A Social History of the Media

the Media

From Gutenberg to the Internet

Second edition

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polity

Contents

Preface

The aim of this book – on a vast and ever-expanding theme – is to show the relevance of the past to the present by bringing history into media studies and the media into history. Our own choice of medium reflects a qualified optimism in the future of the book, which we believe will continue to exist alongside newer forms of communication as manuscripts did in the age of print. There will be a new division of labour between media.

So far as our own division of labour is concerned, Peter Burke is primarily responsible for Chapters 1–3, Asa Briggs for Chapters 4–8, but the two authors joined forces to revise the text, meeting regularly in different locales, from King's Cross Station to Claridge's, as well as keeping in touch by telephone. Historians of the twenty-first century may like to note that the text was written partly in longhand and partly on a personal computer by two academics whose resistance to driving cars and using e-mail is in no way incompatible with an interest in technological and social change in the present and the future as well as in the past.

We should like to thank Amleto Lorenzini for first yoking us together in a project on the history of communication, and John Thompson for commissioning the volume. We are indebted to Pat Spencer for her help in getting both the first edition and this new thoroughly revised edition into the hands of the printers and Peter Burke is grateful to Joad Raymond for his comments on a draft of Chapter 3.

1 Introduction

It was only in the 1920s – according to the *Oxford English Dictionary* – that people began to speak of 'the media', and a generation later, in the 1950s, of a 'communication revolution', but a concern with the means of communication is very much older than that. Rhetoric, the study of the art of oral and written communication, was taken very seriously in ancient Greece and Rome. It was studied in the Middle Ages, and with greater enthusiasm in the Renaissance.

Rhetoric was still taken seriously in the eighteenth and nineteenth centuries, when other key ideas were emerging. The concept 'public opinion' appeared in the late eighteenth century, while a concern with the 'masses' is visible from the early nineteenth century onwards, at the time when newspapers, the history of which is charted in each chapter, were helping to fashion national consciousness by making people aware of their fellow readers.

In the first half of the twentieth century, especially in the wake of two world wars, scholarly interest shifted towards the study of propaganda. More recently, some ambitious theorists, from the French anthropologist Claude Lévi-Strauss to the German sociologist Niklas Luhmann, have extended the concept of 'communication' still more widely. Lévi-Strauss wrote about the exchange of goods and women. Luhmann about power, money and love as so many *Kommunikationsmedien*. If this is the case, as readers may already be asking themselves, what in the world does not count as communication? This history will restrict itself to the communication of information, ideas and entertainment in words and images by means of speech, writing, print, radio, television and most recently by the Internet.

Significantly, it was in the age of radio that scholars began to recognize the importance of oral communication in ancient Greece and in the Middle Ages. The beginning of the television age in the 1950s brought in visual communication as well and stimulated the rise of an interdisciplinary theory of the media. Contributions were made from economics, history, literature, art, political science, psychology, sociology and anthropology, and led to the emergence of academic departments of communication and cultural studies. Striking phrases encapsulating new ideas were coined by Harold Innis (1894–1952), who wrote of the 'bias of communications'; by Marshall McLuhan (1911–80) who spoke of the 'global village'; by Jack Goody, who traced the 'domestication of the savage mind'; and by Jürgen Habermas, the German sociologist who identified the 'public sphere', a zone for 'discourse' in which ideas are explored and 'a public view' can be expressed.

This book argues that, whatever the starting-point, it is necessary for people working in communication and cultural studies – a still growing number – to take

Fig. 1 Anon, *The Vision of St Bernard*, Book of Hours, c.1470.

history seriously, as well as for historians – whatever their period and preoccupations – to take serious account of communication, including both communication theory and communications technology.

Students of communication should realize that some phenomena in the media are older than is generally recognized, as two examples may suggest. Today's television serials follow the model of radio serials, which in turn follow the model of the stories serialized in nineteenth-century magazines (novelists from Dickens to Dostoevsky originally published their work in this way). Again, some of the conventions of twentieth-century comic books draw directly or indirectly on an even longer visual tradition. Speech balloons can be found in eighteenth-century prints, which are in turn an adaptation of the 'text scrolls' coming from the mouths of the Virgin and other figures in medieval religious art (see Figure 1). St Mark, in the painting by Jacopo Tintoretto (1518–94) known as *St Mark rescuing a slave*, is presented like Superman in the comics four hundred years later, diving head first from Heaven to rescue a Christian captive (Figure 2).

Denunciations of new media follow a similar pattern, whether the object of these denunciations is television or the Internet, and they take us back to debates about the unfortunate effects of romances on their readers and of plays on their audiences as early as the sixteenth century, stressing the stimulation of the passions. San Carlo Borromeo (1538–84), archbishop of Milan, described

Fig. 2 Tintoretto, *St Mark Rescuing a Slave*, 1548. Venice, Galleria dell'Accademia.

plays as the 'liturgy of the devil'. The first chapter of Dennis and Merrill's *Four Arguments for the Elimination of Television* was entitled 'The Belly of the Beast'. The role of the press, and of the journalists who earn their living from it, has always been controversial: the unreliability of the 'gazetteers' was already a commonplace in the seventeenth century. The charge of 'muck-raking' is also an old one.

Despite all such continuities, this book will concentrate on changes in the media; in presenting them, an attempt will be made to avoid two dangers, that of asserting that everything has got worse or that of assuming that there has been continuous improvement. Either way, the implication that trends have moved in a single direction must be rejected, although writers trusting in it have often been eloquent and distinguished in their own fields. Thus, the Italian historian Carlo Cipolla, in his study of *Literacy and Development in the West* (1969), stressed the contribution of literacy to industrialization and more generally to 'progress' and to 'civilization', suggesting that 'widespread literacy meant . . . a more rational and more receptive approach to life'. In this respect, Cipolla's work is representative of a mid-twentieth-century faith in 'modernization', a faith which underlay the literacy campaigns organized by UNESCO and by the governments of Third World countries such as Cuba.

The problems raised by this kind of approach demand discussion (see p. 207). So, too, do statements about the Internet and its potential as an agency of 'democratization'. It is not possible at this point in its history to conclude that through the widening of access and its transformation 'from below' it will in the long run fulfil that role. Already some critics fear that it undermines all forms of 'authority', affects behaviour adversely, and jeopardizes individual and collective security. Rightly, therefore, a number of specialists in media studies have focused on what they call 'media debates'. They concern both topical issues and long-term processes.

A relatively short history like this must be extremely selective and must privilege certain themes, like the role of the public sphere, the supply and diffusion of information, the growth of networks and the rise of mediated entertainment. It must also concentrate on change rather than continuity, although readers will be reminded from time to time that, as new media were introduced, older ones were not abandoned but coexisted and interacted with the new arrivals. Manuscripts remained important in the age of print, as books and radio did in the age of television. The media need to be viewed as a system, a system in perpetual change in which different elements play greater or smaller roles.

What follows is essentially a social and cultural history with the politics, the economics and – not least – the technology put in, yet it rejects technological determinism, which rests on misleading simplifications (see pp. 11–12, 14). We have been influenced at the outset by the simple but deservedly famous classic formula of the American political scientist Harold Lasswell (1902–78), describing communication in terms of who says what to whom in which channel and with what effect. The 'what' (content), the 'who' (control) and the 'whom' (audience) matter equally. So, too, does the 'where'. The responses of different groups of people to what they hear, view or read always demand study. How big the

different groups are – and whether they constitute a 'mass' – is also relevant. The language of the masses emerged in the course of the nineteenth century and reminds us to consider Lasswell's 'whom' in terms of 'how many?'

