Literacy in the new media age
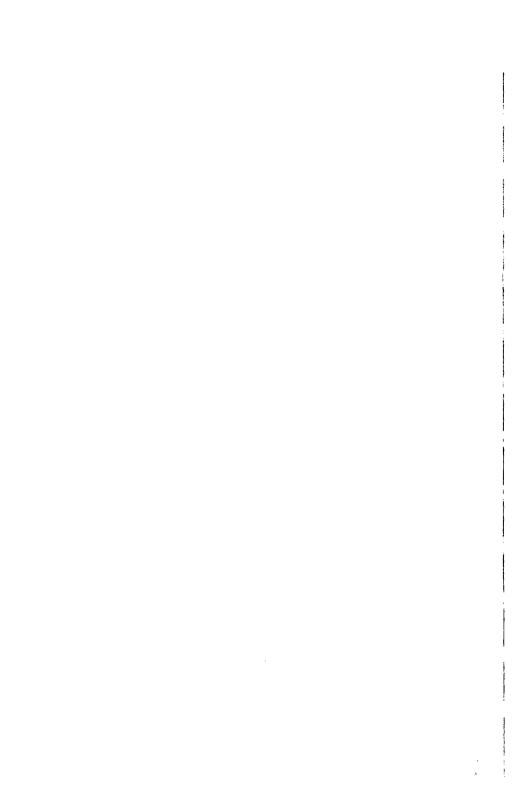
Gunther Kress.

LITERACY IN THE NEW MEDIA AGE

'In his new book, Gunther Kress shows us that as reading and writing move from page to screen, literacy is not just as a matter of language but a matter of motivated multimedia design.'

Jay L. Lemke, City University of New York

In this 'new media age' the screen has replaced the book as the dominant medium of communication. At the same time image is displacing writing and moving into the centre of communication.

In this ground-breaking new book, Gunther Kress considers the effects of a revolution that has radically altered the hitherto normal relation between the mode of writing and the medium of the book and the page, taking into account social, economic, communicational and technological factors, Kress provides a framework of principles for understanding these changes and their effects on the future of literacy.

Kress considers the likely larger-level social and cultural effects of that future, arguing that the effects of the move to the screen as the dominant medium of communication will produce far-reaching shifts in relations of power and not just in the sphere of communication. The democratic potentials and effects of the new information and communication technologies will, Kress contends, have the widest imaginable political, economic, social, cultural, conceptual/cognitive and epistemological consequences.

Literacy in the New Media Age is essential reading for anyone with an interest in literacy and its wider political and cultural implications.

Gunther Kress is Professor of English Education at the Institute of Education, University of London, UK. His publications include *Before Writing: Rethinking the Paths to Literacy* (Routledge, 1996), *Reading Images: A Grammar of Visual Design* (Routledge, 1996), and *Learning to Write*, 2nd edition (Routledge, 1994).

LITERACIES
Series Editor: David Barton
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Literacy practices are changing rapidly in contemporary society in response to broad social, economic and technological changes: in education, the workplace, the media and in everyday life. The *Literacies* series has been developed to reflect the burgeoning research and scholarship in the field of literacy studies and its increasingly interdisciplinary nature. The series aims to situate reading and writing within its broader institutional contexts where literacy is considered as a social practice. Work in this field has been developed and drawn together to provide books which are accessible, interdisciplinary and international in scope, covering a wide range of social and institutional contexts.

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FOR MICHAEL

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THE FUTURES OF LITERACY

Modes, logics and affordances

It is no longer possible to think about literacy in isolation from a vast array of social, technological and economic factors. Two distinct yet related factors deserve to be particularly highlighted. These are, on the one hand, the broad move from the now centuries-long dominance of writing to the new dominance of the image and, on the other hand, the move from the dominance of the medium of the book to the dominance of the medium of the screen. These two together are producing a revolution in the uses and effects of literacy and of associated means for representing and communicating at every level and in every domain. Together they raise two questions: what is the likely future of literacy, and what are the likely larger-level social and cultural effects of that change?

One might say the following with some confidence. Language-as-speech will remain the major mode of communication; language-as-writing will increasingly be displaced by image in many domains of public communication, though writing will remain the preferred mode of the political and cultural elites. The combined effects on writing of the dominance of the mode of image and of the medium of the screen will produce deep changes in the forms and functions of writing. This in turn will have profound effects on human, cognitive/affective, cultural and bodily engagement with the world, and on the forms and shapes of knowledge. *The world told* is a different world to *the world shown*. The effects of the move to the screen as the major medium of communication will produce far-reaching shifts in relations of power, and not just in the sphere of communication. Where significant changes to distribution of power threaten, there will be fierce resistance by those who presently hold power, so that predictions about the democratic potentials and effects of the new information and communication technologies have to be seen in the light of inevitable struggles over power yet to come. It is already clear that the effects of the two changes taken together will have the widest imaginable political, economic, social, cultural, conceptual/cognitive and epistemological consequences.

