



MEDIA@LSE

MEDIA@LSE Electronic Working Papers

Editors: Dr. Rosalind Gill, Dr. Andy Pratt, Dr. Terhi Rantanen and Dr. Nick Couldry

No. 4

The Changing Nature and Uses of Media Literacy

Professor Sonia Livingstone, Media@lse, London School of Economics and
Political Science

Sonia Livingstone (BSc Psychology, UCL; DPhil Social Psychology, Oxford) joined the LSE in 1990 and is now Professor of Social Psychology and a founder member of Media@lse. Her research interests have centred on media audiences, particularly audience response to television genres (talk shows, soap opera, crime media). Her more recent work focuses on the domestic contexts of new media access and use, especially in relation to children and young people's use of new media. Details of her current ESRC-funded project on children's use of the internet can be found at <http://www.children-go-online.net>. Sonia Livingstone teaches on several media and communications courses at MSc and PhD level in the new Department of Media and Communications. In addition to articles and chapters on media audiences, she is author or editor of six books - *Making Sense of Television* (2nd edition, Routledge, 1998), *Mass Consumption and Personal Identity* (with Peter Lunt; Open University Press, 1992); *Talk on Television* (with Peter Lunt; Routledge, 1994), *Children and Their Changing Media Environment* (edited, with Moira Bovill; LEA, 2001), *The Handbook of New Media* (edited, with Leah Lievrouw; Sage, 2002), and *Young People and New Media* (Sage, 2002). She is currently writing her next book, *Children and the Internet*, to be published by Polity Press during 2004.

Contact address:

Professor Sonia Livingstone

Media@lse

London School of Economics and Political Science

Houghton Street

London WC2A 2AE, UK

Tel: +44 (0) 207 955 7710

Email: s.livingstone@lse.ac.uk

Published by Media@lse, London School of Economics and Political Science ("LSE"), Houghton Street, London WC2A 2AE. The LSE is a School of the University of London. It is a Charity and is incorporated in England as a company limited by guarantee under the Companies Act (Reg number 70527).

Copyright in editorial matter, LSE © 2003

Copyright, *The Changing Nature and Uses of Media Literacy*, Sonia Livingstone © 2003. The author has asserted her moral rights.

ISSN 1474-1946

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior permission in writing of the publisher nor be issued to the public or circulated in any form of binding or cover other than that in which it is published. In the interests of providing a free flow of debate, views expressed in this EWP are not necessarily those of the editors or the LSE.

THE CHANGING NATURE AND USES OF MEDIA LITERACY

Sonia Livingstone¹

Abstract

The more that information and communication technologies become central to modern society, the more it is imperative to identify, and to manage the development of the skills and abilities required to use them. Within both academic and policy discourses, the concept of media literacy is being extended from its traditional focus on print and audiovisual media to encompass the internet and other new media. Hence, even though the concept of literacy has itself long proved contentious, there is widespread speculation regarding supposedly new forms of literacy – variously termed computer literacy, internet literacy, cyber-literacy, and so forth.

The present article addresses three central questions currently facing the public, policy-makers and academy: What is media literacy? How is it changing? And what are the uses of literacy? The article begins with a definition: media literacy is the ability to access, analyse, evaluate and create messages across a variety of contexts. This four-component model is then examined for its applicability to the internet, as follows:

- Access rests on a dynamic and social process, not a one-off act of provision. Once initial access is established, developing literacy leads users to alter significantly and continually the conditions of access (updating, upgrading and extending hardware and software applications). Problematically, given socio-demographic inequalities in material, social and symbolic resources, inequalities in access to online knowledge, communication and participation will continue.
- People's engagement with both print and audiovisual media has been shown to rely on a range of analytic competencies. In the audiovisual domain these include an understanding of the agency, categories, technologies, languages, representations and audiences for media. At present, not only is a parallel account of internet-related analytic skills highly underdeveloped but the public has yet to develop such skills and so to make the most of online opportunities.
- There is little point in access or analysis without judgement, but a stress on evaluation raises, rightly, some difficult policy questions when specifying and legitimating appropriate bases of critical literacy – aesthetic, political, ideological and/or economic. The scope and purpose of evaluation is also disputed: is media literacy intended to promote a democratised, diverse, anti-elitist approach to online representations or should it underpin a more traditional, hierarchical discrimination of good from bad, authoritative from unauthorised, information and communication?
- Although not all definitions of media literacy include the requirement to create, to produce symbolic texts, it is argued first, that people attain a deeper understanding of the conventions and merits of professionally produced material if they have direct experience of content production and second, that the internet *par excellence* is a medium which offers hitherto unimagined

¹ The author wishes to thank John Carr, Peter Lunt, and two anonymous reviewers for their comments on an earlier version of this paper.

opportunities for ordinary people to create online content. To exclude this from a definition of media literacy would be to greatly under-utilise the potential of the internet for the public.

Having advocated this skills-based approach to media literacy in relation to the internet, the article identifies some outstanding issues for new media literacy, crucial to any policy of promoting media literacy among the population.

- First, while insights from print and audiovisual media provide a valuable starting point, the literacy required for the use of new media, especially the internet, is also new in ways yet to be established. This is because media literacy is not reducible to a feature or skill of the user, but is better understood as a co-production of the interactive engagement between technology and user. Consequently, literacy is dependent on interface design and it changes as technology changes.
- Second, the article examines the institutional interests at stake in promoting media literacy. Is media literacy intended to promote ideals of self-actualisation, cultural expression and aesthetic creativity or are these subordinate to the use of literacy to achieve a competitive advantage vital to a globalised information society? Or, is media literacy, like print literacy before it, conceived as the key means, even a right, by which citizens participate in society and by which the state regulates the manner and purposes of citizens' participation?

In conclusion, it is argued that literacy concerns the historically and culturally conditioned relationship among three processes: (i) the symbolic and material representation of knowledge, culture and values; (ii) the diffusion of interpretative skills and abilities across a (stratified) population; and (iii) the institutional, especially, the state management of the power that access to and skilled use of knowledge brings to those who are 'literate'.

This *relationship* among textuality, competence and power is grounded in a centuries-old struggle between enlightenment and critical scholarship, setting those who see literacy as democratising, empowering of ordinary people against those who see it as elitist, divisive, a source of inequality. Debates over literacy are, in short, debates about the manner and purposes of public participation in society. Without a democratic and critical approach to media literacy, the public will be positioned merely as selective receivers, consumers of online information and communication. The promise of media literacy, surely, is that it can form part of a strategy to reposition the media user - from passive to active, from recipient to participant, from consumer to citizen.

Debating media literacy

The concept of media literacy, like that of literacy itself, has long proved contentious. The hugely-significant skills of reading and writing² have been augmented by the also-significant skill of 'reading' audiovisual material from the mid-twentieth century onwards. Today, as we witness a further major shift in information and communication technology (ICT), a new form of literacy is emerging, uneasily termed computer literacy, internet literacy or cyber-literacy. Most Western countries are making considerable efforts to develop specifically computer- and internet-based literacies among the population. As Hartley (2002: 136) observes, 'a literate workforce is a pre-condition for industrialised production, and the reproduction of a literate workforce requires large-scale state intervention to disseminate the appropriate type, content and level of literacy for this purpose'.

This new form of literacy, if it is indeed 'new', and if it is appropriately labelled 'literacy', is the focus of much discussion and, it seems, confusion in three distinct but interrelated domains:

- Among the public, as they find new skills required of them at work, in education and at home, the idea of computer literacy is much discussed, even if it is not labelled as such (Livingstone, 2002). What skills are required? How are new ICTs to be used? What new opportunities arise and how can they be maximised? What must one know to avoid dangers? How, where and by whom should children be taught? What are the implications for older, print-based literacy skills?
- In parallel with these everyday struggles, policy makers are debating the regulatory framework required to generate an ICT-literate population. While print literacy has long been a central target for education policy, the hitherto more marginal status of media literacy is now coming to the fore, following the convergence of print, audiovisual and computer-based media. In the UK, the

² Luke (1989) carefully traces the spread of literacy in Europe from the first printing press in the mid fifteenth century, accessible only to the privileged few through to 'institutionalised mass literacy' by the eighteenth century, a development which required not only the spread of printed texts but also 'the birth of the school', the standardisation of written language, the construction of our now-familiar category of 'childhood' and the displacement of oral culture. Adopting a Foucauldian approach to the history of the idea of childhood in Europe, she argues that 'print, literacy, and education must be viewed as historically concomitant phenomena' (p.9), within which 'the child was an intrinsic component – an important object of attention – of these discourses since it was seen that the possibility for reform lay with the proper training of children' (p.44; c.f. Foucault, 1991). Kress likewise emphasises the relation between literacy and power: 'writing has been the most valued means of communication over the last few centuries – the one that has regulated access to social power in Western societies' (Kress, 1998: 59).

Communications Bill (2003) places an unprecedented responsibility on the new, converged media regulator 'to promote media literacy' in the population.³

- Within the academy, questions of literacy are once more central to the research agenda, drawing together a multidisciplinary mix of specialists in literacy (from linguistics, history), culture (cultural studies, anthropology, sociology), media education (media studies, education), human-computer-interaction (computer science, psychology), and new technologies (information science, social studies of technology) (c.f. Gurak, 2001; Kellner, 2002; Kubey, 1997; Poster, 2001; Tyner, 1998; and Warnick, 2002).

The more that ICT skills become vital to participation in modern society – in the workforce, the public sphere, social relations, education, culture – the more it is imperative to identify clearly the issues at stake. Is the literacy required for today's communication and information environment an extension of, or a radical break with, past traditions of knowledge and learning? Are we dealing with one or many literacies? History tells us that even the narrow and common-sense meaning of the term - 'being able to read and write' – masks a complex history of contestation over the power and authority to access, interpret and produce printed texts (Luke, 1989). Scope for contestation is magnified as the materiality of symbolic texts increasingly relies on audiovisual or computer-based technologies, inviting analysis of 'reading television' (Fiske and Hartley, 1978), 'reading the romance' (Radway, 1984), or the new skills of reading hypertext and other virtual environments. Many have argued further for a - perhaps metaphorical - extension of literacy to include reading culture (Hirsch, 1987) or even 'reading the world' (Freire and Macedo, 1987).