The immediate intentions, strategies and tactics of communicators need at every point in the story to be related to the context in which they are operating – along with the messages that they are communicating. The long-term effects, especially the unintended and sometimes surprising consequences of the use of one means of communication rather than another, are more difficult to separate, even with the gift of hindsight. Indeed, whether 'effects' is the right term, implying as it does a one-way cause–effect relationship, is itself a subject of controversy. The words 'network' and 'web' were already in use in the nineteenth century.

This book concentrates on the modern West, from the late fifteenth century onwards. The narrative begins with printing (c.1450 AD) rather than with the alphabet (c.2000 BC), with writing (c.5000 BC) or with speech, but despite the importance often attributed to Johann Gutenberg (c.1400–68), whom readers of one British newspaper voted 'man of the millennium' (*Sunday Times*, 28 November 1999), there is no clean break or zero point at which the story begins, and it will sometimes be necessary to refer back briefly to the ancient and medieval worlds. In those days, communications were not immediate, but they already reached to all the corners of the known world.

The twentieth-century Canadian Harold Innis was one of several scholars who noted the importance of the media in the ancient world. Trained as an economist, he made his reputation with the so-called 'staple theory' of Canadian development, noting the successive dominance of the trade in furs, fish and paper, and the effects of these cycles on Canadian society. 'Each staple in turn left its stamp, and the shift to new staples invariably produced periods of crisis.' The study of paper led him into the history of journalism, and the study of Canada, where communications mattered profoundly for economic and political development, colonial and postcolonial, drew him to the comparative history of empires and their media of communication, from ancient Assyria and Egypt to the present. In his *Empire and Communications* (1950), Innis argued, for instance, that the Assyrian Empire was a pioneer in the construction of high-ways: it was claimed that a message could be sent from any point to the centre and an answer received within a week.

As a good economic historian, when he wrote of 'media', Innis meant the materials used for communication, contrasting relatively ephemeral durable substances such as parchment, clay and stone with relatively durable products such as papyrus and paper (the sections on the so-called 'ages' of steam and electricity later in this book will underline his point about the material media of communication). Innis went on to suggest that the use of the heavier materials, as in the case of Assyria, led to a cultural bias towards time and towards religious organizations, while the lighter ones, which may be moved quickly over long distances, led to a bias towards space and political organizations. Some of his earlier history is weak and some of his concepts are ill-defined, but the ideas of Innis as well as his broad comparative approach remain a stimulus as well as an inspiration to later workers in the field. It is to be hoped that future historians will analyse the

consequences of using plastic and wire in the way in which Innis approached stone and papyrus.

Another central concept in Innis's pioneering theory was the idea that each medium of communication tended to create a dangerous monopoly of knowledge. Before Innis decided to become an economist, he thought seriously about becoming a Baptist minister. The economist's interest in competition, in this case competition between media, was linked to the radical Protestant's critique of 'priestcraft'. Thus, he argued that the intellectual monopoly of medieval monks, based on parchment, was undermined by paper and print, just as the 'monopoly power over writing' exercised by Egyptian priests in the age of hieroglyphs had been subverted by the Greeks and their alphabet.

In the case of ancient Greece, however, Innis emphasized speech more than the alphabet. 'Greek civilization', he wrote, 'was a reflection of the power of the spoken word.' In this respect he followed a Toronto colleague, Eric Havelock (1903–88), whose *Preface to Plato* (1963) focused on the oral culture of the early Greeks. The speeches in the Assembly at Athens and the plays recited in the open-air amphitheatres were important elements of ancient Greek civilization. In this, as in other oral cultures, songs and stories came in fluid rather than fixed forms, and creation was collective in the sense that singers and storytellers continually adopted and adapted themes and phrases from one another. So do scholars today, although plagiarism is denounced and our conceptions of intellectual property require that the source of borrowed material be acknowledged, at least in a footnote.

Clarifying the process of creation, the Harvard professor Milman Parry (1900–35) argued that the *Iliad* and the *Odyssey* – although they have survived into our own time only because they were written down – were essentially improvised oral poems. To test this theory, Parry carried out fieldwork in the 1930s in rural Yugoslavia (as it then was), recording performances by narrative poets on a wire-recorder (the predecessor of the tape recorder). He went on to analyse the recurrent formulae (set phrases such as 'wine-dark sea') and recurrent themes (such as a council of war or the arming of a warrior), prefabricated elements which enabled the singers to improvise their stories for hours at a time.

In Parry's work, developed by his former assistant Albert Lord in *The Singer of Tales* (1960), Yugoslavia, and by analogy Homeric Greece, illustrated the positive aspects of oral cultures which had too often been dismissed – as they sometimes still are – as merely 'illiterate'. That ancient Greek culture was shaped by the dominance of oral communication is a view which is now widely shared by classical scholars.

Yet Alexander the Great carried Homer's *Iliad* with him on his expeditions in a precious casket, while a great library of about half a million rolls was founded in the city named after him, Alexandria. It is no accident that it was in association with this vast library of manuscripts, which allowed information and ideas from different individuals, places and times to be juxtaposed and compared, that a school of critics developed, taking advantage of the library's resources to develop practices which would only spread in the age of print (see p. 18). The balance between media is discussed in Rosalind Thomas's *Literacy and Orality in Ancient Greece* (1992).

Images, especially statues, were another important form of communication, indeed of propaganda, in the ancient world, notably in Rome in the age of Augustus. This Roman official art was to influence the iconography of the early Church: the image of Christ 'in Majesty', for example, was an adaptation of the image of the emperor. For Christians, images were both a means of conveying information and a means of persuasion. As the Greek theologian Basil of Caesarea (c.330–79) put it, 'artists do as much for religion with their pictures as orators do by their eloquence'. In similar fashion, Pope Gregory the Great (c.540–604) described images as doing for those who could not read, the great majority, what writing did for those who could. The tactile aspect of images also deserves to be noted. Kissing a painting or a statue was a common way of expressing devotion, and one still to be seen in the Catholic and Orthodox worlds today.

It was the Byzantine Church which stayed close to ancient models. Christ as Pantocrator ('ruler of all') figured in the mosaics decorating the interior of the domes of Byzantine churches. In a part of Europe where literacy was at its lowest, Byzantine culture was a culture of painted icons of Christ, the Virgin and the saints. As an eighth-century abbot declared: 'The gospels were written in words, but icons are written in gold.' The term 'iconography' would pass into high culture and later, in the twentieth century, into popular culture, where 'icon' refers to a secular celebrity such as – appropriately enough – Madonna, the pop singer.

Byzantine icons could be seen in homes and streets as well as in churches, where they were displayed on the iconostasis, the doors screening the sanctuary from the laity. There was no such separation in the Roman Catholic churches. In both faiths symbolism was a feature of religious art and the messages it conveyed, but in Byzantium, unlike the West until the Reformation, teaching through visual culture was sometimes under assault, and images were intermittently attacked as idols and destroyed by iconoclasts (image-smashers), a movement which reached its climax in the year 726.