The two modes of writing and of image are each governed by distinct logics, and have distinctly different affordances. The organisation of writing – still leaning on the logics of speech – is governed by the logic of time, and by the

logic of sequence of its elements in time, in temporally governed arrangements. The organisation of the image, by contrast, is governed by the logic of space, and by the logic of simultaneity of its visual/depicted elements in spatially organised arrangements. To say this simply: in speaking I have to say one thing after another, one sound after another, one word after another, one clause after another, so that inevitably one thing is first, and another thing is second, and one thing will have to be last. Meaning can then be – and is – attached to 'being first' and to 'being last', and maybe to being third and so on. If I say 'Bill and Mary married' it means something different to 'Mary and Bill married' – the meaning difference perhaps referring to which of the two is closer to me. In a visual representation the placement of elements in the space of representation – the page, the canvas, the screen, the wall – will similarly have meaning. Placing something centrally means that other things will be marginal, at least relatively speaking. Placing something at the top of the space means that something else will likely be below. Both these places can be used to make meaning: being *central* can mean being the 'centre', in whatever way; being *above* can mean being 'superior', and being below can mean 'inferior'.

The point is that whether I want to or not I have to use the possibilities given to me by a mode of representation to make my meaning. Whatever is represented in speech (or to some lesser extent in writing) inevitably has to bow to the logic of time and of sequence in time. The world represented in speech or in writing is therefore (re)cast in an actual or quasi-temporal manner. The genre of the *narrative* is the culturally most potent formal expression of this. Human engagement with the world through speech or writing cannot escape that logic; it orders and shapes that human engagement with the world. Whatever is represented in image has to bow, equally, to the logic of space, and to the simultaneity of elements in spatial arrangements. The world represented in image is therefore (re)cast in an actual or quasi-spatial manner. Whatever relations are to be represented about the world have inevitably to be presented as spatial relations between the depicted elements of an image. Human engagement with the world through image cannot escape that logic; it orders and shapes how we represent the world, which in turn shapes how we see and interact with the world. The genre of the *display* is the culturally most potent formal expression of this. 'The world narrated' is a different world to 'the world depicted and displayed'.

To get closer to the core of that difference we need to ask more specifically about the affordances of each of the two modes. Is the world represented through words in sequence – to simplify massively – really different to the world represented through depictions of elements related in spatial configurations? Let me start with a very simple fact about languages such as English (not all languages of the world are like English in this respect, though many are). In English if I want to say or write a clause or a sentence about anything, I have to use a verb. Verbs are, by and large, words that represent actions, even if the actions are pseudo-actions, such as *seem, resemble, have, weigh* and so on. There is

one verb which is not really about action, the verb *be*, which names relations between entities – 'John is my uncle', or states of affairs – 'the day is hot'. But whichever I choose, and normally it is an actional verb, I cannot get around the fact that I have to name the relation, and refer to either a state or an action, even if I do not want to do so at all. 'I have a holiday coming up' is not really about ownership stated by *have*; nor is 'I think that's fine' really about what I think – it is saying that I feel fine in relation to whatever 'that' is. Yet both speech and writing absolutely insist that I choose a name/word for an action, even though I do not wish to do so.

To take another example, if I am in a science lesson and I am talking about cells, and the structure of cells, I might want to say 'every cell has a nucleus'. As in my example above, I have to use a word to name a relation between two entities – cell and nucleus – which invokes a relation of possession, *have*. I actually do not think of it as being about possession, but it is a *commitment* which language forces me to make. If I ask the class to draw a cell, there is no such commitment. Now, however, every student who draws the cell, has to place the nucleus somewhere in the cell, in a particular spot. There is no way around that, whether the nucleus actually has this or that specific place in the cell or not. There is a demand for an epistemological commitment, but it is a totally different one in the case of the two modes: commitment to naming of a relation in one case – 'the cell owns a nucleus', and commitment to a location in space in another – 'this is where it goes'.

Let me make another comparison of affordances, to draw out the impact of the shift. In writing, I can use 'every cell has a nucleus' without having any idea what a nucleus actually is, does, looks like and so on. The same applies to *cell*; nor do I know what *have* actually means in that structure – other than a kind of 'there is'. The reason for that is that words are, relatively speaking, empty of meaning, or perhaps better, the word as sound-shape or as letter-shape gives no indication of its meaning, it is there to be filled with meaning. It is that 'filling with meaning' which constitutes the work of imagination that we do with language. In what may seem a paradox given common-sense views about language, I want to say that words are empty of meaning, relatively. If someone says to me 'I have a new car', I know very little indeed about that person's vehicle. It is this characteristic of words which leads to the well-known experience of having read a novel and really enjoyed it – filling it with our meaning – only to be utterly disappointed or worse when we see it as a film, where some others have filled the words with their very different meanings.

At the same time, these relatively empty things occur in a strict ordering, which forces me to follow, in reading, precisely the order in which they appear. There is a 'reading path' set by the order of the words which I must follow. In a written text there is a path which I cannot go against if I wish to make sense of the meaning of that text. The order of words in a clause compels me to follow, and it is meaningful. 'Bill and Mary married' has a point of view coded in the reading path which makes it different from 'Mary and Bill married'. If I have

two clauses – 'The sun rose, the mists dissolved' – then the order in which I have put them structures the path that my reader must follow. 'The mists dissolved and the sun rose' has a quite different meaning, a near mystical force compared to the mundane 'the sun rose and the mists dissolved'. But the affordance which is at issue here is that of temporal sequence, and its effects are to orient us towards causality, whether in a simple clause ('the sun dissolved the mists'), where an agent acts and causes an effect, or in the conjoined clauses just above. The simple yet profound fact of sequence in time orients us towards a world of causality.