At this point, the term 'literacy' may need some defence. It is opaque. It is contested. It seems to apply to a past world of authoritative printed books⁴ and it stigmatises those who lack it. The spawning of new literacies, as diverse academic disciplines and equally diverse stakeholder interests converge on the debate, seems infelicitous,

3 Specifically, the Communications Bill sets out, in Clause 10 of the Functions of OFCOM, the 'Function of Promoting Media Literacy', including six discrete dimensions of media literacy as applied to all electronic media, both broadcast to the public and published on any electronic communications network. As the Explanatory Notes to the Bill state: "This clause provides that it shall be a function of OFCOM to secure increased public awareness and understanding of material published by electronic media, the purposes for which such material is selected or made available for publication, the available systems by which access to such published material is or can be regulated, and the available systems by which persons to whom such material is available may control what is received" (paragraph 30).

4 In his mini-essay on the key word, 'literature', Williams (1976) traces the historical emergence of the term 'literacy' in relation to 'literature'. 'Literature' once combined the adjectival meaning of being discerning and knowledgeable according to the 'standards of polite learning' with the noun which describes a body of writing of nationally-acknowledged aesthetic merit. Today, 'literature' refers to the latter alone, with its own adjective, 'literary', while from the end of the nineteenth century, 'literacy' (and its adjective, 'literate') 'was a new word invented to express the achievement and possession of what were increasingly seen as general and necessary skills' (1976: 188). The demarcation of high and low culture is, thus, built into the history of literacy through the historical link with literature, the term only being needed when, as the ability to read spread beyond the elite, ever more people had the skills to read but did not use them to become familiar with the literary canon (i.e. they were literate but not literary). At this point also, the uses of literacy became subject to regulation (Luke, 1989).

clumsy – already we have computer literacy, cyber-literacy, internet literacy, network literacy, digital literacy, information literacy. It is unclear how these relate to, whether by contrast or through continuities with, such earlier concepts as print literacy, audiovisual literacy, critical literacy, visual literacy, oral literacy, cultural literacy or social literacy.⁵

Rather than become entangled in terminological disputes, and in order to facilitate dialogue between the academy and policy makers, this article will use the term ‘media literacy’ to cover the *use* of material either broadcast or published on electronic communications networks, though my focus will be on challenges posed by the convergence of print, audiovisual and computer media, particularly since widespread public use of the internet.⁶

Rejecting the a-historical view that ‘real’ literacy means reading and writing, all other uses of the term being merely metaphorical, this article takes as its premise the view that literacy refers to the interpretation of any and all mediated symbolic texts.⁷ Hence it should be construed broadly, drawing into a productive multidisciplinary debate the hitherto separately studied questions of reading print, television audiences and the use of computers.⁸ Because literacy centrally concerns mediated communication, various other terms offered instead of ‘literacy’ – competence, human capital, cognitive skill, etc – will not suffice. These alternative terms neglect the textuality and technology that mediate communication and they encourage a universalist framework that neglects the important historical and cultural contingency of both the media and the cognitive and social knowledge processes that interpret them.⁹

5 See Hirsch (1987), Kintgen et al (1988), Street (1995), Vincent (1989). Media literacy has faced its own problems, seen as antimedia, disguising a political agenda, hostile to high culture and difficult to implement (Hobbs, 1998).

6 In other words, media literacy can no longer refer only to audiovisual material but must include the internet – this in turn referring not only to the world wide web but also to email, internet-chat, online games, etc. Since use of the internet relies on use of computers (and, soon, use of mobile telephones, digital television, etc), technological convergence is sweeping all forms and uses of mediated symbolic texts under the umbrella term ‘media’. This is the sense of the term as used by the UK Government in its forthcoming Communications Bill (2003).

7 This is consistent with the UK Government’s definition, which focuses on literacy at the level of the word, the sentence and the text, across different media (reading, writing, speaking, etc). <http://www.dfes.gov.uk/parents/curriculum/home.cfm> (accessed 18 February 2003).

8 In Lievrouw and Livingstone (2002) we address the new terminological difficulty with labelling people and their activities in the new media environment. The term ‘audience’ only satisfactorily covers the activities of listening and watching (though even this has been expanded to include the activities which contextualise listening and viewing). The term ‘user’ seems to allow for diverse activities online - playing computer games, surfing the web, searching databases, writing and responding to email, visiting a chatroom, shopping online, and so on, but it tends to be overly individualistic and instrumental, losing the sense of a collectivity which is central to ‘the audience’, and with no necessary relation to communication at all.

9 Note that there is little stigma attached to lacking a skill, whether the skill of driving, knitting or public speaking – certainly compared with the stigma of being unable to read. Twenty years ago, computer use could be called a skill in this sense – perhaps a source of pride if you could use it, but not a matter of shame if you could not. Increasingly, as computer use is ever less a lifestyle option, ever more an everyday necessity, inability to use computers or find information on the web is a matter of stigma, of social exclusion; revealing not only changing social norms but also the growing centrality of computers to work, education and politics (Castells, 2002).

Bearing these themes in mind, this article addresses three central questions currently facing the public, policy-makers and academy: What is media literacy? How is media literacy changing? What are the uses of literacy?

Defining media literacy

When a single term is used across diverse domains, confusions are bound to arise. Definitions range from the tautological (e.g. computer literacy is ‘the ability to use’ computers and the internet¹⁰) to the hugely idealistic: ‘the term literacy is shorthand for cultural ideals as eclectic as economic development, personal fulfilment, and individual moral fortitude’ (Tyner, 1998: 17). Nonetheless, in a milestone conference held in the USA in 1992, a clear and concise definition emerged. Media literacy – indeed literacy more generally – is the ability:

‘to access, analyse, evaluate and communicate messages in a variety of forms’¹¹

Since this definition has been widely adopted, and since it substantially resembles many other definitions, I will take this as a starting point. However, as all aspects of literacy enhance communication, the fourth component is better labelled ‘content creation’, the key being creation (or production) rather than reception of content. I hope to show below that this four-fold definition applies well to the information and communication environment a decade on, providing a useful framework to map what is known and not known regarding media literacy as well as to pinpoint the areas of controversy.

Access

By identifying access as the first prerequisite of media literacy, the digital divide debate is brought under the umbrella of the media literacy debate. Access involves far more than physical availability, for there are subtle and not so subtle social, cultural and technological dimensions to access – including permission to use a machine, knowing how to install or run software, and peer-group norms over appropriate practices. Understanding the barriers to access has been long debated in relation to print media (raising concerns about education and social mobility) and in relation to telephony (here centring on the role of universal service provision in ensuring social participation). It has posed fewer problems for using audiovisual

¹⁰ Bertelsmann Foundation’s 21st Century Literacy Summit (www.21stcenturyliteracy.org); accessed 6 June 2002.

¹¹ National Leadership Conference on Media Literacy (Aufderheide, 1993: p.xx). See also Journal of Communication special issue on media literacy (Christ and Potter, 1998) and the Alliance for a Media Literate America, www.nmec.org/index.html, accessed 6 June 2002.

media until recently, although now the multiplication and commercialisation of television channels puts universal participation in a shared culture and the provision of free-to-all public service back on the agenda. In the new media age, the challenges of ensuring equality in education, participation and culture are converging together with the media that support (or undermine) them.

Access rests on a dynamic and social process, not a one-off act of provision. The 'career' of the computer in the home, and the nature and quality of access it affords unfolds through an interaction with the growing and changing skills and expectations of its users. Which computer you buy, what software you choose, how you upgrade it, which ISP you sign up with, where you put the computer in the home, who is allowed to use it and for what – all these are matters of access which are resolved very differently by the 'literate' and by novices. And once initial access is established, developing literacy leads users to alter significantly and continually the conditions of access. Take the simple case of email: for many adults, gaining email access means getting an email address and thereafter using it; but for children and young people, email access may mean establishing multiple addresses, at various times, under different identities, in order to contribute to more or less overlapping peer networks - no simple matter.

As access is no simple matter of hardware provision, it must be evaluated in terms of the ongoing nature and quality of access to media technologies, contents and services. Detailed observation of domestic practices surrounding new media use has shown that the nature and quality of media use crucially depends on financial resources (not only for the one-off purchase of a computer, for example, but also for technical updates, speed of internet connection, etc), disposable time and appropriate spatial arrangements (affecting concentration, privacy, pleasure), technical competence (from installing software to using a search engine or digital programme guide), social capital (e.g. having a neighbourhood guru for support and advice) and cultural conventions governing use (e.g. gendered prejudices regarding computer use, or parental rules constraining children's use). (Facer et al, 2001; Livingstone, 2002; Ribak, 2001).

Lastly, while media access does not simply determine use, we need to understand how the two are linked. For example, observations of children's domestic internet use suggest that given an anxious parental context fearful of online dangers, children may engage cautiously with online contents, missing out on potential benefits and inhibiting the free exploration which encourages learning and literacy. A more

laissez-faire attitude on the part of parents may support a more confident, even creative, use of the internet, although perhaps lacking in the guidance which ensures effective learning.¹² There is much to be learned here from television literacy, where it is clear that the social context in front of the screen (parental involvement, concurrent conversation, critical observation, etc) frames and directs the nature of the engagement with, and the potential learning from, what is shown on the screen (Buckingham, 2000; Livingstone, 1998; Silverstone, 1994; Singer and Singer, 2001).