Islam banned the use of the human figure in religious art, as did Judaism, so that mosques and synagogues looked very different from churches. Nonetheless, in Persia from the fourteenth century, human figures along with birds and animals were prominent in illuminated manuscripts which went on to flourish in the Ottoman Empire and Mogul India. They were illustrating history or fable. The most famous western example of such illustration was in needlework, the *Bayeux Tapestry* (c.1100), which vividly depicted the Norman Conquest of England in 1066. A strip 232 feet long presented a visual narrative which has sometimes been compared to a film in respect of its techniques and effects.

In medieval cathedrals, images carved in wood, stone or bronze and figuring in stained-glass windows formed a powerful system of communication. In his novel *Notre Dame de Paris* (1831–2), Victor Hugo portrayed the cathedral and the book as two rival systems: 'this will kill that'. In fact, the two systems coexisted and interacted for a long time, like manuscript and print later. 'To the Middle Ages', according to the French art historian Emile Mâle (1862–1954), 'art was didactic'. People learned from images 'all that it was necessary that they should know' – the history of the world from the creation, the dogmas of religion, the examples of the saints, the hierarchy of the virtues, the range of the sciences, arts
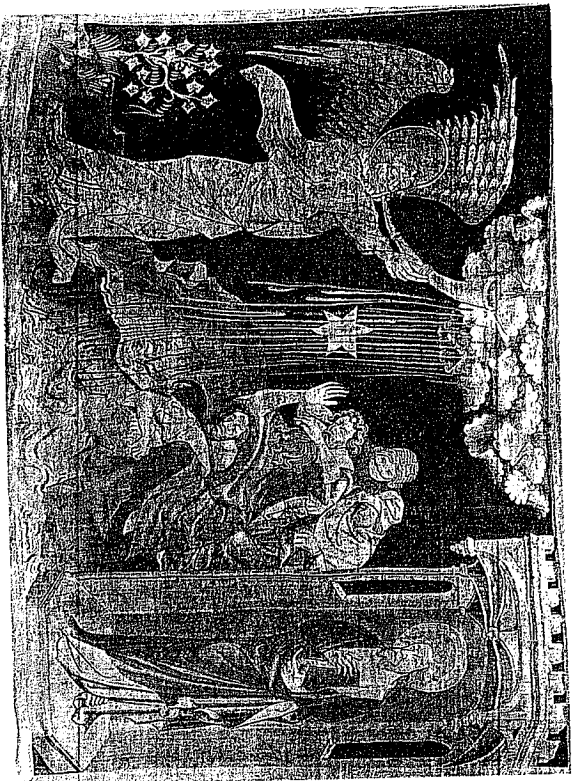
and crafts: all this was taught them by the windows of the church or by the statues in the porch.

Ritual was another important medieval medium which remained significant in later contexts. The importance of public rituals in Europe, including the rituals of festival, during the thousand years 500-1500 has been explained (perceptively if inadequately) by the low rate of literacy at that time. What could not be recorded needed to be remembered, and what needed to be remembered had to be presented in a memorable way. Elaborate and dramatic rituals such as the coronation of kings and the homage of kneeling vassals to their seated lords demonstrated to the beholders that an important event had occurred. Transfers of land might be accompanied by gifts of symbolic objects such as a piece of turf or a sword. Ritual, with its strong visual component, was a major form of publicity, as it would be once more in the age of televised events such as the coronation of Queen Elizabeth II. The word 'spectacle', commonly used in the seventeenth century, was revived in the twentieth century. (See below, p. 201.)

Nonetheless, medieval Europe, like ancient Greece, has been viewed as an essentially oral culture. Preaching was an important means of spreading information. In the words of a pioneering student of the subject, the Cambridge don H. J. Chaytor, what we now call medieval literature was produced for 'a hearing not a reading public.' In his book *From Script to Print* (1945), he explained that if the reading room of (say) the British Library were to be filled with medieval readers, 'the buzz of whispering and muttering would be intolerable.' Medieval

Fig. 3 Anon tapestry, *Apocalypse*, 14th century.

accounts were 'audited' in the literal sense of someone listening to them being read aloud. So were poems of all kinds, monastic or secular. The Icelandic saga, stretching back into a non-Graeco-Roman past, takes its name from the fact that it was read aloud, in other words spoken or 'said'.

It was only very gradually, from the eleventh century onwards, that writing began to be employed for a variety of practical purposes by popes and kings, and a trust in writing (as Michael Clanchy showed in *From Memory to Written Record*, 1979) developed still more slowly. In England in 1101, for example, some people preferred to rely on the word of three bishops rather than on a papal document which they described contemptuously as 'the skins of wethers blackened with ink'. Yet, despite such examples of resistance, the gradual penetration of writing into everyday life in the later Middle Ages had important consequences, including the replacement of traditional customs by written laws, the rise of forgery, the control of administration by clerks (literate clerics) and, as Brian Stock has pointed out in *The Implications of Literacy* (1972), the emergence of heretics who justified their unorthodox opinions by appealing to biblical texts, thus threatening what Innis called the 'monopoly' of knowledge of the medieval clergy. For these and other reasons, scholars speak of the rise of written culture in the twelfth and thirteenth centuries.

Manuscripts, including illuminated manuscripts, were being produced in increasing numbers in the two centuries before the invention of printing, a new technology introduced in order to satisfy a rising demand for reading matter. And in the two centuries before printing, visual art was also developing what in retrospect came to be regarded as portraiture. The poet Dante and the artist Giotto (1266-1330) were contemporaries. Both were fascinated by fame, as was Petrarch (1304-74) a generation later, and all three achieved it in their own lifetime. So, too, did Boccaccio (1317-75) and Chaucer (?1340-1400) in England. The latter wrote a remarkable poem, 'The House of Fame', which through the images of dream drew on the treasury of his brain to contemplate what fame meant. Petrarch wrote a 'Letter to Posterity' in which he gave personal details, including details of his personal appearance, and proudly proclaimed that 'the glorious will be glorious to all eternity'. The emphasis on permanence would be still stronger in the age of print.

Following the development of electrical communication, beginning with the telegraph in the nineteenth century (see pp. 20-1), a sense of imminent as well as immediate change developed, and the media debates of the second half of the twentieth century have encouraged re-evaluation both of the invention of printing and of all the other technologies that were treated at their beginning as wonders. That changes in the media have had important social and cultural consequences is generally accepted. It is the nature and scope of these consequences which is more controversial. Are they primarily political or psychological? On the political side, do they favour democracy or dictatorship? The 'age of radio' was not only the age of Roosevelt and Churchill but also that of Hitler, Mussolini and Stalin. On the psychological side, does reading, listening or viewing encourage empathy with others or do they encourage withdrawal into a private world? Does television or 'the Net' destroy communities or create new kinds of community in which spatial proximity is less important?

Again, are the consequences of literacy, or of television, more or less the same in every society or do they vary according to the social or cultural context? Is it possible to distinguish cultures of the eye, in which what is seen outweighs what is heard, and cultures of the ear, more attuned to soundscapes? Chronologically, is there a 'Great Divide' between oral and literate cultures, or between societies pre- and post-television? How do the steam engine and industrialization relate to this division? With its invention, adoption and development, locomotives and steamships could reduce travel times and extend markets. And electronics, a word not used in the nineteenth century, brought immediacy nearer, as nineteenth-century commentators already anticipated.