Reading paths may exist in images, either because the maker of the image structured that into the image – and it is read as it is or it is transformed by the reader, or they may exist because they are constructed by the reader without prior construction by the maker of the image. The means for doing this rest, as with writing, with the affordances of the mode. The logic of space and of spatial display provides the means; making an element central and other elements marginal will encourage the reader to move from the centre to the margin. Making some elements salient through some means – size, colour, shape, for instance – and others less salient again encourages a reading path. However, I say 'encourages' rather than 'compels' as I did with writing. Reading the elements of an image 'out of order' is easy or at least possible; it is truly difficult in writing.

However, while the reading path in the image is (relatively) open, the image itself and its elements are filled with meaning. There is no vagueness, no emptiness here. That which is meant to be represented is represented. Images are plain full with meaning, whereas words wait to be filled. Reading paths in writing (as in speech) are set with very little or no leeway; in the image they are open. That is the contrast in affordance of the two modes: in writing, relatively vacuous elements in strict order (in speech also, to a somewhat lesser extent); and full elements in a (relatively) open order in image. The imaginative work in writing focuses on filling words with meaning – and then reading the filled elements together, in the given syntactic structure. In image, imagination focuses on creating the order of the arrangement of elements which are already filled with meaning.

This is one answer to the cultural pessimists: focus on what each mode makes available, and use that as the starting point for a debate. There is then the further question of whether in the move from the dominance of one mode to the other there are losses – actually and potentially – which we would wish to avoid. On the one hand, the work of imagination called forth by writing – even in the limited way I have discussed it here (and the kinds of imaginative work and the potential epistemological losses I have suggested – the loss of an underlying orientation towards cause as one instance) may make us try to preserve features of writing which might otherwise disappear. On the other hand, I may actually not want to live in a semiotic/cultural world where everything is constructed in causal ways, whether I want it or no t– as just one example. I will

return to the question both of affordances and of gains and losses in other places in the book.

Affordances of mode and facilities of media

The shift in mode would, even by itself, produce the changes that I have mentioned. The change in media, largely from book and page to screen, the change from the traditional print-based media to the new information and communication technologies, will intensify these effects. However, the new media have three further effects. They make it easy to use a multiplicity of modes, and in particular the mode of image – still or moving – as well as other modes, such as music and sound effect for instance. They change, through their affordances, the potentials for representational and communicational action by their users; this is the notion of 'interactivity' which figures so prominently in discussions of the new media. Interactivity has at least two aspects: one is broadly interpersonal, for instance, in that the user can 'write back' to the producer of a text with no difficulty – a potential achievable only with very great effort or not at all with the older media, and it permits the user to enter into an entirely new relation with all other texts – the notion of hypertextuality. The one has an effect on social power directly, the other has an effect on semiotic power, and through that on social power less immediately.

The technology of the new information and communication media rests among other factors on the use of a single code for the representation of all information, irrespective of its initial modal realisation. Music is analysed into this digital code just as much as image is, or graphic word, or other modes. That offers the potential to realise meaning in any mode. This is usually talked about as the multimedia aspect of this technology, because with the older media there existed a near automatic association and identification of mode (say, writing) with medium (say, book).

With print-based technology – technologically oriented and aligned with word – the production of written text was made easy, whereas the production of image was difficult; the difficulty expresses itself still in monetary cost. Hence image was (relatively) rare, and printed word was ubiquitous in the book and on the page. With the new media there is little or no cost to the user in choosing a path of realisation towards image rather than towards word. Given that the communicational world around us is moving to a preference for image in many domains, the new technology facilitates, supports and intensifies that preference. What is true of word and image is also increasingly true of other modes. The ease in the use of different modes, a significant aspect of the affordances of the new technologies of information and communication, makes the use of a multiplicity of modes usual and unremarkable. That mode which is judged best by the designer of the message for specific aspects of the message and for a particular audience can be chosen with no difference in 'cost'. Multimodality is made easy, usual, 'natural' by these technologies. And such naturalised uses of modes

will lead to greater specialisation of modes: affordances of modes will become aligned with representational and communicative need.

The new technologies allow me to 'write back'. In the era of the book, which partly overlapped with the era of mass communication, the flow of communication was largely in one direction. The new technologies have changed unidirectionality into bidirectionality. E-mail provides a simple example: not only can I write back, but the moment I hit the reply or forward button, I can change the text that I have just received in many ways. If an attachment has come with the e-mail I can in any case rewrite it and send it anywhere I wish. In that process the power of the author, which has been such a concern in the era of the dominance of the old technologies and of the mode of writing, is lessened and diffused. Authorship is no longer rare. Of course the change to the power of the author brings with it a consequent lessening in the author's or the text's authority. The processes of selection which accompanied the bestowal of the role of author brought authority. When that selection is no longer there, authority is lost as well. The promise of greater democracy is accompanied by a levelling of power; that which may have been desired by many may turn out to be worth less than it seemed when it was unavailable.

Ready access to all texts constitutes another challenge to the former power of texts. There was a certain fictionality in any case to the notion of the author as the source of the text. Just as no one in a speech community has 'their own words' — the frequent request in schools for putting something in 'your own words' notwithstanding — so no one really ever originated their own texts. The metaphor of text-as-texture was in that respect always accurate: our experience of language cannot be, is never, other than the experience of texts. Our use of language in the making of texts cannot be other than the quotation of fragments of texts, previously encountered, in the making of new texts. The ease with which texts can be brought into conjunction, and elements of texts reconstituted as new texts, changes the notion of authorship. If it was a myth to see the author as originator, it is now a myth that cannot any longer be sustained in this new environment. Writing is becoming 'assembling according to designs' in ways which are overt, and much more far-reaching, than they were previously. The notion of writing as 'productive' or 'creative' is also changing. Fitness for present purpose is replacing previous conceptions, such as text as the projection of a world, the creation of a fictional world, a world of the imagination.