Analysis

Questions of equality in knowledge, culture and participation through media are not simply to be resolved by addressing the question of access. The nature and quality of media use is crucial. Users must be literate in the sense of being competent in and motivated towards certain cultural traditions and values: if one merely owns *Macbeth* plus the basic ability to read, it is likely to remain 'a closed book'. Setting aside for the moment the contentious extension of literary criticism to the analysis of popular culture, research on the audience's engagement with audiovisual media has shown that a sustained and satisfactory engagement with these media rests on a range of analytic competencies.¹³ Lest this sound like watching television is hard work – for certainly, exercising analytic skills is not necessarily experienced as effortful - two arguments may be briefly rehearsed.

First, viewers 'work' to interpret media contents both during and after viewing, as is evident from one's bewilderment when exposed to the media of a very different country, or when appreciating the task faced by children in learning the audiovisual literacy skills that adults have come to take for granted (discriminating programmes from advertisements, fact from fiction, objective news from persuasive argumentation, forming different expectations for different genres, speculating about narrative development in drama, and so forth).¹⁴ Second, it is striking that media fans, who perhaps get most pleasure from a text or genre, are the most knowledgeable, committing considerable resources to learning all they can, resulting in a sophisticated level of textual analysis which, if exercised in relation to less 'trivial'

12 Livingstone and Bovill (2001) show how social, cultural and educational factors frame the ways in which children are learning (or failing to learn) formal and informal internet-related literacy.

13 The quality of the text matters in addition to the competence of the reader, the textually-inscribed 'role of the reader' – in Eco's terms - interacting with socially-located, particular readers. As Eco (1979) argues, James Bond is written so as to be accessible to all and sundry, but then offers little beyond an ephemeral pleasure and a reinforcement of prejudices; James Joyce writes for those with a considerable literary and cultural knowledge, but then offers a richness and complexity of vision.

14 While the reader-response theorists (Eco, 1979; Iser, 1980) have identified these competencies for the reader of literary works, media scholars have identified parallel interpretative skills required to decode audiovisual media (Hall, 1980; Hodge and Tripp, 1986; Liebes and Katz, 1995; Livingstone, 1998). It is these familiar skills that media education programmes seek to teach to children (Buckingham, 1998; DCMS, 2001).

texts than *Star Trek*, *EastEnders* or *Elvis*, might be more readily recognised as literate, even literary (Jenkins, 1992).

The ability to analyse symbolic texts lies at the core of literacy, and so specification of the skills required for analysis has been the focus of media education curricula. Buckingham (1998), building on Bazalgette's (1999) work, outlines a six-fold scheme which teaches students to address questions of media agency (communicative purpose, institutional and production context, political economy), media categories (genres, forms, channels), media technologies (production process, access and use), media languages (codes and conventions), media audiences (modes of address, reception and consumption), and media representations (relation between text and reality). As an initial specification of the analytic competence required also for effective use of the new media, this is a valuable framework. However, when faced with newer media we must recognise that our analytic repertoire was established in relation to print, requiring considerable work even to extend it to encompass audiovisual media. Hence, in relation to both *MacBeth* and *The Simpsons*, children are taught to use literary terms to analyse texts – genre, narrative, authorial voice, modality, literary merit, etc.

But these reflect the legacy of a print-based literacy, and are far from timeless or universal forms of analysis. Some significant challenges arise in extending this scheme to new media. On the world wide web, it is even difficult to determine features most basic to any printed text – author, publisher, date of publication; and without an author, how does one judge authenticity? More generally, designers, technologists, educationalists, commercial producers, and academics lack an agreed language for characterising the emerging and shifting representations of the world wide web, let alone those of games, MUDs, IRC, etc. Methodologically, the lack of the equivalent of a shelf of books or video tapes, means that new media researchers must characterise the texts, genres and forms of their medium without any easy way of capturing their materials.¹⁵

In the interim, lack of a rigorous analysis of online content permits naïve statements of the 'new world of information' to often go unchallenged. (Audiovisual) Media literacy programmes have long been concerned to disabuse their students of the myth of the transparent provision of accurate, unbiased information, a favourite exam

¹⁵ In other words, people cannot be expected to become literate internet users if academics and policy-makers cannot specify precisely what the internet is, what are the key features of content in which people are to become literate. Here proponents of literacy education face a novel problem: printed texts preceded education in reading and writing, a sizeable critical enterprise to analyse audiovisual texts developed several decades in advance of early media education. But for the internet, the medium and education in its use are developing hand in hand. See Burbules (1998), Fornas et al (2002), LaFrance (1996) and Turkle (1995) for developing strategies for online textual analysis.

question being, 'television is a window on the world: discuss'. Analogous work to identify the technological characteristics, textual preferences, normative assumptions, biased framing and skewed modes of address of the world wide web are just beginning (e.g. Burbules, 1998). Once a critical analysis progresses, we will have a better idea of whether 'the internet is a window on the world' and – assuming the answer is negative - a better sense of the task of promoting critical media literacy.

Already, the first steps are being taken in teaching children and adult users the analytic skills required to understand the formal qualities of the internet - how websites are constructed, the home page, hypertext links, keywords, search directories and search engines, etc. While at present, many lack basic skills in searching, interpreting, evaluating, downloading, integrating and generally making the most of the wealth of information potentially available (Livingstone and Bovill, 2001), we may expect an abstract prescription of the analytic competence required to be a literate user of new media and the internet to develop in tandem with (and, one would hope, somewhat in advance of) the development of these competencies among the population.

Evaluation

There is little point in access or analysis without judgement. Sceptics watching people aimlessly surfing the web have sought to deflate the hyperbole surrounding the internet by arguing – in a direct analogue of those early attacks on television's 'couch potato' audience – that without either a laudable purpose or critical discernment, the benefits of internet access will come to nothing. Imagine the user who cannot distinguish dated, biased or exploitative sources, unable to select intelligently when overwhelmed by an abundance of information and services. Clearly, evaluation is crucial to literacy. But, this raises some difficult policy questions regarding the basis and goals of teaching critical literacy and, ultimately, regarding state promotion of a critical citizenry.¹⁶

Let us step back a little, to review the very different terms in which, historically, critical literacy has been promoted. Focusing on the UK context, Buckingham (1998) traces the close relation between developments in cultural criticism and the driving principles of media education. In the Leavisite tradition, teaching critical literacy has meant teaching literary – or aesthetic – criticism, training students in discrimination

¹⁶ Interestingly, the Department for Culture, Media and Sport's recent 'Media Literacy Statement' (2001) places its primary emphasis on 'the ability to think critically about viewing – i.e. to understand why one likes or dislikes certain programmes or genres and relate such preferences to moral and intellectual reference points; and, having done so, to take greater responsibility for viewing choices and the use of electronic media'. However, the focus is on audiovisual material, and the additional requirement noted by DCMS - technical competence in terms of navigation skills for the new electronic media landscape – has yet to take us beyond the question of access.

so as to preserve the literary heritage and to inoculate them against the crude manipulation of the mass media. Subsequently, one signal achievement of cultural studies has been to demonstrate that judgements of cultural quality are inextricably tied to questions of cultural authority and cultural politics, beginning with Williams' and Hoggart's concern to teach the distinction between the oral culture of the working class from the mass produced entertainment offered by television so as to preserve the traditional, moral integrity of the nation.¹⁷ In a third phase of media education, in the 1970s, Screen Theory's ambition was to draw on the supposedly objective analysis of semiotics to teach the demystification of ideological messages in order to liberate students from their manipulation (Masterman, 1985).

In each phase, Buckingham argues, a particular version of the tension between a positive approach to education-as-democratisation (and against elitism) and a defensive or paternalist approach to education-as-discrimination (demarcating high from low, popular from mass, dominant from resistant) has been played out, this tension ultimately undermining the position of the media educator and the effectiveness of their teaching. Indeed, while the Bob Dylan/Dylan Thomas debate unsettled old certainties in the teaching of literature, the question of cultural quality or value has often threatened to derail the media education movement entirely (Hobbs, 1998; Katz et al, 2003; Kubey, 1997). Interestingly, though perhaps unsurprisingly, exactly this tension continues to shape contemporary discussions over the appropriate *uses* of newly-gained ICT literacy, with the over-used phrase, 'empowerment', being open to both a democratic and defensive construction, thus perpetuating the ambivalence underlying – and undermining – media education.

However, print and audiovisual texts share a crucial characteristic not applicable to the internet, namely they are produced in a context of scarcity rather than abundance: few people have access to the systems of production and distribution, maintaining the distinction between producers and consumers, and key filters operate to select material to be distributed, depending on any or all of cultural quality, ideology, market pressure or professional production values. Hitherto, therefore, critical literacy has in one way or another centred on teaching students about these filters and their consequences. But since almost anyone can produce and disseminate internet contents, with fewer – and very different kinds of - filters, the

¹⁷ In celebrating the literacy inherent in popular culture, in the sense of a working class oral tradition rooted in a concrete, personal and moral wisdom, Hoggart decries the mass media thus: 'They make their audiences less likely to arrive at a wisdom derived from an inner, felt discrimination in their sense of people and their attitude to experience' (1957: 339). As he continues, 'Most mass-entertainments are in the end what D. H. Lawrence described as 'anti-life'. They are full of a corrupt brightness, of improper appeals and moral evasions' (1957: 340).

basis of critical literacy must alter, while teaching users to question the authority, objectivity or quality of mediated knowledge becomes ever more crucial.

Being able to evaluate content is thus no simple skill – though being taught to identify the date or author of a website would help – rather critical evaluation rests on a substantial body of knowledge. Bazalgette (1999) terms this component of literacy ‘contextualisation’, requiring the teaching of the broader social, cultural, economic, political and historical contexts in which media content is produced. In relation to the internet, Burbules (1998: 110) begins to map a critical semiotics for the online environment, arguing that ‘a thoughtful hyperreader asks why links are made from certain points and not others; where those links lead; and what values are entailed in such decisions’. Here the adage that critical thinking should centre not on answering questions but on questioning answers points the way (Quinn, 1997).¹⁸ As I shall consider below, critical literacy teaching means using the internet not as a convenient source of right answers for homework but as a new environment for questioning, reflecting on, qualifying that which at first sight seemed straightforward.