Some of the people who initiated media debates gave positive answers, not only Cipolla (see p. 4), but theorists from quite different academic backgrounds, such as Marshall McLuhan and his student Walter Ong, best known for his *Orality and Literacy* (1982). The former quickly established his own fame while the latter was content to be a priest and scholar. In *The Gutenberg Galaxy* (1962), written in experimental form, *Understanding Media* (1964) and other works, McLuhan, following in the wake of his Toronto colleagues Innis and Havelock, asserted the centrality of the media, identifying and tracing their specific characteristics irrespective of the people who use them, the organizational structures within which their providers operate and the purposes for which they are used.

For McLuhan, who had been trained as a literary critic, what was important was not the content of communication so much as the form that it took. He encapsulated his interpretation in memorable phrases like 'the medium is the message' and the distinction between 'hot' media such as radio and cinema and 'cool' media such as television and the telephone. More recently, the psychologist David Olson, another Canadian, in *The World on Paper* (1994), coined the phrase 'the literate mind' to sum up the changes which the practices of reading and writing have made – so he argues – to the ways in which we think about language, the mind and the world, from the rise of subjectivity to the image of the world as a book. Ong, more interested in context, acknowledged his debt to this Toronto school of media theory (the name, like that of the Frankfurt school (see pp. 200–1), is a reminder of the continuing importance of cities in academic communication). He emphasized the differences in mentality between oral cultures and writing cultures, noting, for example, the role of writing in 'decontextualizing' ideas, in other words, taking them out of the face-to-face situations in which they were originally formulated in order to apply them elsewhere.

The anthropologist Jack Goody discussed both the social and the psychological consequences of literacy in ways which run parallel to Ong's. In *The Domestication of the Savage Mind* (1977), for example, Goody emphasized the reorganizing or the ancient Middle East, for example, Goody emphasized the reorganizing or reclassification of information, another form of decontextualization made possible by writing. Drawing on his own fieldwork in West Africa, he noted the tendency of oral cultures to acquire what he calls 'structural amnesia', in other words forgetting the past, or more exactly remembering the past as if it were like the present. The permanence of written records, on the other hand, acts as an obstacle to this kind of amnesia and so encourages an awareness of the difference between past and present. The oral system is more fluid and flexible, the written

system more fixed. Other analysts have made more sweeping claims about the consequences of literacy as a condition for the rise of abstract and critical thought (not to mention empathy and rationality).

These claims about the consequences of literacy have been challenged, notably by another British anthropologist, Brian Street. In *Literacy in Theory and Practice* (1984), Street criticized not only the concept of the 'Great Divide' but also what he calls the 'autonomous model' of literacy as 'a neutral technology that can be detached from specific social contexts.' In its place he proposed a model of literacies in the plural which focused on the social context of practices such as reading and writing and the active role of the ordinary people who make use of literacy. Taking examples from his fieldwork in Iran in the 1970s, he made a contrast between two literacies, the art of reading taught in the Koranic school and the art of keeping accounts taught in the commercial school in the same village.

A similar point might be made about modern Turkey, where the country's leader Kemal Atatürk ordered a change from Arabic script to the western alphabet in 1929, declaring that 'our nation will show with its script and with its mind that its place is with the civilized world.' The change vividly illustrates the symbolic importance of the media of communication. It is also related to the question of memory, since Atatürk wanted to modernize his country and by changing the script he cut the younger generation off from access to written tradition. However, in the Koranic schools in Turkey, as in Iran, the traditional Arabic script is still taught.

The exchange between Goody and Street, together with the more recent debate on virtual reality and cyberspace, offers vivid and always pertinent illustrations of both the insights and the limitations associated with disciplinary biases. In the course of their fieldwork, anthropologists, for example, have more opportunities than historians for investigating social context in depth, but fewer opportunities for observing changes over the centuries. From the 1990s onwards, the media analyses of both anthropologists and historians were pushed aside by writers (including novelists and film-makers). Meanwhile, economists, when they confronted the issues raised under the heading 'globalization' (see p. 256), tended to concentrate on what was statistically measurable. Some producers and scriptwriters, bypassing the problem of the relation of science to technology, reduced 'all the things in the world to blips, to data, to the message units contained within the brain and its adjunct the computer.' Others dwell on complexity and the way in which the computer has altered 'the architectonic of the sciences [and arts] and the picture we have of material reality.'

For historians and specialists in social studies, there is a continuing division between those who emphasize structure and those who emphasize agency. On one side, there are those who claim that there are no consequences of computers as such, any more than there are consequences of literacy (including visual literacy and computer literacy). There are only consequences for individuals using these tools. On the other hand, there are those who suggest that using a new medium of communication inevitably changes people's views of the world, in the long term if not earlier. One side accuses the other of treating ordinary people as passive, as objects undergoing the impact of literacy or

computerization. The reverse accusation is that of treating the media, including the press, as passive, as mirrors of culture and society rather than as agencies transforming culture and society.

This is not the place to attempt to close such debate. On the contrary, readers are asked to keep alternative viewpoints in mind while reading the pages which follow. No single theory provides a complete guide to the contemporary realm of 'high-definition, inter-drive, mutually convergent technologies of communication,' where relationships, inter-, individual and social, local and global, are in continuous flux.

2 The Print Revolution in Context

This chapter and the chapter which follows are concerned with Europe in what historians call the 'early modern' period, running from about 1450 to about 1789 – in other words from the 'print revolution' to the French and Industrial Revolutions. The year 1450 is the approximate date for the invention in Europe, probably by Johann Gutenberg of Mainz, of a printing press – perhaps inspired by the wine presses of his native Rhineland – which used movable metal type.

In China and Japan, printing had been practised for a long time – from the eighth century, if not before – but the method generally used was what is known as 'block printing,' the carved woodblock being used to print a single page of a specific text. This method was appropriate for cultures which used thousands of ideograms rather than an alphabet of twenty to thirty letters. It was probably for this reason that the Chinese invention of movable type in the eleventh century had few consequences. In the early fifteenth century, however, the Koreans invented a form of movable type with what has been described by the French scholar Henri-Jean Martin as 'an almost hallucinatory similarity to Gutenberg's'. The western invention may have been stimulated by news of what had happened in the East.

The practice of printing spread through Europe via a diaspora of German printers. By 1500, presses had been established in more than 250 places in Europe – 80 of them in Italy, 52 in Germany and 43 in France. Printers had reached Basel by 1466, Rome by 1467, Paris and Pilsen by 1468, Venice by 1469, Leuven, Valencia, Cracow and Buda by 1473, Westminster (distinct from the city of London) by 1476, and Prague by 1477. Between them, these presses produced about 27,000 editions by the year 1500, which means that – assuming an average print run of 500 copies per edition – about thirteen million books were circulating by that date in a Europe of 100 million people. About two million of these books were produced in Venice alone, while Paris was another important centre of printing, with 181 workshops in 1500.