The dominance of the screen as the currently most potent medium — even if at the moment that potency may still be more mythical than real — means that it is these practices and these conceptions which hold sway, and not only on the screen but also in all domains of communication. The affordances and the organisations of the screen are coming to (re)shape the organisation of the page. Contemporary pages are beginning to resemble, more and more, both the look and the deeper sense of contemporary screens. Writing on the page is not immune in any way from this move, even though the writing of the elite using the older media will be more resistant to the move than writing elsewhere. It is

possible to see writing once again moving back in the direction of visuality, whether as letter, or as 'graphic block' of writing, as an element of what are and will be fundamentally visual entities, organised and structured through the logics of the visual. It is possible to see writing becoming subordinated to the logic of the visual in many or all of its uses.

Right now, an objection

It may be as well to try and answer here and now three objections that will be made. One is that more books are published now than ever before; the second is, that there is more writing than ever before, including writing on the screen. The third, the most serious, takes the form of a question: what do we lose if many of the forms of writing that we know disappear?

To the first objection I say: the books that are published now are in very many cases books which are already influenced by the new logic of the screen, and in many cases they are not 'books' as that word would have been understood thirty or forty years ago. I am thinking here particularly of textbooks, which then were expositions of coherent 'bodies of knowledge' presented in the mode of writing. The move from chapter to chapter was a stately and orderly progression through the unfolding matter of the book. The contemporary textbook — since the late 1970s for lower years of secondary school and by now for all the years of secondary school — is often a collection of 'worksheets', organised around the issues of the curriculum, and put between more or less solid covers. This is still called a book. But there are no chapters, there is none of that sense of a reader engaging with and absorbing a coherent exposition of a body of knowledge, authoritatively presented. Instead there is a sense that the issue now is to involve students in action around topics, of learning by doing. Above all, the matter is presented through image more than through writing — and writing and image are given different representational and communicational functions.

These are still called 'book', though I think we need to be wary of being fooled by the seeming stability of the word. These are not books that can be 'read', for instance, in anything like that older sense of the word 'read'. These are books for working with, for acting on. So yes, there are more 'books' published now than ever before, but in many cases the 'books' of now are not the 'books' of then. And I am not just thinking of factual, information books but of books of all kinds.

And yes, there is more writing than ever before. Let me make two points. The first is, who is writing more? Who is filling the pages of websites with writing? Is it the young? Or is it those who grew up in the era when writing was clearly the dominant mode? The second point goes to the question of the future of writing. Image has coexisted with writing, as of course has speech. In the era of the dominance of writing, when the logic of writing organised the page, image appeared on the page subject to the logic of writing. In simple terms, it

fitted in how, where and when the logic of the written text and of the page suggested. In the era of the dominance of the screen, writing appears on the screen subject to the logic of the image. Writing fits in how, where and when the logic of the image-space suggests. The effects on writing, as is already 'visible' in any number of ways, tiny at times, larger at others, will be inescapable.

That leaves the third objection. It cannot be dealt with quickly. It requires a large project, much debate, and an uncommon generosity of view. On one level the issue is one of gains and losses; on another level it will require from us a different kind of reflection on what writing is, what forms of imagination it fosters. It asks questions of a profounder kind, about human potentials, wishes, desires – questions which go beyond immediate issues of utility for social or economic needs. I attempt some answers at different points in the book.

What do I hope to achieve with this book? There is a clear difference between this book and others dealing with the issues of literacy and new media. The current fascination with the dazzle of the new media is conspicuous here by its absence. I focus on just a few instances and descriptions of hypertextual arrangements, internet texts, or the structure of websites. I am as interested in understanding how the *sentence* developed in the social and technological environments of England in the seventeenth century, as I am in seeing what sentences are like now. The former like the latter – in showing principles of human meaning-making – can give us ways of thinking about the likely development of the sentence in the social and technological environments of our present and of the immediate future. In that sense the book is out of the present mould; in part it looks to the past as much as to the present to understand the future. It is a book about literacy now, everywhere, in all its sites of appearances, in the old and the new media – it is about literacy anywhere in this *new media age.*

So what can readers hope to get from the book? My sense is that what is needed above all is some stocktaking, some reflection, a drawing of breath, and the search for the beginnings of answers to questions such as: Where are we? What have we got here? What remains of the old? What is common about the making of representations and messages between then and now, and in the likely tomorrow? I think that what we need are new tools for thinking with, new frames in which to place things, in which to see the old and the new, and see them both newly. That is what I hope the book will offer its readers: a conceptual framework and tools for thinking about a field that is in a profound state of transition.

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PREFACE

This book is about alphabetic writing. It appears, however, at a moment in the long history of writing when four momentous changes are taking place simultaneously: social, economic, communicational and technological change. The combined effects of these are so profound that it is justifiable to speak of a revolution in the landscape of communication; this revolution is producing far-reaching effects in the uses, functions, forms and valuations of alphabetic writing. Social changes are unmaking the structures and frames which had given a relative stability to forms of writing over the last two hundred years or so. Economic changes are altering the uses and purposes of the technology of writing. Communicational change is altering the relations of the means by which we represent our meanings, bringing image into the centre of communication more insistently than it has been for several hundred years, and thereby challenging the dominance of writing. Lastly, technological change is altering the role and significance of the major media of dissemination. The screen is beginning to take the place of the book, and this is unmaking the hitherto 'natural' relation between the mode of writing and the medium of the book and the page.