If at present, people’s analytic skills online are limited, partly awaiting an analytic language to characterise the medium to which analysis is to be applied, this is even more the case for evaluative or critical skills. It seems at present that most children and young people are not taught and so do not have much contextual knowledge or critical evaluation skills (Livingstone, 2001); nor is there evidence that critical literacy for familiar media (what is an advertisement, how is news objective, who is the target audience for a film) being applied with any consistency to the internet. Many favour global brands without understanding their commercial basis or purpose and they lack the skills to test the objectivity or balance of the information available, judging instead its aesthetic qualities and its adaptability to their immediate purposes.

In policy terms, where the challenge is still that of how to ‘go beyond’ access, a new curriculum for media literacy education is required. In relation to critical literacy, this raises the question of the basis and the legitimacy for taking a critical position. All agree that children should be able to distinguish authoritative sites on the Holocaust from Holocaust denial sites. But other distinctions are less straightforward. Who offers the ‘best’ account of environmental hazards – the Ministry for Agriculture or Greenpeace? Is a good website one that provides the facts objectively or one that questions ‘the facts’? Should critical literacy include a knowledge of, even a critique

¹⁸ As research on both print readers and audience reception has shown, once a basic literacy of form and genre has been attained, increased sophistication will result in multiple interpretations rather than any singular, right and consensual view of media content (Livingstone, 1998).

of, the commercial basis of the web – of branding, walled gardens, the commercial interests which structure search directories, etc? The desired nature and extent of critical literacy has yet to be thoroughly debated in policy contexts, and distinctions must be drawn between aesthetic, political/ideological and economic bases for evaluation.¹⁹ More problematic still, as media literacy programmes work to identify online markers of expertise and trustworthiness, organisations of all kinds are ready to modify their website style and design so as to incorporate these and other features, thereby enhancing the credibility judgments of users.

Content creation

Not all definitions of media literacy include the requirement to create, to produce symbolic texts. Most often, people have access only to media products rather than the production process, being primarily receivers rather than senders of messages. Indeed, the history of print literacy shows that, while teaching the population to read was highly contentious, teaching people to write came much later, following yet a further struggle between the elitist interests of the establishment and the democratising trends of the enlightenment (Kintgen, et al, 1988). In audiovisual media education, a parallel struggle has been apparent, although often argued in terms of pedagogic effectiveness: children, it is claimed, attain a deeper understanding of the conventions and merits of professionally produced material if they have gained experience in content production themselves (Sefton-Green, 1999; Hobbs, 1998). To facilitate such direct experience, the media education movement has developed valuable links with community and alternative media organisations, adding both a creative and a politically radical flavour. This argument, for giving the tools for communication to the ‘voiceless’, has recently converged with the language of human rights, media education furthering the rights of self-expression and cultural participation.

The internet sets some challenges for a normative view of content production. In relation to the world wide web, a crucial opportunity is opened by now that one and the same technology can be used for both sending and receiving, with desktop publishing software (along with easy-to-use web creation software, digital cameras and webcams) putting professional expertise into the hands of everyone. However, while to adults the internet primarily means the world wide web, for children it means

¹⁹ Such debates will be fraught, reflecting the bifurcation between enlightenment (or administrative) and critical schools of thought (Lazarsfeld, 1941). Intriguingly, the view that media literacy should have an explicit political and ideological agenda has been endorsed across the political spectrum (Hobbs, 1998). A liberal pluralist view holds that media literacy can promote critical understanding, empowering individuals without promoting any one political agenda. The progressive position is that media literacy can be used to promote the particular values of social tolerance, public interest, local culture, etc. More radically, media literacy has been seen as a means of questioning textual authority, social hierarchy and dominant ideology. On the other hand, conservatives see media education as a preferable alternative to heavy-handed government regulation of the media industry.

email, chat, games - and here they are already content producers. Too often neglected, except as a source of risk, these communication and entertainment-focused activities, by contrast with the information-focused uses at the centre of public and policy agendas, are driving emerging media literacy. Through such uses, children are most engaged – multi-tasking, becoming proficient at navigation and manoeuvre so as to win, judging their participation and that of others, etc. Bearing in mind that the elite realm of high culture has already been breached, who is to say that this form of content creation counts for little? In terms of personal development, identity, expression and their social consequences – participation, social capital, civic culture – these are the activities that serve to network today's younger generation. Those who do not participate, for whatever reason, are as surely excluded as those who do not or cannot use the world wide web.

Arguably, teaching the skills required to produce content is more crucial than ever. Indeed, not to do so would be positively disempowering for citizens given the present rush to duplicate, or even to displace, our present social and political institutions online.²⁰ At present, however, few people appear to know of, to be offered or to take up these opportunities (Livingstone and Thumim, 2003). This takes us back to the question of access: society should surely provide access to the tools of content creation as well as content reception and use.

In advancing policy in this area, it would help to disentangle the three arguments in its favour, namely, the pedagogic argument that people learn best about media through making it, the employment argument that those with new media skills are becoming increasingly needed as the ICT sector expands, and the cultural politics argument that citizens have the right to self-representation and cultural participation through media. Given the comparatively low levels of content creation in the population, it may be that these three arguments could be mutually supportive, together legitimating content creation as a central plank of a democratising media literacy policy.

²⁰Nonetheless, including content creation in ICT-based literacy is likely to be more widely welcomed than for audiovisual media, where teaching children to produce as well as consume audiovisual media has required very expensive equipment and resulted in only very low-quality products; moreover it has been offered more often to low-achieving pupils while high-achievers maintain their lead through studying high culture (Hobbs, 1998). However, given the pace of change in the media environment, we must hear more from those who are experimenting – bringing in the many cases and initiatives from alternative and community media into mainstream discussion (CME, 2000; Jankowski, 2003; Sefton-Green, 1999).

New technology, new literacies

The skills-based definition developed thus far applies across all media, relying on terms that are deliberately not medium-specific. This has the advantages of generality and historical continuity, focusing on interpretative skills long valued in Western culture. And in a media environment characterised by rapid change and by convergence in technology, usage practices and policy frameworks, a pan-media or media-neutral definition of literacy is practical.

But, what of the specific skills and competencies required by new media? Must we now reconsider the close, long-established links between interpretative skills, literacy and print? In short, does literacy change (and become plural – ‘literacies’) as the media change? There are two components to the widely-advocated view that it is indeed changing: first, that literacy is not simply a feature of the user but that it is medium-dependent, a co-production of the interactive engagement between technology and user; and second, that the literacy associated with the use of new media, especially the internet, is significantly different from that of print and audiovisual media.

Literacy as medium-dependent

Literacy raises some complex issues regarding the relation among medium, user and the design of the interface between them. Visualise someone reading a book, watching television, playing a computer game, searching the world wide web. Evidently there is not only skill involved but also an interpretative relationship with a complex, symbolically-encoded text as mediated by a particular technology. It is this engagement with text that distinguishes information and communication technologies from other technologies – which is why we call a competent user of the washing machine or car ‘skilled’ but not ‘literate’.

If literacy is an emergent property of the interaction and mutual dependence between people and ICT, any communication failure may be as much a result of poor interface design as of poor education – we should ask, does responsibility lie with the (illiterate) reader or the (illiterate) text?²¹ Yet in discussions of literacy and, especially, of the population’s failure to achieve certain levels of literacy, it is implicitly assumed that interfaces are well-designed, that the resources are clearly available and merely await appropriate use. But interfaces also obscure, impede, undermine, although doubtless as design improves and technological innovations continue, many of the irritations and

21 The questions of how to make new media contents accessible to the visually impaired is an interesting case – expensive to implement, apparently heavy-handed if enforced by government regulation – yet without it, some will be socially excluded and end up less media literate.

frustrations produced by the computer interface will be eliminated (Isaacs and Walendowski, 2002).²²

Such issues have greater salience for new technologies than for old. For the centuries during which literacy meant print literacy, the dependence of literacy on a specific medium was in many respects taken for granted, and we tend not to consider the particular ways in which the character of printed text shapes the abilities required to decode it. Nonetheless, being able to read and write requires a familiarity with a set of para-textual conventions whose historical and cultural specificity should be recognised. For example, the author (together with a biography or institutional affiliation), the publisher and the date of publication are all set out clearly at the beginning, and these are decoded in terms of cultural value, authority, being up to date, etc. The layout, including balance between words and images, sequencing of segments or chapters, use of contents page, subheadings, bibliography and index, must be interpreted appropriately. These textual conventions are paralleled by the literacy skills of readers. Psychological research on reading reveals the dependence of the interpretative strategies of the reader on the structure of the text – influencing visual scanning of the page, checking back and forth or across headings and following the narrative or logical structure of text segments (Coltheart, 1987).

In the audiovisual domain, television audience reception research also reveals parallels between the conventions of television programmes and viewers' decoding strategies. The soap opera viewer, for example, builds up an understanding of the characters, puzzles over the secrets, eagerly anticipates the cliff-hanger, guesses the outcome of a subplot, recalls when appropriate the significant events from past episodes, etc, all in accordance with the conventions of the genre (Livingstone, 1998).

But what do we know of someone engaging with a computer screen, searching the web or playing an adventure game online? Even the most sophisticated commentators can be seen here to fall back on common-sense description of personal experience. Research is now needed to identify the skills and conventions required to interpret and critique online text or to make effective use of online communication or entertainment services.

22 Isaacs and Walendowski (2002) argued that widely-used, supposedly 'user-friendly' software regularly flouts standard conventions for face-to-face conversation — offering inappropriate or unnecessary information, performing in an unpredictable way, requesting irrelevant information or providing misleading information, and offering confusing or even rude messages. Transgressions of these everyday rules include requiring users to make unnecessarily clicks, failing to retain preferences, pop-ups which break the user's flow, asking daft or confusing questions, presenting users with muddled and overfull webpages, failure to give feedback on whether or process worked or how long it might take and, lastly, the downright rude blaming of the user – 'fatal error', 'illegal' or 'invalid'.