In contrast, print was slow to penetrate Russia and the Orthodox Christian world more generally, a region (including modern Serbia, Romania and Bulgaria) where the alphabet was usually Cyrillic and literacy was virtually confined to the clergy. In 1564, a White Russian trained in Poland brought a press to Moscow, but his workshop was soon destroyed by a mob. This situation changed in the early eighteenth century thanks to the efforts of Tsar Peter the Great (ruled 1686–1725), who founded a press at St Petersburg in 1711, followed by the Senate Presses (1719) in Petersburg and Moscow, the Naval Academy Press (1721) and the Academy of Sciences Press (1727). The location of these presses suggests that the Tsar was interested in literacy and education primarily in order to make Russians

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The last three chapters, ranging, briefly and selectively, through territory as yet often unmapped, have suggested that the newness of recent developments in communications, particularly technological, can be greatly exaggerated, and that, whatever the coincidences and convergences, there has been no one single line of development. Revealing and useful as it may be to affix labels like the 'Age of Television' or the 'Digital Age' to past and present phenomena, as it was to write of an 'Age of Broadcasting' in the 1920s and 1930s (see p. 173), at best the labels tell us more about perception than they do about fact. Above all, there seemed in the 1980s and 1990s to be increased 'complexity', another key word beginning with 'c'. 'Cold War' retained its capital 'C'.

It was difficult not only to understand the political, economic and social implications of 'new technologies', but also to determine how to escape from 'moral mazes' associated with their development. Old problems centring on freedom and obligation were accompanied by new problems associated with human rights. Questions multiplied, many of them relating to the role of parents. Should children, for example, be prevented from watching 'harmful' media programmes? Technology to deal with technologies did not necessarily help. Nor did the law necessarily back up technology. The Communications Decency Act, seeking to bring the 'V-chip' into use, the law was declared unconstitutional by the Supreme Court (see p. 254). That was one manifestation of the dilemmas posed by television in the home, not a new phenomenon. But the Internet made matters more complex during the late 1990s. Should different rules be applied to the Internet from those applied to older media? Should, for example, 'pornography' be banned by law? It might be more difficult to control it, but doubtless new technological devices would be discovered to 'control' new technologies. In 2000 the US Congress enacted legislation requiring libraries to install 'filtering systems' as a condition for obtaining favourable 'e-rates' for connections to the Internet. That was regulation in an age of deregulation.

More frequently, however, in the USA and several other countries, although not in India, China or Singapore, 'self-regulation', a controversial term, was applied to new media as it had been in Britain to the press. Thus, when in 1999 Australia passed an Online Services Act, referring not only to 'prohibited' but also to 'unsuitable' and 'offensive' material, it was left to the Australian Broadcasting Authority to negotiate an industry code of conduct for home-produced material.

The 1990s was a decade when the shifting boundaries between media, old and new, and within each medium between the experimental and the established

were blurred, as were the boundaries between national media strategies and global problems and opportunities. National decisions had global implications and vice versa. The widely used term 'digital gap' was a gap not only between, but also within countries. In culture the boundaries had been breaking down for decades between 'high' and 'low', the comic strip and the illustrated history. So also had the boundaries between disciplines – history, sociology, anthropology, psychology, economics, law, for example – and between literary and film criticism and fiction, particularly science fiction. In behaviour, habit and addiction had become confused. And so, within the 'drug cultures' of many parts of the world – a term which remained in use in the twenty-first century – did hallucination and psychosis. For Timothy Leary, drug guru of the 1960s, writing twenty years later, computers were 'more addictive than heroin'. Twenty years after that, 'computer crime', some but not all of it highly sophisticated, was as much publicized as older forms of crime.

The American novelist William Burroughs, whom Gibson acknowledged as one of his predecessors, had applied the word 'virus' to the media – it had already been a theme in the cinema – before it began to be used by technologists and journalists in relation to computers in particular. There were also cross-media references. When a 'real-life computer virus' was described in the press in 'real time' in 1988, both the *New York Times* and *Time* magazine used comic strips to illustrate what was meant by 'viral infection', with *Time* adding an older historical gloss in its title, 'Invasion of the Data Snatchers'.

Each virus had its own 'signature', and while protection against some of them could be provided by anti-virus software, there was no complete guarantee of non-infection. Health parallels seemed pertinent, if only because there was an increasing concern during these years in the media and among politicians for both private and public health, the latter being redefined to cover bans on smoking and defences against obesity, but 'the soul' might provide images as well as the body. A so-called 'love bug' was widely publicized not least because it seemed to have originated not in the United States but in the Philippines. It was truly global, as were the so-called millennial bugs, the fear of which had by then dissipated, at a great expense.

The New Millennium

There had been much writing about the end of an old millennium and the beginning of a new since the 1960s, when a number of commentators, including self-styled 'futurologists', looked forward in their analyses and predictions to the year 2000. Yet ironically, perhaps, when it came – amid celebrations – there was less talk about the future than there had been in the 1960s and 1970s. It was the immediate present that loomed largest, and the year ended with fireworks and lavish displays of entertainment in the world's capital cities, the scale and impact of which claimed press headlines. There were fewer published balance sheets of social gains and losses than there had been at the end of the previous century. Relatively little attention was paid in most countries to a Millennial Summit held at the United Nations in New York in September 2000, and attended by 150 heads of state, when a number of millennial goals were set. Jonathan Sacks,

Britain's Chief Rabbi, who was present, noted that large crowds in downtown Manhattan had gathered not to watch political or religious leaders on their way to the United Nations building but to catch sight of celebrities gathered for the MTV Video Awards. The television corporation MTV dealt entirely in entertainment.

For American journalists, there in large numbers, the year 2000 was the year too of a presidential campaign and both they and politicians rated low when the election was over. For one journalist, Elizabeth Weise, the campaigners themselves were not yet ready for the Internet: the technology, itself open to criticism, was 'clunky'; the databases failed to cover crucial information, and the websites were 'tedious'.

In Britain the Millennium Dome erected in London's East End was a matter of continuing media controversy before and after the new millennium began, although the project had been backed by Conservative and Labour governments in turn. It attracted fewer visitors than had been anticipated, although those who bought tickets were impressed by the sophisticated acrobatic entertainment and the sections of the Dome devoted to education and transportation. The most lasting of a wide range of millennial projects, a large number of them local, was a chain of new underground stations between Westminster and Greenwich. The BBC had attempted to broaden the millennial agenda. It opened a BBC History 2000 website providing a guide to British history with audio and visual material including 3D models, run in conjunction with an ambitious oral history, the first time that this had been possible, *The Century Speaks*.

Religion played a less prominent part in the celebrations than it had done in the centennial celebrations of 1900; in the Dome, a 'spiritual zone', a noun derived from the Internet, one of fourteen zones, was difficult to finance. Nevertheless, during the years that immediately followed 2000 there was ample evidence in Britain and elsewhere both of the strength of religious 'fundamentalism,' Christian and Islamic, and of 'new age' spirituality. The Internet was widely used by supporters of both groups, as it was in 2003 and 2004 by Anglican supporters and opponents of gay priests and gay marriages. There were sharp and bitter regional divisions on this issue between Africa and the United States, with dissenting minorities, particularly in the latter. 'Globalization', now a buzz-word, did not imply either religious or cultural uniformities.

The main theme of the still prestigious British 1999 Reith Lectures *Runaway World* had been 'globalization', with more stress then on what unified than on what divided. The object of the lecturer, Anthony Giddens, then Director of the London School of Economics, was to 'initiate an electronic global conversation about globalization', which in his view was less explicable in terms of economics – integration – than 'political, technological and cultural' development. As he himself recognized, it was a subject not only for conversation, but also for debate. He had little to say himself about the role of the media in Europe, but there was as much media comment on 'globalization' as there was on the Eurocurrency, with little consensus either in Europe or in Third World countries.