After a long period of the dominance of the book as the central medium of communication, the screen has now taken that place. This is leading to more than a mere displacement of writing. It is leading to an inversion in semiotic power. The book and the page were the site of writing. The screen is the site of the image – it is the contemporary canvas. The book and the page were ordered by the logic of writing; the screen is ordered by the logic of image. A new constellation of communicational resources (from now on I shall speak of them as *semiotic resources,* that is, resources of and for making meaning) is taking shape. The former constellation of *medium of book* and *mode of writing* is giving way, and in many domains has already given way, to the new constellation of *medium of screen* and *mode of image.* The logic of image now dominates the sites and the conditions of appearance of all 'displayed' communication, that is, of all graphic communication that takes place via spatial display and through the sense of sight. That now includes writing, which is becoming display-oriented. When in the past image appeared on the page it did so subject to the logic of writing, the relation of image to writing which we still know as 'illustration'.

When writing now appears on the screen, it does so subject to the logic of the image.

The chain of this effect runs further. The screen and its logic more and more now provide the logic for the page also. As one element in the communicational landscape which is dominated by the logic of the organisation of the visual modes, writing is coming to experience the effects of visualisation once again. The effect is that alphabetic writing is undergoing changes in its uses and in its forms as significant as any that it has experienced in the three or four thousand years of its history. All this is taking place in a larger environment in which the social and political frames which up to now had supported writing as the dominant mode of representation – and the book as its natural and dominant medium – are weakening or have already disappeared.

This does not 'spell' the end of alphabetic writing. Writing is too useful and valuable a mode of representation and communication – never mind the enormous weight of cultural investment in this technology. But it is now impossible to discuss alphabetic writing with any seriousness without full recognition of this changed frame. My use of 'alphabetic' in front of 'writing' is one consequence of this shift. The pressing use of image is forcing a reassessment of what writing is, what it does and does not do, and what it can and cannot do; it forces an insistence on its very materiality – the physicality, the materiality of the *stuff* that is involved. This in turn forces us to attend to the sensory channels that are drawn in. Once we attend to this, it becomes clear that there is a deep difference in the potentials of image and writing, with the latter – as alphabetic writing – still retaining its strong relation to sound and its potentials, and the former with its use of light, space and vision and their potentials. In this context 'writing' becomes newly problematic. Writing which is tied still to sound via the alphabet is different to writing which is not linked to sound, as in those writing systems which use 'characters' and are oriented much more to representing concepts through conventionalised images, rather than through sounds transcribed imperfectly in letters.

All this has led me to adopt a somewhat unusual approach for this book on 'literacy'. I try to take account of four factors: the social – in the weakening or disappearance of relevant social 'framings'; the economic – in the changing communicational demands of the economies of knowledge and information; the communicational – in the new uses and arrangements of modes of representation; and the technological – in the shape of the facilities of the new media. Just to hint at examples, for the first I would point to changes in relations of (social) power which are changing levels of 'formality' in all aspects of writing. In relation to the second, there are above all the profound questions about the adequacy of writing to an information-based economy, and then the greater specialisations in the tasks of writing that flow from this. The third is demonstrated by the increasing use of image as a means of communication; while the fourth is best illustrated by the changing relations of the media of the page – the 'print-media', book, magazine, newspaper – and the screen.

We cannot now hope to understand written texts by looking at the resources of writing alone. They must be looked at in the context of the choice of modes made, the modes which appear with writing, and even the context of which modes were not chosen. In the context of a book on literacy (still) the mode that occurs most frequently with the mode of writing is the image, whether in the print-media, or on the screen. We need to be aware however, that on the screen writing may appear with the modes of music, of colour, of (moving) image, of speech, of soundtrack. All these bear meaning, and are part of one message. The mode of writing is one part of that message, and so writing is *partial* in relation to the message overall.

In all this, one of our major problems is not just change itself, but the fact that we are forced to confront this world of change with theories which were shaped to account for a world of stability. There is an urgent need for theoretical accounts that tell us how to understand communication in periods of instability.

That is the present reality. The processes which are at work have not yet run their course. Just as one example, in the area of technology, the prospect of relatively reliable speech-recognition is already on the horizon; it is one further factor which will have profound if not precisely predictable consequences. Writing will be moved more in the direction of becoming – once again – the transcription of speech, just at the very time when the screen is pushing writing in the direction of visuality. I have attempted to capture some of the more obvious and I hope also more significant features of this moment, and have tried to focus on change not nostalgically but realistically. Change is always with us, for the simple reason that humans act, and act with intent. They work, and work produces change. Change is not neutral, nor is it the same at all times in history: it is always change of a particular kind, moving in particular directions, favouring one group rather than another. The real difference between times of seeming stability and times such as this is that now, we – unless *we* are politicians – can neither pretend that there is stability nor demand it, other than as an ideological act.

Where possible I want to indicate what the relations between the wider social and economic environment and the forms and means of communication might be like. To communicate is to work in making meaning. To work is to change things. That is the reason I like the metaphor of the 'communicational landscape'. The 'scape' in 'landscape' is related to the English word 'shape', and it is also related to the German word 'schaffen' – meaning both 'to work' and 'to create'.