From print to screen

The skills and conventions required to engage with the internet may or may not be new. As commentators are divided over whether or not the internet offers a radically new information and communication environment. Hence it remains an open question as to whether the ability to access, analyse, evaluate and create communication content is common to or different for the book, for television, for the internet?

If one takes the view that using computers simply requires a minimal technical proficiency (keyboard skills, clicking on hyperlinks), and that the internet offers 'old wine in new bottles' (as familiar contents are made accessible online), then literacy would neither be dependent on, or changed by, the technological shift from page to screen. Media literacy programmes to enable the population to access, analyse, evaluate and create content would therefore need little amendment as internet access spreads. But if, through its mediating role, ICT is seen to transform knowledge and culture, then this minimal conception of literacy is only the beginning of the story, and the challenges ahead will extend beyond the promotion of technical proficiency to reconsidering some deeply-entrenched notions of thinking, learning and authority.²³

Technology enters this story as a key but ambiguous player. The future character of the internet is being shaped by today's social uses, these centring on a struggle for control vs. freedom, for hierarchy vs. heterarchy, for privatisation vs. the public sphere (Castells, 2002; Poster, 2001). Attempts to specify just what is technologically new about the internet at present include the following: multimedia text (requiring multimodal engagement and multiple literacies), hypertextuality (rather than singular, linear, fixed text), anarchy (an organisational principle which is 'deliberately non-organised') and synchronous communication (Castells, 2002; Lievrouw and Livingstone, 2002; Newhagen and Rafaeli, 1996; Poster, 2001). In combination, these features underpin the much-discussed interactivity of new media, it being interactivity which marks the greatest disjunction in the literacy requirements of old and new media.²⁴

²³ The fundamental debate over the nature of literacy asserts, on the one hand, the importance of preserving traditional cultural values, authoritative forms of knowledge, (print-based) standards of literary expression, and a clear separation between education and entertainment; and on the other hand, the importance of facilitating multiple, context-dependent conceptions of value, diversity in forms of knowledge, a plurality of literacies, and a blurring of boundaries between knowledge and entertainment, work and leisure, education and play.

²⁴ Interactivity can be usefully subdivided into social interactivity (among users, e.g. email), textual interactivity (between user and documents, e.g. the world wide web) and technical interactivity (between user and system, e.g. games) (see Fomas et al, 2002; McMillan, 2002).

Hypertext, for example, challenges print's long-established prioritisation of linear directionality, for hypertext 'offers different pathways to users... The extent of hypertext is unknowable because it lacks clear boundaries and is often multi-authored' (Snyder, 1998b: 126–7). What this means for users is that, although until now 'the conventions of reading, like those of writing, have grown out of the structure of sentences flowing into paragraphs, paragraphs flowing into pages, pages followed by other pages' (Burbules, 1998: 106), on the world wide web relations among elements are based primarily on bricolage²⁵ or juxtaposition rather than a linear logic: hence, 'hypertext seems to *add* dimensions of writing, and to that extent may encourage new practices of reading as well: ones that might prove more hospitable to alternative, non-traditional points of view and more inclusive of cultural difference' (Burbules, 1998: 107).

Kress (1998) analyses the turn to the visual in new media, arguing that not only are images becoming more dominant as a form of representation but that writing is undergoing a transformation in the direction of the visual, ever less organised according to syntactic hierarchy, arranged instead according to a rival logic of surface visual display.²⁶ Even the bewilderment which parents (but rarely children) may feel about the computer games their children play or when faced with a new computer and no comprehensible rule-book for getting started is seen as testifying to this 'literacy gap': today's children, it is argued, 'understand things in multiple, contingent, spatial structures rather than in serial and chronological orders' (Johnson-Eilola, 1998: 202-3).²⁷ Taken together, these are some of the changes Turkle (1995) analyses when she develops an overarching contrast between the aesthetics of the culture of calculation and the culture of simulation (see also Poster, 2001, on changing modes of information).

Learning depends on the relation between learners, forms of knowledge, and the structures and practices of the education system. It follows, from the above arguments, that not only might the internet facilitate new forms of representation and hence a new literacy, but this in turn might be opening up new ways of learning and

25 Hartley (2002) contrasts bricolage with engineering, where the former 'requires pre-planning, submission to various laws of physics and the organisation of materials and resources prior to the act of assembly, bricolage refers to the creation of objects with materials to hand, re-using existing artifacts and incorporating bits and pieces'.

26 Images are no longer simply the illustrative accompaniment to the 'real' information conveyed through writing; rather images increasingly replace the narrative mode of expression with the mode of display, focusing attention, showing part-whole or other forms of organisation, communicating through font, colour, arrangement on the page, and so forth (Kress, 1998).

27 Hence, Johnson-Eilola (1998: 190) concludes that 'far from being isolated, neutral objects, computer interfaces play out a range of assumptions, authorisations, and challenges to literacy practices'. He pursues this theme by analysing some of the ways of thinking and communicating encouraged by children's software, particularly drawing out how they value 'the ability to process multiple streams of information simultaneously, and the propensity to experiment in free-form, ill-defined problem domains' (Johnson-Eilola, 1998: 191).

so a new model of education.²⁸ For Tyner (1998: 8), 'the literacy of schooling, based on a hierarchical access to print literacy, is increasingly at odds with the kinds of constructivist practices necessary to accommodate the more diverse, interactive, and less linear media forms made available by digital technologies'. Similarly, Snyder (1998: 135) suggests that 'if teachers are prepared to transfer to students much of the responsibility for accessing, sequencing and deriving meaning from information, hypertext can provide an environment in which exploratory or discovery learning may flourish'. And Kellner (2002: 90) argues that 'in a period of dramatic technological and social change, education needs to cultivate a variety of new types of literacies to make education relevant to the demands of a new millennium'.

While it may be that the learning process is changing, it is much less clear that the content is also changing. Website design commonly encodes what Hall (1980) called the preferred or ideologically dominant reading (through such rhetorical strategies as frequently asked questions, recently asked questions, top ten lists, fact of the week, our favourites). Rarely does the world wide web invite children to judge for themselves the truth or value of the information it offers, moreover they rarely suggest any criteria with which to conduct an evaluation. And notwithstanding the vast array of online information from which to select, current use of the internet in schools continues to favour 'right answer' learning, (Loveless and Ellis, 2001). In short, both online, through the re-imposition of hierarchical print-based models of authoritative information, and offline, through the attempt to perpetuate tried-and-tested traditions of teaching, learning and assessment, there is a considerable counter-force holding back the socially and technologically-inspired moves towards a radical break in the history of literacy.

Hence, it could be argued that many of the literacy requirements now associated with the internet might, instead, be continuous with the literacies of past decades, even centuries. Much that is claimed to be intrinsically new to the internet – heterogeneity of sources, competing authorities, non-linear or visual forms of representation and so forth – has surely long applied to libraries, encyclopaedias, textbooks etc. And the dismay of parents and teachers in contemplating the activities of the younger generation is hardly the sign of a radical break with the past. On this more critical view, then, irrespective of how the technologies themselves are changing, the social uses of information technologies work to reproduce and reinforce traditional literacy

28 Studies of how children learn ICT skills suggest that children 'just do it', figuring it out intuitively through trial and error, testing out hunches, 'just mucking around', and by drawing where needed on informal 'teachers' (relatives, friends) (Smith and Curtin, 1998; Turkle, 1995). However, it remains hard to judge whether we are witnessing a broad shift away from learning information to learning how to find information 'just-in-time', from formal to informal learning environments and from learning through rules ('by the book') to 'learning by doing' (Johnson-Eilola, 1998).

skills rather than to transform or generate new literacy skills for a supposedly 'new' information age.

While I have perhaps given more weight to the case for change than for that of continuity, my purpose being to explore what difference new forms of textuality and technology might make, it must be acknowledged that the arguments are as yet inconclusive on both sides. Particularly contested is the argument that those who advocate the view of changing literacies to accompany changing technologies themselves endorse technological determinism.²⁹ Their defence, however, would be that their view rests not on any simple causal claim regarding the impact of technology on society but rather on a complex account of the underlying shift from modernity to postmodernity, both technology and literacy being shaped by this grander transformation (Poster, 2001; Turkle, 1995). For example, comparing the literacy expectations of parents and children, Johnson-Eilola posits a generation gap in understandings of what constitutes a game, pointing out that 'where modernists are compelled to understand the rules before playing a game – or at best, must be able to discern simple, clear rules by trial and error – postmodernists are capable of working such chaotic environments from within, movement by movement' (1998: 195). It seems, therefore, that the question of whether literacy is changing rests in turn on yet bigger and still open questions over firstly the social nature and consequences of technological innovation and change and, even more hotly debated, whether the very nature of information, knowledge and representation is undergoing a historical transformation from the modern to (or at least towards) the postmodern.

Individual and institutional uses of literacy

The skills-based definition of literacy developed above centres on the abilities of the individual (whether reader, listener, viewer or computer-user) rather than the knowledge arrangements of a society or, especially, knowledge and competencies as managed by institutions (media, state, education, business). But, as Hartley argues, 'literacy is not and

29 According to technological determinism, 'new technologies are invented as if they were in an independent sphere, and then create new societies or new human conditions' (Williams, 1974: 13). The alternative view – advocating the social shaping of technology, stresses that 'the technological, instead of being a sphere separate from social life, is part of what makes society possible' (MacKenzie and Wajcman, 1999: 23). MacKenzie and Wajcman further distinguish between technological determinism as a theory of technology and as a theory of society. As the former, technological determinism fails: technological innovation is a thoroughly social process, from conception, design, production, marketing, diffusion, appropriation, use and consequences. But as a theory of society and social change, MacKenzie and Wajcman (1999: 3) argue that technological determinism contains 'a partial truth': provided it is understood that technologies are social products which embed human relations in their very constitution, we may as a matter of convenience cast them in the role of actors, along with other kinds of actor, when explaining social processes. Crucially, this is only a shorthand, for 'precisely because technological determinism is partly right as a theory of society (technology matters not just physically and biologically, but also to our human relations to each other), its deficiency as a theory of technology impoverishes the political life of our societies' (MacKenzie and Wajcman, 1999: 5).

never has been a personal attribute or ideologically inert “skill” simply to be “acquired” by individual persons... It is ideologically and politically charged – it can be used as a means of social control or regulation, but also as a progressive weapon in the struggle for emancipation’ (Hartley, 2002: 136). I shall conclude by considering the institutional interests at stake in promoting media literacy.