In some parts of the world the lectures provoked not only a fundamentalist recoil or reassertion, a religious response with political ramifications, but also a wave of more general criticism in very diverse intellectual circles, where globalization was often identified with Americanization. In London, Michael Gove, reviewing recent Hollywood films that were as usual designed for a world market, many of them now endowed with impressive and expensive 'special effects' which could not have been achieved before, feared that to halt globalization might be 'mission impossible'. (That was the title of one of the best-directed and best-acted of recent Hollywood films.) Gove added that 'globalization might be inevitable but we don't have to like it'. 'Globalization may make it easier for peoples to encounter new cultures, but it makes the journey less worthwhile as individual cultures become more like each other.'

The desire to curb, if not to halt, globalization in order to protect national 'cultures', an object capable of being very broadly perceived, had played a big part in the politics – and even more in the rhetoric – of the media and of media politicians during the 1990s; and it continued to do so after the millennium. Canada, confronted with its powerful neighbour the United States, continued its previous policy of encouraging the development of Canadian media content that could 'compete with the best the world has to offer,' including cultural, entertainment and educational products. This was the pledge of the Canadian media administrator Paul Racine. He was speaking in Finland, another country with a powerful neighbour, Russia. Finland (see p. 235) had announced that its goal was to become 'the leading country' in the world of communications. Its other neighbours, former states of the Soviet Union, in 'reconstructing' national media systems after the collapse of communism, were not so ambitious, but were equally determined to assert their cultural identities. So, too, were countries outside Europe with a colonial heritage, notably Malaysia and neighbouring Singapore. Mohammed Maharthir, Malaysia's prime minister until 2004, emphasized 'Asian Values'; and in 1996 in Singapore the Singapore Broadcasting Authority required all Internet service providers to be registered and made subject to general media laws such as a Defamation Act, a Sedition Act, a Maintenance of Religious Harmony Act, and a new category, broadest of all categories, 'undesirable content'.

Attitudes towards globalization changed further between 2000 and 2004, but they remained enthusiastic, hostile or ambivalent according to place and to intellectual and social positioning. The Select Committee on Economic Affairs of Britain's House of Lords produced a report on the subject in 2003 which covered most of the relevant issues, ranging from law – Geoffrey Howe, a former foreign secretary, talked of the globalization of law – to technology. This was the first official report in Britain to be published (along with evidence submitted to it) on CD-Rom. The Chairman of the Committee, Lord Peston, a professional economist, noted how protests against globalization had brought together an 'extraordinary array of concerns', some of them 'mutually contradictory'. On the positive side, he quoted another like-minded economist – and there were many such – who claimed that all 'the success stories' in the recent history of economic development were countries that had 'got into the world economy'.

India and China were singled out by many speakers. Indians were now processing a flow of information and messages transferred there by European orga-

nizations, including banks and corporate businesses. China, which joined the World Trade Organization in 2001, had taken pains to introduce tighter regulations for controlling 'piracy', including piracy in software. Almost all the speakers focused on the activities of the World Bank and the International Monetary Fund as they confronted what one of them called 'shameful' world poverty. One argued that globalization 'effectively meant' communications: 'physical, electrical and electronic'. It was they that had produced 'an interchangeable world in which trade, culture, language and social advances became rapidly interchangeable'.

Peston himself quoted the American economist Joseph Stiglitz, who took a somewhat different line from most of the participants in the debate. In a newspaper review (*Financial Times*, 25 February 2004) of the report of a Commission on the Social Dimensions of Globalization, set up by the International Labour Organization in 2002, he noted that some of the Commission's 'messages', such as the need for restructuring debt, might have seemed controversial 'a short while ago', but they were now 'mainstream'. So was the agreement that the state had a part to play in 'cushioning' individuals and societies from 'the impact of rapid economic change'. His review was headed 'The Social Costs of Globalization'. An American newspaper headline put it succinctly: 'Globalization Just Is: Is It Just?'

9/11 and its Aftermath

Whatever was said about the advantages and costs of globalization in 2002, 2003 or 2004 or of the role of the media in explaining them, there was a general recognition that the planet had not been the same place since 11 September 2001 when suicide bombers in a terrifying attack had destroyed the great towers of the World Trade Centre in New York and on the same day part of the Pentagon buildings in Washington. 'Tragedy is history's pivot,' wrote Michael Wines, Moscow correspondent for the *New York Times*. For other journalists – and historians – this was the 'real' beginning of the new millennium.

There was a sense of world shock, not diminished by the fact that many other countries, including Britain, had experienced terrorist attacks long before. The American response, characteristically American, included the passing of the so-called 'Patriot Act', designed to 'unite and strengthen' America by 'providing appropriate tools to obstruct terrorism'. The tools included the authorization of intelligence wiretap orders that did not need to specify the place to be tapped or require that only the suspect's conversations could be 'eavesdropped upon'. Internationally a 'war on terrorism' was ordained, a war to mobilize 'hearts and minds'.

A coalition, led by the United States, was built up to wage war in Afghanistan, the remote country, recently invaded by and abandoned by the Soviet Union, where Osama Bin Laden, a Saudi-born terrorist, responsible for organizing an international terrorist network, al-Quaeda, had his headquarters. Bin Laden was not captured, but the Afghan war was won more quickly than the media or the public expected, and the Taliban regime overthrown. Extravagantly repressive, it had once built bonfires of television sets. Now, in the course of waging war, the United States and its allies bombed Taliban radio transmitters.

There were so many complexities in the Afghan situation, however, that it was difficult to broadcast reliable information during and after the war, not least about Bin Laden. He was to appear again on world television, care of the Arab television station, al-Jazeera, towards the end of the American presidential election of 2004, threatening continued terrorist action. Afghan elections were then on the agenda. Little was known about Bin Laden in 2001, except that he had once been backed by the United States when he was rebelling against the Soviet Union. During the successful war of 2001 all the information about the Afghans came from the geographical periphery, some of it collected by women reporters. Women had been among the main victims of the Taliban, which had also banned the Internet. Much of the information, then and earlier and later, was propaganda. It was difficult to draw a line between the two. There were no illuminating photographs. Images had to be cobbled together.

In 2003 the second military response of the United States to terrorism, war in Iraq against Saddam Hussein, with more troops but with fewer allies, had sharply divided public opinion, at first more in Britain, the Americans' closest ally, than in the United States. Within the United Nations, which had imposed sanctions on Saddam, France and Germany refused support to President George W. Bush and Prime Minister Tony Blair in what was from the start a controversial venture, opposed by both Russia, which had its own problems of terrorism, and China. It was a far more controversial venture than an earlier American-led attack on Saddam, the first Gulf War, after his invasion of Kuwait in 1991. This stopped short of the overthrow of Saddam (on the first President Bush's orders, which took account of the views of Saudi Arabia on which the United States depended for oil).