Any landscape, the communicational included, is the result of human work. 'Human' and therefore full of affect and desire; 'human' and therefore always social and cultural. To make meaning is to change the resources we have for making meaning, to change ourselves, and to change our cultures. Many of the issues that I focus on here have been much discussed already, in many ways they have become clichés already. Maybe by putting the clichés into this

framework I can show their significance anew. If there is change, there is also much that persists. There are, I am certain, stable truths about representation and communication as persistent human and social processes. I try to focus on that which is stable while insisting that the meanings and the potentials of that which persists are nevertheless constantly altered by human semiotic work in changing social and economic environments.

Some large questions are posed for considerations of literacy by all this. Such as, what are the potentials of image as a resource for making meaning? Can image do what writing does? Is it simply an alternative, perhaps a parallel mode? Can image do things that writing cannot do? Or what is it that writing can do that image cannot? If modes have distinct affordances then their potentials for representing are partial. When we think of the affordances of modes in communication, we can no longer think of writing, or indeed of 'language', either as grand abstractions or as sufficient to all demands of representation and communication. That is a revolutionary position. It forces us to think of (alphabetic) writing in a deeply challenging way. And so the really large question is, what is it that is distinctive about the resource of writing?

Always present is the issue of the media for the dissemination of meanings as messages. The *book* has now been superseded by the *screen* in the role of dominant medium of communication – using screen as a shorthand term for the new communication and information technologies. At one level, the screen is simply a surface, the site of the appearance of textual ensembles, the visible display of the actions and effects wrought with the technology. The actual power of the technologies lies in the fact that at one level all information is held in the one code of binary numbers, and from that code information can be re-presented in any mode, whether as music, colour, speech, writing or image. Hence the realisation of meaning in the mode of writing is now just one possibility among others: when meaning can as easily emerge in music as in writing, then the latter has lost its privileged position. Writing becomes equal to all other modes in a profound sense: the question then is the mundane and fundamental one about the 'potentials' of each mode in relation to specific tasks.

The vast social changes of the present, which move – in their different ways and at differing pace – in the direction of abolishing, ameliorating and remaking social hierarchies, are profoundly implicated in all this. The new technologies have a vast role, but they do not determine social change. The often remarked changes to the forms of writing in e-mail are a consequence of the unmaking of the social frames of power at least as much as of technology. To use speech-like forms in writing is a sign of 'informality', itself the sign of a lessening in social 'distance', a sign of the reduction in social power difference. It is a feature of the technology of e-mail that it puts people in each other's presence – not geographical but temporal co-presence. 'Presence', seen semiotically, is just that: not absence, and not distance. It is the social meaning of 'not distant' which gives rise to 'informality', just as 'being distant', semiotically, gives rise to formality. It is an affordance of the technology that gives rise to and

can be used for the expression of social factors, and so changes the form of signs in writing. But it is the social conditions which enable that use in the first instance. Nevertheless, we also have to remain aware that technology as tool has its shaping effect. The possibilities of technical production effect the facility with which we may use the various modes. Colour printing is still expensive; working with images, even with the new technologies, has greater costs, both in terms of computer storage and in terms of the user's technical competence.

I think that at this time it is essential to look at quite basic, deep and also extremely simple things. The book will have something to say about the *stuff* of writing, its materiality, and its relation to the *stuff* of speech. This is a necessary step at a time when there threatens a new separation of the human body and technology. It will say something about image, and its relation to writing. It will say something about *work*, because it is human work that shapes all that we recognise as cultural, and which makes us human. The book will focus on how we use these resources in our everyday making of meaning as messages. It will pay attention to the context of the social, economic and political changes of the present period and those of the near future. But it cannot do all these equally. So the focus will, after all, be on writing in the present, with speculation just here and there about its future.

I know that despite the grand canvas here, my interests are partial. They lie in the materiality of the resources, and in how humans work with them in the demands of their lives. I am interested in this matter of material, of stuff, and how humans have worked with it and have worked it. I am aware that this partial focus needs to be complemented – matched – with the interests and the work of those who look much more and in great detail at *practices*. And the by now very extensive work in the area of literacy practices (and literacy events) needs to be complemented by work on the affordances and potentials of the stuff, the material which is involved in the practices. In my view, practices can only be understood when the potentials and limitations of the tools with which one practises are understood. And the stuff is culturally remade precisely in those practices. Theories are designed – like all tools – to do specific things. Extending one theory too far, into a domain for which it was never meant, does no one a service; I hope that I have observed well the limits of a semiotic, multimodal approach to these questions.

This may sound as though my academic interests are as they are for reasons of some objective notion of greater insight or better theory. So maybe I should say that I think that 'academic interests' are never just that, blandly and abstractly. Work is always meaningful, it is a 'sign' of who the person working is; and if it is *chosen work* then even more so. My interest, and the form of my interest, in speech and writing and the connections of these with culture and with power, is such a sign. I came to a new culture and its forms of communication – not just of 'language', but of clothing, food, styles of housing, forms of leisure, gendered being and gendered relations, all the vast and subtle meanings, the value system to which we give the name 'culture' – at the age of

sixteen, when I had already learned them in another culture, with its 'language'. Coming to that new society and its cultures in a particular way – mid-teenage, immigrant, 'German' with all its meanings in an only just post-war Australia – gave me a felt sense of what that difference is about. That is the source of my interests and of the line that I have followed in my academic work. The question I have asked for myself is, 'what knowledge do we need to produce and what resources do we need to make available, openly and explicitly, so that such issues can be handled productively by all?' In time, there was for me the sharper version of that question: how could transparency lead to wider social change? Knowing, as experience, the effects of culture – feeling it in my body even now in the move, say, from one language to another, from one style of writing to another – has given my academic work its shape and purpose: trying to understand how we as humans come to be who we are in our cultural and social environments. Of course, all the modes of communication are implicated in this, not only those which our cultures treat as the major modes.