Literacy is not an end in itself, so what are its social and institutional uses? Notwithstanding the technological shifts in forms of literacy, as we move from oral culture, through the hegemony of print to a multimedia environment, all uses of the term literacy refer to a facility with the dominant and valued forms and contents of culture. In analysing the equally complex term, ‘culture’, Williams (1976: 90) identifies ‘three broad active categories of usage... (i) a general process of intellectual, spiritual and aesthetic development...; (ii) a particular way of life, whether of a people, a period, a group, or humanity in general ...; (iii) the works and practices of intellectual and especially artistic activity’. Each use of the term ‘culture’ asserts standards by which good and bad – and hence, also, cultured or literate and uncultured or illiterate - can be distinguished. Thus we can ask, is the purpose of literacy to promote intellectual, spiritual and aesthetic development (rendering the media illiterate person immature or ignorant)? Is it rather to encourage appreciation of diverse but valid – morally rooted - ways of life within society (with the media illiterate person narrow-minded and intolerant of difference)? Or is it to encourage appreciation of high culture (leaving the media illiterate person without cultural standards as a defence against the harms of mass entertainment)?

From a critical perspective, each of these purposes, especially the first and third, can be read as furthering the institutional reproduction of the standards and values of an established cultural and economic elite. In practice, this renders the ideals of self-actualisation, cultural expression and aesthetic creativity subordinate to the use of literacy to achieve the competitive cultural and economic advantages vital in a globalised, information society. Individual and societal uses of literacy and, further, cultural and economic uses of literacy, stand in a relation of some mutual tension which the academy at times, and policy makers more often, obscure. If we add to this tension the relation between literacy and citizenship – the argument that literacy is a key means, perhaps even a right, by which citizens participate in society and by which the state regulates the manner and purposes of citizens’ participation – we

begin to see why the uses of literacy are rather less clear or consensual than the definition of literacy.³⁰

A literate society is surely a society of knowledgeable, critical, engaged people who will demand channels for participating in and influencing cultural, political and social institutions – perhaps as part of a rational-critical public sphere, perhaps more conflictually. How can this be managed? And is it the case that ‘authority about what is most worthwhile culturally and the means to get it have slipped away from the traditional gate-keepers and cultural transmitters – schools, teachers, universities, books, libraries’ (Smith and Curtin, 1998: 225)?

At present in the UK, media literacy is of central concern to several government departments, necessarily so given the breadth of domains in which literacy matters. Yet as a result literacy becomes an issue vulnerable to any failures to ‘join up’ policy across departments. Hence, the Department of Trade and Industry is concerned to ensure both a technologically-sophisticated workforce and a demanding, responsive and flexible market of consumers; the Department of Education and Skills is charged with educating the population to the level of literacy or literacies deemed necessary by society; while it is the Department of Media, Culture and Sport which has the explicit remit of promoting media literacy. Add to this mix the Office of the E-envoy, hoping to use ICT improve citizenship participation and democracy (or, perhaps, to reduce the costs of information and service delivery), and the Home Office’s concern with illegal media contents and services – addressed in part through public safety and awareness campaigns (e.g. The Task Force on Child Protection, 2003) and the challenge of developing and implementing policy for a media-literate population will be apparent. The costs of failure, however, will be equally spread, resulting in a new form of social exclusion – the so-called digital divide – which will also have cross-departmental consequences.

One key strategy, however, is to devolve responsibility for accessing and using media from the state to individual members of the public.³¹ What was once – in the UK and other public service cultures - a matter of state regulation (restricting children’s access to ‘adult’ content, ensuring clear demarcation between advertising and programmes and regulating sponsorship, rules for impartiality in the news,

30 Interestingly, Hobbs (1998) seven great debates in media literacy fall more or less into debates over the uses of literacy and debates over the implementation of media literacy through the education system. Although the implementation of media policy is beyond the scope of this paper, policy to promote media literacy must include consideration of how this is to be evaluated – for example, in accordance with standard educational means of assessing print literacy or by analogy with the measurement of either the public understanding of science or the effectiveness of health promotion campaigns.

31 As DCMS puts it, in its Media Literacy Statement (2001), ‘A future system of regulation must take account of differences between media and have different sets of rules which can be adapted to different circumstances. This will involve a greater degree of self regulation on the part of viewers and parents’. And, later in the same document, ‘there will be an expectation that people will themselves take greater responsibility for their use of these media. That expectation will be a fair one only if people have the tools (both material and intellectual) with which to make those informed choices. That demands a greater degree of media literacy and critical viewing skills than is apparent at present’.

specification of the contents of the schedule) is increasingly a matter of media literacy (parents apply appropriate technical or social controls over their children, viewers must become media literate in understanding commercial underpinning of programming, viewers must become discerning in distinguishing objective news from biased news, viewers must become selective and informed so they know how to find the programming they want). While this is defended primarily in relation to new media (and the supposed difficulty, or undesirability, of regulating these by national governments), one might speculate that once the public has become literate in these senses – self-governing in its media use – regulation can also be lifted from more traditional, nationally-based, public service media.³²

In relation to new media, the same factors that make the media environment difficult to regulate nationally – as it becomes more complex, diversified, commercialised and globalised, including more potentially harmful contents – also make it difficult to regulate domestically, within the home. Such a strategy may be promoted as individual empowerment but clearly it enables the state to roll back its own responsibilities, even though many ordinary people, and especially parents, would prefer top-down media regulation in the public interest, rather than being ‘empowered’ with difficulty-to-implement technology to do it for themselves. And given the variability in success in implementing any education and awareness programme, one must ask about the regulatory safeguards for those who, for whatever reason, fail to achieve a certain standard of media literacy.

Towards an agenda for promoting media literacy

Definitions are not required simply for clarity in the face of confusion. How media literacy is defined has consequences for the framing of a debate, the research agenda and policy initiatives. This paper has argued that, in theoretical terms, literacy concerns the historically and culturally conditioned relationship among three processes: (i) the symbolic and material representation of knowledge, culture and values; (ii) the diffusion of interpretative skills and abilities across a (stratified) population; and (iii) the institutional, especially, the state management of the power that access to and skilled use of knowledge brings to those who are ‘literate’. As we have seen, this *relationship* among textuality, competence and power has long been contested - a centuries-old struggle between enlightenment and critical scholarship,

32 In Foucault's terms (1991), we are witnessing a shift from centralised government to individual governance: framed by the discourse of empowerment, media literacy policy holds out the promise of delivering ‘good’ (i.e. responsible, rational, selective, predictable) users in accordance with the interests of state and commerce.

setting those who see literacy as democratising, empowering of ordinary people against those who see it as elitist, divisive, a source of inequality.

However, there is a considerable gap between a historically and culturally sensitive theory of media literacy and a practical, working definition which policy makers might implement. To the extent that practice falls short of theory, problems with policy will persist: no discussion of media literacy can escape the legacy of long-standing debates regarding knowledge, culture, equality, participation and value. Today's anxieties over the digital divide represent the latest steps in a long-standing struggle over who will have the power to benefit from information and communication in a technologically-mediated twenty-first century – if computer literacy cannot be promoted in a fair and equal manner, then its impact on society will be positive for the privileged few at the expense of those who are left out. Particularly causing concern here is the prospect that, as with other forms of social distinction, a policy for overcoming the digital divide, however well-meaning, risks amplifying rather than alleviating divisions (Bourdieu, 1984; Norris, 2001; Rice, 2002; Rogers, 1995).

This paper began fairly pragmatically by identifying four components of media literacy: access, analysis, evaluation and content creation. Whether these are also sufficient for literacy is another question, and while most available definitions include one or more of these four components, others could – and probably should - be considered before academic definitions are translated into policy initiatives. For example, in mapping the requirements for cine-literacy, Bazalgette advocates teaching viewers a canonical knowledge of film (1999). By extension, one could teach literate internet users knowledge of 'classic' web sites, just as one judging the literacy of readers by their familiarity with Shakespeare or film goes by their appreciation of Hitchcock. Whether media literacy programmes will, in practice, promote a common understanding or increase diversity and segmentation of cultural choices is at present unclear, as is the judgement over which of these is preferable.³³

Taken together, the components of literacy discussed in this paper constitute a skills-based approach centred on the abilities of the individual reader/viewer/user. To be more or less literate, in these terms, means a more or less skilled individual. The promotion of media literacy invites an education and awareness initiative. By contrast with early views of the television audience (Butsch, 2000), this approach inscribes a

³³ Arguably, a canon promotes publicly a critically legitimated, commonly-shared cultural frame of reference. Proponents of public service and civic culture online (Coleman and Blumler, 2002; CME, 2000), like those who rate and promote excellent sites (c.f. Childnet-international, www.childnet-int.co.uk) are motivated to ensure that the public not only shares in the best the internet can offer but that the internet thereby becomes central to what is held in common rather than divisive of our culture. However, having supported this view in an earlier paper (Livingstone, 2001), it now seems to me that although the goal remains highly laudable in terms of content provision, it also tends to undermine the most potentially emancipatory feature of the internet, namely its anarchic, heterogeneous, diverse nature.

broadly positive vision of media users - intrinsically motivated, striving after meaning, ready to learn and explore and socially connected, albeit impeded by various material and symbolic barriers. Further, research has usefully sought to embed thoroughly this account of the individual skills and competencies implicated in access, analysis, evaluation and content creation within the social contexts of use – domestic, workplace, educational, etc. This can offer clues as to where, when and why any general principles of media literacy will apply variably, depending on the individual, the medium, the domestic or educational context, the cultural setting and so forth.