The American sense in 2003 and 2004 that their country had not retained the support of 'world opinion' that had been almost unanimously in their favour in September 2001 was evident in Iraq itself, where attempts were being made by a nominated government to hold elections, and in the US presidential election of 2004, where both candidates were aware of it. Bush took advantage of his experience as a leader in the battle against terrorism. In Iraq, however, there was no experience of democracy, and terror attacks were regular items in the news before and after the elections that took place in January 2005. In Michael Moore's anti-Bush film, *Fahrenheit 9/11*, based on 9/11, which was a winner at the Cannes Film Festival, where the European left was well represented, fact and fiction mingled in a way that showed that Bush faced some of his most hostile opponents inside the United States itself. A question posed by Congressman Harry Hyde in 2003 had not lost its relevance. How could it be that 'the country that invented Hollywood and Madison Avenue has so much trouble promoting a positive image of itself overseas'?

The controversy in 2004 both in the United States and in Britain pivoted on one central issue, although there were many sub-themes, like the role of the United Nations. Had the decision in 2003 to destroy Saddam Hussein, which was justified officially in the light of military intelligence, been a wise or a just

one? Had there been an adequate case for war? Bush and Blair were in no doubt. Both of them, too, refused to see the war against terrorism as a war between 'the Christian world' and an Islamic *jihad*. Substantial sections of Islamic opinion throughout the world saw it in that way.

There was a media dimension – a war of words – to the argument in Britain, in particular, at every stage of the conflict and its aftermath, with the government submitting the BBC in particular to a barrage of criticisms but with none of the media taking the blatantly propagandist line of some of the American press and television companies, notably Fox News, controlled by Rupert Murdoch, which showed the American flag flying on the corner of the screen and played martial music as American troops advanced. By contrast, in Britain critics of the BBC, some of whom had totally different grounds for criticism, accused it of taking an anti-war stance even before the claim was made on air that Downing Street had 'sexed up' a dossier suggesting that Saddam could use 'weapons of mass destruction,' which it was believed he then held, within 45 minutes.

No weapons of mass destruction were ever discovered in Iraq after Saddam's fall, but Andrew Gilligan, the journalist responsible for making the claim, followed journalistic practice in consistently refusing to disclose the source for his claims, Dr David Kelly, a weapons inspector, not a member of the intelligence community, whose name had been leaked from within the Ministry of Defence. Hounded by the press, Kelly committed suicide, a personal tragedy which made it necessary for the government to appoint a committee, presided over by a senior judge, Lord Hutton, to investigate not the accuracy of the intelligence information but the circumstances of Kelly's death. Before Hutton's report appeared, sharply criticizing the BBC, most of the newspaper media – and the BBC itself – seem to have expected it to concentrate on the activities of government and of Alastair Campbell, Blair's highly political director of communications, not a civil servant, who had been responsible for a barrage of e-mail criticisms sent to Broadcasting House.

The Report did not do so. Press journalists, who had harassed Kelly, might have been more sharply criticized in a report that concentrated on the BBC, which had been reluctant at first to apologize for Gilligan – and its self-confident Director of News since 2001, Richard Sambrook, responsible for 2,000 BBC journalists throughout the world. The Corporation was hit so hard that its Chairman, Gavyn Davies, resigned and its Governors went on to accept the resignation of its pugnacious Director-General, Greg Dyke, who had moved over to the BBC from commercial television when Birt retired in 1999. Speaking in a House of Lords debate on the Hutton Report after Dyke had left the BBC, Birt, who had himself moved to the BBC from commercial television and was now an adviser on transport to Blair, asserted that the BBC had been damaged most in 2003 by 'its failure to respond properly after the [Gilligan] story was broadcast.' There were other speakers in the debate who agreed with Birt, but strong support was expressed for the continued existence of the BBC, 'warts and all,' which was hailed by one speaker as 'an international jewel in the crown.' Its staff supported Dyke.

Even stronger support was offered in April 2004 in a House of Lords debate on the BBC's Charter, which was due for renewal in 2007. Many of the same speakers took part who had spoken during the debate on the Hutton Committee, one

of whom, Lord Sheldon, observed that 'when one looks at the inaccuracies of Fleet Street journalism, one is impressed by the standards of the BBC which has the highest standards of all the media.' Nevertheless, the matter was not closed and a further inquiry was held under the chairmanship of Lord Butler, former Head of the Civil Service. In January 2005 a government panel headed by a Labour peer, Lord Burns, a former civil servant, claimed that the BBC system whereby the Governors acted as both regulators and champions of the BBC was 'unsustainable.'

Public Service Broadcasting in a Changing Political and Technological Context

Burns made his claim in a letter to Tessa Jowell, Secretary of State, Department for Culture, Media and Sport, a new designation for a department which under Blair now had a wide remit. She had confirmed earlier that the Hutton debate would not influence the government's decisions on BBC Charter renewal. The process had already begun, with the BBC, she affirmed, holding a 'special place in the heart of the nation'. She had instituted a research inquiry in December 2003 to discover what people did and did not like about the BBC. By 31 March 2004 more than 5,000 written responses had been received and 25,000 people had visited a Charter Review website. Not everyone – but certainly a large majority, 75 per cent – had good things to say about the BBC. 'Lack of advertising' was placed in the top three qualities of the BBC that were most praised: it came after 'high-quality programmes' and 'high-quality news programmes'.

That, if true, was not necessarily true of public service broadcasting institutions in most countries, most of which, with a less established institutional identity – and fewer funds at their disposal – went through a crisis in the years between 2000 and 2004. Moreover, with a sizeable proportion of its funds not derived from licence fees, the BBC itself was proposing to cut 2,900 of its staff in December 2004. Few other public broadcasting organizations had as strong a sense of their global role as the BBC, some of them, indeed, had managers who did not think in global terms. The BBC's radio World Service, however, had long established its reputation, not least in Arab countries, and its television service was capable wherever it could be received of confronting CNN or any other global rival. A communiqué of May 2004 referred to its expression of 'British values of openness, fairness [and] diversity of view'. It built bridges 'in an insecure world.'

Particular attention was paid to Islam. In Iraq itself, where Sunni and Shiite passions had now been unleashed, audience research in June 2004 suggested that more than a fifth of the adult population (3.2 million people) were listening to the Arabic Service at least once a week. A further 1 per cent were listening to the World Service's English language programming, although it was only available in two cities on FM and elsewhere only on short wave. The achievement was recognized abroad, even in the United States, where a brightly written and researched number of *Time* magazine concentrating on the BBC (13 October 2003) showed on its cover a BBC microphone and a title 'The Beeb Takes on the World.'

As far as domestic broadcasting was concerned – and *Time* was concerned with that too – three issues were raised repeatedly in the many discussions of the future of public service broadcasting that took place both informally and in organized forums, many of the latter part of the Charter renewal process. They were programme content, institutional management and governance, and finance.

On the first of these, which necessarily raised the question of the quality of other providers' output, there was wide consensus: there had been 'dumbing down' in BBC entertainment programmes despite some brilliant new 'sitcoms' such as *The Office*. Channel 4, which celebrated its twenty-second anniversary in 2004, was equally subject to criticism. One of the main supporters of a fourth channel from before its inception, Anthony Smith, complained in 2004 not so much of 'tasteless' programmes – and there were many of these – but of the lack of genuinely 'innovatory' programmes, like Film Four, which Channel 4 had abandoned.