My emphasis on *work*, throughout the book, is meant as more than a rhetorical flourish. Intellectual endeavour is work, and work always in the company – at times close, at times too distant – of others. Much of what is in this book continues work in the past with David Aers, Bob Hodge and Tony Trew. I am sometimes told that I have moved from the interest of that earlier work, with its political edge and with its eye on social change. That is not how I see it. I also see the book in one line with my earlier writing on questions of 'literacy' – though I thought of it then as 'writing'. But I have learned some things along the way. Over recent years that learning has been first and foremost in constantly pleasurable work and conversation with Carey Jewitt. Theo Van Leeuwen and I have talked and worked for many years now on such things. Both will no doubt recognise much here as theirs; all I can say is 'thank you'. The term 'affordances' – as well as much else – I took from Jon Ogborn; it has become central in how I think about representation. I owe much to Mary Scott's subtly theorised writing in academic literacy. In my work environment I have been fortunate in colleagues and fellow researchers – Bob Cowen, Anton Franks, Lesley Lancaster, Di Mavers, Charmian Kenner, Paul Mercer, Kate Pahl, Euan Reid. I owe to them more than just the pleasure of collegial challenge. More distantly now but always present, and over a long period, I have benefited from the friendship and the ideas of Bill Cope and of Mary Kalantzis. Much that is now part of 'my' thinking about economic environments and their effects I learned from Jim Gee. Jim Martin's friendship and generous intellectual support for what at times seemed, even to me, wilder thoughts, often proved an essential prop. In 1990 I attended a lecture given by David Barton at the University of Lancaster, in which he outlined his ideas and those of others working 'in' literacy at Lancaster – Romy Clark, Mary Hamilton, Roz Ivanic – in which literacy practices, a term not then in my repertoire, are tracked in the micro-histories of everyday lives. Strangely, given that 'the social' had been an overt concern in the work I had done before, it proved a most fruitful moment for me. I saw differently from then on. Now, by what is for me a delightful coincidence, I am able to contribute to the series of which he is the editor. And over recent years I have been fortunate in having many enjoyable interactions with Brian Street, here in London, where we have put our ideas next to each other, certainly with great benefit to me.

And then there are those whose work is essential for there to be books at all. Louisa Semlyen provided me with the constant encouragement of just the right mixture of juicy carrot and barely wielded stick through the longish period of gestation of this book. I give her my sincerest thanks for her support. Academic work goes side by side with the work of life, and life is lived with many others. Of those others Jill Brewster's never-failing support has made possible what I have achieved.

3

GOING INTO A
DIFFERENT WORLD

Into new contexts for writing

The world of communication is not standing still. The communicational world of children now in school is both utterly unremarkable to them and yet it looks entirely different to that which the school still imagines and for which it still, hesitantly and ever more insecurely, attempts to prepare them. All of us already inhabit that new world. Some of us still use the older forms of communication and at the same time have become comfortable enough with many of the possibilities of the newer forms of communicating on paper or on the screen – not fully realising and yet at the same time uncomfortably aware of the profound changes that are taking place around us. We no longer regard it as unusual that we can change fonts in mid-text, that we can **embolden** the typeface or *italicise* it, and all with next to no effort.

Of course such changes make only a small difference to the meaning of our 'written' texts. Layout, on the other hand, also very readily manipulated now, does change the deeper meanings of the text. It matters whether I put my ideas smoothly flowing along the lines of the page, or whether I present them to you as bullet-points:

*   The 'force' and
*   the 'feel' of the text have changed. It has become
*   more insistent,
*   more urgent,
*   more official. It is now about
*   presenting information.

Layout is beginning to change textual structures; that much is clear. With such changes – which may seem superficial – come others, which change not only the deeper meanings of textual forms but also the structures of ideas, of conceptual arrangements, and of the structures of our knowledge. Such seemingly superficial changes are altering the very channels in which we think. Bullet points are, as their name suggests, bullets of information. They are 'fired' at us,

abrupt and challenging, not meant to be continuous and coherent, not inviting reflection and consideration, not insinuating themselves into our thinking. They are hard and direct, and not to be argued with.

The more profound changes have come, over the last two decades or so, from a number of distinct yet connected factors. Even though they involve the new information and communication technologies, they constitute a revolution of a social and not just a technological kind. These changes are unmaking the era of mass communication and its social structures, through a new distribution of the means of access to the production and reception of messages in the public domain. This constitutes a restructuring of power in the field of representation and communication, in which the technology of writing is deeply implicated. Before, the power to produce messages for dissemination in the public domain lay with the few who had access to and control of the media for disseminating messages.

At different points in history, that access has been – and still often is – tightly regulated by authorities of the state, the church or the 'party', of 'capital', or of others. The relation of those who produced messages and could disseminate them to those who received them was that of *few* to *many*. These were the conditions of the era of mass communication. The new information and communication technologies have produced the technological condition where all can publish to all, and by means of that enormous change they have abolished the era of mass communication. But this is a technological condition, and exists 'in principle' only, for if, in the past, power attached to the control of the means for dissemination of information, it does so still, and it is not likely that that power will be ceded easily and without contest by those who have it now to those who do not have that power. In other words, the potentials of these technologies imply a radical social change, a redistribution of semiotic power, the power to make and disseminate meanings. This change becomes even more potent now, when the new economies are increasingly economies in which information is both the major resource in production and the main commodity for consumption.