One may be tempted to regard these four components of media literacy as a developmental sequence, ordered in terms of acquisition and complexity: access precedes and is simpler than analysis; analysis precedes evaluation; evaluation must surely precede and guide the creation of new content. But as curriculum designers know, this is too simple. Each component process supports advances in others: learning to create content helps one to analyse that produced professionally by others; skills in analysis and evaluation open the doors to new uses of the internet, expanding access,³⁴ and so forth. We must anticipate a non-linear, dynamic learning process across these components of media literacy.

In developing this skills-based approach to media literacy, I have sought to adapt what we know of print and audiovisual media literacy in order to identify how we might think about new forms of literacy in today's changing media environment. This has served to map out the research tasks and the issues for debate for research and policy communities alike.

Particularly, research is now needed to map what it is people are becoming literate in - the characteristics of the new media environment in terms of text, technology and cultural form for the representation of knowledge, the framing of entertainment and the conduct of communication. This must include a normative dimension – in relation to which aspects of the internet does one wish to promote media literacy and use, which are of lower priority, and for which should literacy help users avoid? In tandem with this mapping exercise, research is needed to investigate the actual skills and practices of new media users. What literacies are people developing, formally or informally, and how should these best be promoted, taught and evaluated?³⁵ A top-

³⁴ There is some scope for discussion in how to draw the line between access and analysis. Having watched children (and their parents) type url's into search boxes, fail to bookmark favourite sites, misspell keywords in searching, ignore pop-ups offering to update software, and so forth, it is clear that an inadequate analysis of the nature of the world wide web can impede access to information (Livingstone and Bovill, 2001).

³⁵ As present, research suggests that current levels of media literacy among the population are uneven (people are more or less skilled in different areas), inconsistent (people may apply their critical interpretative skills variably) and differential (some are more skilled than others). Add to this the tendency to over-claim (by individuals and, on occasion, the academy) how 'media savvy' people are, and it will be evident that attempts to measure levels of media literacy will be fraught (Livingstone and Thumim, 2003).

down definition of media literacy, developed from print and audiovisual media, while a useful guide for research and policy, should not pre-empt learning from users themselves.³⁶

Interestingly, it seems that the arguments for access and analysis are less contentious (though no easier to implement) than are those for evaluation and content creation. Two as-yet-unresolved debates concern these aspects of media literacy. It is thus a priority to debate the role of critical literacy and critical evaluation in relation to shifting notions of quality, authority and standards. This must include specifying and legitimating appropriate bases of criticism – aesthetic, political, ideological and/or economic – and their relation to the values of those providing ICT resources and teaching literacy. Secondly, the importance of content creation to media literacy requires a stronger defence, for it is too easily dropped from less ambitious definitions of media literacy. Anchoring content creation within media literacy may in turn require further research to establish the relation between the reception and production of content in the new media environment, including clarification of the benefits – to learning, cultural expression and civic participation – and consideration of the best means of delivering these benefits.

These debates – over evaluation or critical literacy and over content creation - are surely the most crucial to the democratic agenda behind literacy. Without them, people are positioned merely as selective receivers – consumers, in other words; it is critical literacy and content creation which carry the main potential to reposition the media user - from passive to active, from recipient to participant, from consumer to citizen. Assuming support for the democratic (rather than defensive) justification for media literacy,³⁷ the paper lastly addressed two further difficult questions, both of which are central to the (re)positioning of media users as citizens rather than – or, at a minimum, as well as – consumers. The first argued that literacy cannot be defined independently of a medium and, so it changes – and becomes plural - as the media or technologies change. As suggested earlier, the rebuttal to this argument is as much in need of development and empirical support as the claim itself. The second difficult question facing proponents of media literacy that was addressed above

36 Such empirical work will produce its own surprises, as it did with television. Following decades of audience research, the early vision of the passive, vulnerable, manipulated audience was replaced by one stressing active engagement with television content, located within a strongly-defining social context, and with far more subtle and indirect notions of media effect (Livingstone, 1998).

37 This is not to say that some defensive – or self-protective – skills should not be taught as part of media literacy education. On the contrary, it is essential that users – especially but not only children – should know how to avoid unwelcome or inappropriate online content and contact, and ensuring this must be a central plank of any policy to raise levels of media literacy among the population (Livingstone, 2001; Slevin, 2000; Task Force on Child Protection, 2003). However, this concern represents a valid but distinct component of a much larger agenda, and this larger agenda, I suggest, should be driven by a positive and democratic impetus to ensure that opportunities for knowledge, culture and participation are as widely taken up as possible.

concerned the focus on the individual, raising questions of policy regarding the social and institutional uses of literacy, and it is on this that I shall end.

This issue is, for those of us in the UK debating the current Communications Bill, pertinently illustrated by the policy question, what does 'promoting media literacy' mean?³⁸ When hopes are expressed that media literacy will increase 'discernment' among media users, does this refer to a Leavisite fear of media harms, or to a policy for the future of public service (i.e. as chosen by discerning viewers rather than guaranteed by the state) (Jowell, 2003)? Is it, more narrowly, a matter of lubricating the media market by ensuring that consumers are sufficiently aware of the different products? Or does it reflect a recognition that media now carry the key information and culture of our society, making media literacy essential for citizenship? In other words, does empowering the viewers and users of today's diverse media mean anything beyond becoming a more selective consumer? If so, what? If not, why not?

References

- Aufderheide, P. (Ed.) (1993). *Media Literacy: A report of the national leadership conference on media literacy*. Aspen, CO.: Aspen Institute.
- Bazalgette, C. (1999). *Making Movies Matter*. London: British Film Institute.
www.bfi.org.uk
- Bourdieu, P. (1984). *Distinction: A social critique of the judgement of tastes*. Cambridge, MA.: Harvard University Press.
- Buckingham, D. (1998). Media education in the UK: Moving beyond protectionism. *Journal of Communication*, 48(1): 33-42.
- Buckingham, D. (2000). *After the Death of Childhood: Growing Up in the Age of Electronic Media*. Cambridge: Polity Press.
- Burbules, N. C. (1998). Rhetorics of the Web: Hyperreading and critical literacy. In I. Snyder (Ed.), *Page to Screen: Taking Literacy into the Electronic Era* (pp. 102-122). New York: Routledge.
- Butsch, R. (2000). *The Making of American Audiences: From stage to television, 1750-1990*. Cambridge: Cambridge University Press.
- Castells, M. (2002). *The Internet Galaxy: Reflections on the internet, business, and society*. Oxford: Oxford University Press.
- Christ, W. G., and Potter, W. J. (1998). Media literacy, media education, and the academy. *Journal of Communication*, 48(1): 5-15.

³⁸ Consider the UK's Department for Culture, Media and Sport (2001) rationale for its welcome endorsement of critical viewing skills: the purpose of thinking critically about media, it argues, is so as 'to take greater responsibility for viewing choices and the use of electronic media', in order to achieve 'the most beneficial ends for both individual and society' (section 3.1). One wonders, if viewers take more responsibility, who or what is thereby relieved of responsibility? What is the basis for critical viewing – aesthetic or political, normative or radical? Does the story end with the matter of individual choices and uses, or should a critical response to the media generate a public or collective form of critical engagement? What if ends beneficial to the individual conflict with those of society?

- Center for Media Education (CME). (2000). Citizen Youth: CME Looks Beyond Election Day. *eCME News*, 1(2). www.cme.org
- Coleman, S., and Blumler, J.G (2002). *A Civic Commons Online*. Research report no. 2). London: IPPR / Citizens Online Research Publication.
- Coltheart, M. (1987). *Attention and Performance XII: The psychology of reading*. London: Lawrence Erlbaum Associates.
- Department for Culture, Media and Sport (DCMS). (2001). *A General Statement of Policy by the Department for Culture, Media and Sport on Media Literacy and Critical Viewing Skills*: London: Dept for Culture, Media and Sport.
- Eco, U. (1979). *The Role of the Reader: Explorations in the semiotics of texts*. Bloomington: Indiana University Press.
- Facer, K., Sutherland, R., Furlong, R., and Furlong, J. (2001). What's the Point of Using Computers? The Development of Young People's Computer Expertise in The Home. *New Media and Society*, 3(2), 199-219.
- Fiske, J., and Hartley, J. (1978). *Reading Television*. London: Methuen.
- Fornas, J., Klein, K., Ladendorf, M., Sunden, J., and Sveningsson, M. (2002). *Digital Borderlands: Cultural studies of identity and interactivity on the internet*. NY: Peter Lang.
- Foucault, M. (1991). Governmentality. In G. Burchill, C. Gordon, and P. Miller (Eds.), *The Foucault Effect: Studies in governmentality* (pp.87-104). Chicago: University of Chicago Press.
- Freire, P. and Macedo, D. (1987). *Literacy: reading the word and the world*. South Hadley, MA.: Bergin and Garvey.
- Gurak, L. J. (2001). *Cyberliteracy: Navigating the internet with awareness*. New Haven: Yale University Press.
- Hall, S. (1980). Encoding/Decoding. In S. Hall, D. Hobson, A. Lowe, & P. Willis (Eds.), *Culture, Media, Language*. London: Hutchinson.
- Hartley, J. (2002). *Communication, Cultural and Media Studies: The key concepts*. London: Routledge.
- Hirsch, E. D. (1987). *Cultural Literacy: What every American needs to know*. Boston: Houghton Mifflin.
- Hobbs, R. (1998). The seven great debates in the media literacy movement. *Journal of Communication*, 48(1): 6-32.
- Hodge, R., & Tripp, D. (1986). *Children and Television: A Semiotic Approach*. Cambridge: Polity.
- Hoggart, R. (1957). *The Uses of Literacy*. London: Chatto and Windus.
- Isaacs and Walendowski (2002) *Designing From Both Sides of the Screen: How designers and engineers can collaborate to build co-operative technology*. Indiana: New Riders.
- Iser, W. (1980). Interaction between text and reader. In S. R. Suleiman & I. Crosman (Eds.), *The Reader in the Text: Essays on audience and interpretation*. Princeton: Princeton University Press.

- Jankowski, N. (2002). Creating community with media: History, theories and scientific investigations. In L. Lievrouw & S. Livingstone (Eds.), *The Handbook of New Media*. London: Sage. Pp. 34-49.
- Jenkins, H. (1992). *Textual Poachers: Television fans and participatory culture*. Cambridge: Cambridge University Press.
- Johnson-Eilola, J. (1998). Living on the Surface: Learning in the Age of Global Communication Networks. In I. Snyder (Ed.), *Page to Screen: Taking Literacy into the Electronic Era* (pp. 185-210). New York: Routledge.
- Jowell, T. (2003). Keynote lecture to the *Oxford Media Convention: Public Service Communications*. IPPR/Media Guardian/PCMLP, Oxford University, 15 January 2003.
- Katz, E., Peters, J. D., Liebes, T., and Orloff, A. (2003) (Eds.). Editors' Introduction. *Canonic Texts in Media Research*. Cambridge: Polity. Pp. 1-8.
- Kellner, D. (2002). New Media and New Literacies: Reconstructing Education for the New Millenium. In L. Lievrouw & S. Livingstone (Eds.), *The Handbook of New Media*. London: Sage. Pp. 90-104.
- Kintgen, E. R., Kroll, B. M., and Rose, M. (1988) (Eds.) *Perspectives on Literacy*. Carbondale, Ill: Southern Illinois University Press.
- Kress, G. (1998). Visual and verbal models of representation in electronically mediated communication: the potentials of new forms of text. In I. Snyder (Ed.), *Page to Screen: Taking literacy into the electronic era* (pp. 53-79). London and New York: Routledge.
- Kubey, R. (Ed.). (1997) (Ed.). *Media Literacy in the Information Age*. NJ, New Brunswick: Transaction Publishers.
- LaFrance, J. P. (1996). Games and players in the electronic age: Tools for analysing the use of video games by adults and children. *Reseaux*, 4(2): 301-322.
- Lazarsfeld, P. F. (1941). Remarks on administrative and critical communications research. *Studies in Philosophy and Science*, 9, 3-16.
- Liebes, T., & Katz, E. (1995). *The Export of Meaning: Cross-Cultural Readings of DALLAS*. Cambridge: Polity Press.
- Lievrouw, L., and Livingstone, S. (2002). The social shaping and consequences of ICTs. In L. L. Lievrouw, S (Ed.), *Handbook of New Media: Social Shaping and Consequences of ICTs*. London: Sage. Pp. 1-15.
- Livingstone, S. (1998). *Making Sense of Television: The Psychology of Audience Interpretation*. (2nd ed.). London: Routledge.
- Livingstone, S. (2001). *Online Freedom & Safety for Children* (Research report no. 3). London: IPPR / Citizens Online Research Publication.
- Livingstone, S. (2002). *Young People and New Media*. London: Sage.
- Livingstone, S., and Bovill, M. (2001). *Families and the Internet*. A report to BT. London: LSE.
www.lse.ac.uk/collections/media@lse/whoswho/SoniaLivingstone.htm
- Livingstone, S., and Thumim, N. (2003). *Assessing the media literacy of UK adults: A review of the academic literature*. Report commissioned by the Broadcasting Standards Commission/ Independent Television Commission/National Institute of Adult and Continuing Education. March, 2003.

- Loveless, A., & Ellis, V. (Eds.) (2001). *ICT, Pedagogy and the Curriculum: Subject to Change*. London: Routledge.
- Luke, C. (1989). *Pedagogy, Printing, and Protestantism: The discourse on childhood*. NY: State University of New York Press.
- MacKenzie, D., & Wajcman, J. (Eds.). (1999). *The Social Shaping of Technology* (2nd ed.). Buckingham: Open University Press.
- Masterman, L. (1985). *Teaching the Media*. London: Comedia.
- McMillan, S. (2002). Exploring Models of Interactivity from Multiple Research Traditions: Users, Documents, and Systems. In L. Lievrouw & S. Livingstone (Eds.), *The Handbook of New Media* (pp. 164-175). London: Sage Publications. Pp. 163-182.
- Newhagen, J. E., and Rafaeli, S. (1996). Why communication researchers should study the internet: a dialogue. *Journal of Communication*, 46(1): 4-13.
- Norris, P. (2001). *Digital Divide: Civic engagement, information poverty, and the internet worldwide*. Cambridge: Cambridge University Press.
- Poster, M. (2001). *What's the Matter with the Internet?* Minneapolis: University of Minnesota.
- Quinn, V. (1997). *Critical Thinking in Young Minds*. London: David Fulton.
- Radway, J. (1984). *Reading the Romance: Women, patriarchy and popular literature*. Chapel Hill: University of North Carolina Press.
- Ribak, R. (2001). 'Like Immigrants': Negotiating Power in the Face of the Home Computer. *New Media and Society*, 3(2), 220-238.
- Rice, R. (2002). Primary Issues in Internet use: Access, Civic and Community Involvement, and Social Interaction and Expression. In L. L. Lievrouw, S (Ed.), *Handbook of New Media: Social Shaping and Consequences of ICTs*. London: Sage. Pp. 105-129.
- Rogers, E.M. (1995). *Diffusion of Innovations* (4th ed.). New York: Free Press.
- Sefton-Green, J. (Ed.). (1999). *Young People, Creativity and New Technologies: The challenge of digital arts*. London: Routledge.
- Silverstone, R. (1994). *Television and Everyday Life*. London: Routledge.
- Singer, D. G., and Singer, J. L. (Eds.) (2001). *Handbook of Children and the Media*. Thousand Oaks, Cal.: Sage.
- Slevin, J. (2000). *The Internet and Society*. Cambridge: Polity.
- Smith, R., & Curtin, P. (1998). Children, Computers and Life Online: Education in a Cyber-world. In I. Snyder (Ed.), *Page to Screen: Taking literacy into the electronic era* (pp. 211-233). London: Routledge.
- Snyder, I. (1998). Beyond the hype: reassessing hypertext. In I. Snyder (Ed.), *Page to Screen: Taking literacy into the electronic era* (pp. 125-143). London and New York: Routledge.
- Street, B. (1995). *Social Literacies: Critical approaches to literacy in development, ethnography and education*. London: Longman.

- Task Force on Child Protection (2003). *Keeping Your Child Safe on the Internet*. London: Home Office. <http://www.wiseuptothenet.co.uk> (checked 06/02/03).
- Turkle, S. (1995). *Life on the Screen: Identity in the Age of the Internet*. New York: Simon & Schuster.
- Tyner, K. (1998). *Literacy in a Digital World*. Mahwah NJ: Lawrence Erlbaum Associates.
- Warnick, B. (2002). *Critical Literacy in a Digital Era: Technology, rhetoric, and the public interest*. Mahway, New Jersey: Lawrence Erlbaum Associates.
- Williams, R. (1974). *Television, Technology and Cultural Form*. London: Fontana.
- Williams, R. (1976). *Keywords: A vocabulary of culture and society*. London: Fontana.
- Vincent, D. (1989). *Literacy and Popular Culture: England 1750-1914*. Cambridge: Cambridge University Press.

Electronic Working Papers

Media@Ise EWPs will:

- present high quality research and writing (including research in progress) to a wide audience of academics, policy makers and commercial/media organisations
- set the agenda in the broad field of media studies, and
- stimulate and inform debate and policy.

All papers will be peer reviewed and will be given an ISSN. Electronic publication will be supplemented by a small print-run of hard copies. A particular advantage of the series will be the quick turnaround between submission and publication. Authors will retain copyright, and publication here does not preclude the subsequent development of the paper for publication elsewhere.

Contributors are encouraged to submit papers that address the social, political, economic and cultural context of media forms, institutions, audiences and experiences, as well as their global, national, regional and local manifestation.

The editors of the series are **Rosalind Gill** (r.c.gill@lse.ac.uk), **Andy Pratt** (a.c.pratt@lse.ac.uk), **Nick Couldry** (n.couldry@lse.ac.uk) and **Terhi Rantanen** (t.rantanen@lse.ac.uk), all based on Media@Ise, and the editorial board is made up of other LSE academics with a wide range of interests in information and communication technologies from a variety of disciplinary perspectives (including law, sociology, social psychology, information systems, politics and cultural studies).

Notes for contributors:

Contributions are welcomed from academics and research students. Contributors should bear in mind when they are preparing their paper that it will be read on line.

Papers should conform to the following format:

- 4,000 – 10,000 words length
- 150 – 200 word abstract
- footnotes are discouraged
- headings and sub-headings are encouraged
- the Harvard system of referencing should be used.

Papers should be prepared as a PC-compatible Microsoft Word document. Graphs, pictures and tables should be saved as separate files.

4 hard copies and one digital copy (on a PC format disk) of the paper should be sent to:

Andy C Pratt

Media@Ise
Houghton Street
London WC2A 2AE
a.c.pratt@lse.ac.uk

Editorial Board Members:

Anne Barron

Stephen Coleman

Nick Couldry

Rosalind Gill

Clare Hemmings

Peter Lewis

Jonathan Liebenau

Sonia Livingstone

Andy Pratt

Terhi Rantanen

Roger Silverstone

Leslie Sklair

Don Slater

Edgar Whitley

ISSN: 1474-1946