The change to existing distributions of power could only come about with such relative ease – so far at least – because the previous structures of control of that power had become radically unsettled, through the effects of globalisation. However clichéd and contested the concept may be, globalisation of both finance capital and popular culture – all cultural production is 'popular' the moment it becomes a commodity – is a fact. Its effects at the level of the 'Western' nation state have been to dissolve both the frames which had held structures of power in place and the connections that obtained between them.

First and foremost of these were the previously tight relations of nation state and national economy on the one hand, and of nation state, national economy and the meanings and values of 'citizenship' on the other. Other institutions, such as the church or 'the party', have played significant roles, semi-independently of state and economy. But from these connections all power

flowed, and all relevant value systems, public and private, were derived. It was these connections which produced and sustained the structures of the mass society, the economies of mass-production, 'mass' institutions such as hospitals, police forces, the mass (conscription-based) army, schools, railways and, of course, the institutions of mass communication, the publishing industry in general, books, newspapers and, later, radio and terrestrial television. All these together produced a tightly organised value system to give meaning to all aspects of lives lived in that structure of frames.

The uses and the forms of literacy have been tied into these structures, and still remain tied into their new configurations. Individual users of the technology of 'literacy' are integrated into such webs of structures. In making their meanings as messages in these webbed domains, individuals constantly sustain, produce and transform the resources of the technology of literacy, in line with the needs, demands, meanings and desires which they live and experience in these environments. In this way the shape of the resources becomes, and then *is*, an expression and reflection of the meanings that individuals make. To use a small example, we know that levels of formality, as one index of social power relations, have changed; this is reflected in the resources of language and hence of literacy through their use in the contexts of the new social arrangements. If the boundaries of (the always socially produced notions of) the public and the private have changed, or have become seemingly more blurred, or have in some cases disappeared, then the markers of those boundaries will also change in the resources of literacy. One such set of markers of the distinction between the public and the private concerned a more or less strongly maintained difference in use of (informal) speech, that is, speech relatively unmarked for power-difference, and (formal) writing, that is, writing marked by power-difference. In that situation it was regarded as 'inappropriate', inadmissible even, to use speech-like forms in writing. Academic writing, professional writing of various kinds, official writing, all were marked by a strict observation of this difference. The use of the agentless passive – 'it has been claimed that . . .' – was one such marker in academic writing; another was the use of highly complex sentence syntax. All these are now beginning to disappear, at different pace in different domains. So, for example, in some disciplines, and in some universities in the English-speaking world, it is no longer required to write theses or academic articles using such forms.

Of course, these changes have been spurred along by the rapid development of the 'new media'. But to look for the explanation for such changes in the new technologies, in communication more widely, or in the resource of literacy more narrowly, is to mistake the effect for the cause. Technologies become significant when social and cultural conditions allow them to become significant. The new information and communication technologies have both made possible and been a part of the more profound force of (economic and cultural) globalisation. The unfettered movement of finance capital is made *technologically* possible by electronic communication, though it is made *politically* possible by the global

power of transnational finance capital; it has provided the conditions of that freedom. The same applies to the free movement around the globe of cultural commodities – whether the products of Holly- or Bollywood. The free movement of cultural commodities has been as significant in unmaking the formerly relative stabilities and distinctiveness of cultural forms and values as have the effects of economic globalisation, even if differently so. Cultural globalisation has been the servant of economic globalisation in two ways. It has provided the conditions of the appearance of 'naturalness' to the globalisation of capital. After all, if it has become commonplace that I have access to the cultural products of anywhere, here, in my locality, it will seem perverse that other commodities should not be equally available. Cultural globalisation has prepared the ground for a global market for commodities which are in any case now more and more 'cultural'.

The new environment of writing

It is there that we need to look to understand the changes in communicational practices, those of literacy included, which are remaking the world around us. However, from the point of view of this book, a book focused on literacy in the new media age, there are two issues of absolute significance which bear more directly on communication through writing. The first relates to the media of communication: the effects of the ubiquity and dominance of the 'screen', and its effect on writing. The second concerns not the media but the modes of communication: the ever-increasing presence of image – in all forms – in contemporary messages.

To make a comment briefly on both of these, until relatively recently – say the last three or four decades – the medium for the dissemination of writing was the book and the page. An entirely reciprocal relation existed between the medium (the book or page) and the mode (writing). The forms of writing structured the appearance of the page, as much as the organisation of the book. Conversely, the book and the page gave shape to far-reaching aspects of the grammatical and textual forms of writing. This extended from sentence to paragraph to chapter – to all aspects of the conceptual shaping of ideas in writing, to the sentence as a complex idea, to the chapter as a coherent exposition of an internally cohesive 'body' of knowledge – and to the aesthetics, the 'look', of writing. This could be the shape and look of writing on the page, or the size of chapters and of sections of the book. The logic of the mode of writing shaped and organised the book and its pages. The potentials of the medium of the book and the page gave rise both to the shaping of knowledge and ideas and to the distributions of power between those who could produce the written text and distribute the book and those who received the book and its text as authoritative objects.

If the book was organised and dominated by the logic of writing, the screen is organised and dominated by the image and its logic. The logic of (alphabetic)