One new category of entertainment programme was particularly under attack whoever produced them – so-called 'reality TV' shows such as *Castaway 2000*, *Big Brother* and *I'm a Celebrity, Get Me Out of Here*, which exploited melodramatic settings, and which critics considered morally repugnant. Yet they attracted huge audiences, and the revelations (edited exposures) of the people taking part in them, some of whom were said to have been left emotionally distressed, fascinated psychologists. The programmes gave a new connotation to the word 'reality' at a time when 'virtual reality', once so creatively explored, was losing out.

Whether the BBC could set standards in entertainment was a matter of argument, although the Voice of the Listener and Viewer, a voluntary organization, celebrating its own twenty-first anniversary in 2004, believed that it must. It focused, however, not only on standard setting by public service broadcasters in face of commercial competition, much of it from abroad, but also on enlightened and imaginative management and governance. Strongly supporting the system of radio and television finance by licence fee for the BBC, deemed to be a basic feature of British broadcasting both in opinion polls and in parliamentary debate, it noted with concern that there were individuals and groups not so much querying its level as advocating its abolition or gradual withdrawal and replacement by advertising or more usually by pay television. A report for the Broadcasting Policy Group of the Conservative Party in 2003 recommended the latter, with the support of economist Alan Peacock, who had first pointed in this direction almost twenty years earlier in 1986. A compulsory subscription rate would cover core BBC public service radio and television channels, but access to other channels would have to be paid for separately.

By 2003 BBC finance had come to depend increasingly on commercial revenues. BBC Worldwide ran a cluster of consumer businesses on both sides of the Atlantic. BBC Ventures carried out tasks on contract to non-BBC organizations, and published books, magazines, videos and multimedia products. It also sold sports series to mobile phone users. All organizations demand a 'critical mass' to be effective, and BBC Worldwide and BBC Ventures and their subsidiaries were soon large enough to challenge bigger organizations than themselves and above all to penetrate difficult markets. For example, a new advertising-funded general entertainment television channel – BBC Japan, within the orbit of BBC Worldwide – was announced in October 2004 to start broadcasting later in the year. It was the second BBC channel available there. BBC World was already available in more than a million and a half homes. A similar general entertainment channel, BBC Prime, was on offer in Europe, India, the Middle East and Africa.

Together, the two main commercial 'arms' of the BBC, carefully kept separate from other BBC operations, employed more than 5,000 people, dependent for their success or failure on competitive media markets. Their revenues in 2002 were 35 per cent higher than in 2000. Meanwhile, competing interests claimed that several of the operations from which they derived their profits should not be carried out by the BBC at all. They also protested against the BBC's online presence and the power of what had proved to be Europe's most attractive website.

In all countries with public service broadcasting as part of their multimedia systems there were similar criticisms in the first decade of the new millennium. The public service institutions, it was argued, were going beyond their mandate and in the process distorting unsubsidized competition. Their role should be restricted to providing a universal service in the public interest. Yet such a restriction implied keeping public service institutions locked in a time warp, unable to adapt to new technologies or to convert public service into public enterprise. Commercial pressures in some countries succeeded in enforcing their own economic and political philosophy. Thus, in the spring of 2002 in Portugal it was announced that public service television (RTP) would be left with only one channel and that a new 'civic' channel, run by a consortium of partners, would have access to RTP's production facilities; and in the same year Spain announced proposals to privatize the news department of Channel 9 in Valencia. In the following year the Netherlands cut the budget of its public service broadcasting and Denmark planned to privatize TV2.

The fate of underfinanced PBS in the United States, which also faced political problems, offered a warning rather than a model to public service broadcasters elsewhere, and from quite a different direction in Western Europe the determination of the European Union to widen competition disturbed some public service broadcasting institutions. So did judgements in a number of communication law cases brought before the European Court, not all of which, however, went in favour of new commercial entrants.

In most Western European countries and in some countries outside, including some in Asia, there were now national regulators, like Ofcom in Britain, CSA in France, RegTP in Germany and ASCOM in Italy, with both licensing and coordinating functions, including oversight – or more – of the whole 'communications sector'. There was little significant Ofcom pressure in Britain in 2004 to limit the BBC's independence, and Ofcom's Chairman went out of his way to praise it. Nevertheless, the first annual report of Ofcom, covering the period from its inception, revealed the wide range of its preoccupations and responsibilities, including organizing spectrum sharing, bought and distributed through licences, 'protecting audiences' and the public, promoting greater competition in broadcasting, telecoms and in spectrum allocation, and providing 'enforcement' and 'monitoring'. This was a wide enough remit to keep Ofcom far busier

than its predecessor with limited powers, Oftel, which had taken shape within the Department of Trade and Communications, the name of which had itself changed in 1982. It also absorbed other bodies, such as the Broadcasting Complaints Commission.

Whatever the problems of public service broadcasting institutions in the new millennium, corporate businesses within the communications sector had ample problems of their own in all countries. The businesses were larger, however, than most of the non-profit-making institutions, and those that were global in scale were placed high in Forbes's invaluable annual list of the world's top 2,000 companies. Microsoft came second in 2002, IBM ninth, Vodafone twelfth, Intel thirteenth, and Cisco Systems eighteenth. Conglomerates like Pearson (operating from Britain) and Bertelsmann (operating from Germany) were large enough to shift strategies, dispensing with as well as adding to their constituents, with Bertelsmann buying in 2000 the American online music retailer CDNow, and in 2001 teaming up with RealNetworks Inc. to create MusicNet to license music technology to other online music services.

The chief executive officers were written about (and gossiped about) at length in the business pages of the press, some switching from one large organization to another, a few disappearing from view. Among the former in Britain was Dawn Airey whose move from Channel 5 to BSkyB in September 2002 was hailed as a 'coup'. She had been widely expected to move to ITV, most of which was owned by Granada and Carlton, whose merger in 2002 led to the ousting of Michael Green as Chairman. The power behind Channel 5 was Gerhard Zeller, an Austrian, little known in Britain, although as CEO of the sizeable European RTL group he had ambitions to acquire a stake in Channel 4. On a world scale Michael Eisner, the man who ran Disney – and had earlier revitalized it – was often under the spotlight on both sides of the Atlantic, largely because of the pushing out of his erstwhile friend, Michael Ovitz, from the presidency in 1996 after only fourteen months. Contrasts in 'corporate cultures' were blamed. And there was an element of the absurd in the story.

A few young entrepreneurs were capable of receiving celebrity attention even when there were no corporate cultures to praise or blame. The two most publicized of them in August 2004 were Sergey Brin and Larry Page, 'whizz kid' founders (in a San Francisco garage) of an Internet service, Google, in 1998. Brin was then 24 and Page 25. The reason for the publicity in 2004 was that their company had just embarked on a public flotation through an unconventional auction and that they had introduced themselves to the public through an article in *Playboy*. Comparisons were drawn with their youthful and only slightly older rivals, Jerry Yang and David Filo, who had founded Yahoo! in 1994, but there seems to have been no reference in the European press to the fact that Eric Schmidt had moved over from Novell (see p. 100) in 2000.

Youth was the theme, too, in a British *Sunday Times* 'Tech Track' supplement of October 2004 giving details of a hundred of Britain's fastest growing technology companies, headed by Cambridge Broadband, which attracted from a laboratory with ties to Cambridge University an international panel of investors. China was one of the targeted markets. All hundred companies had their own financial as well as technological histories, yet one of the few articles in the sup-
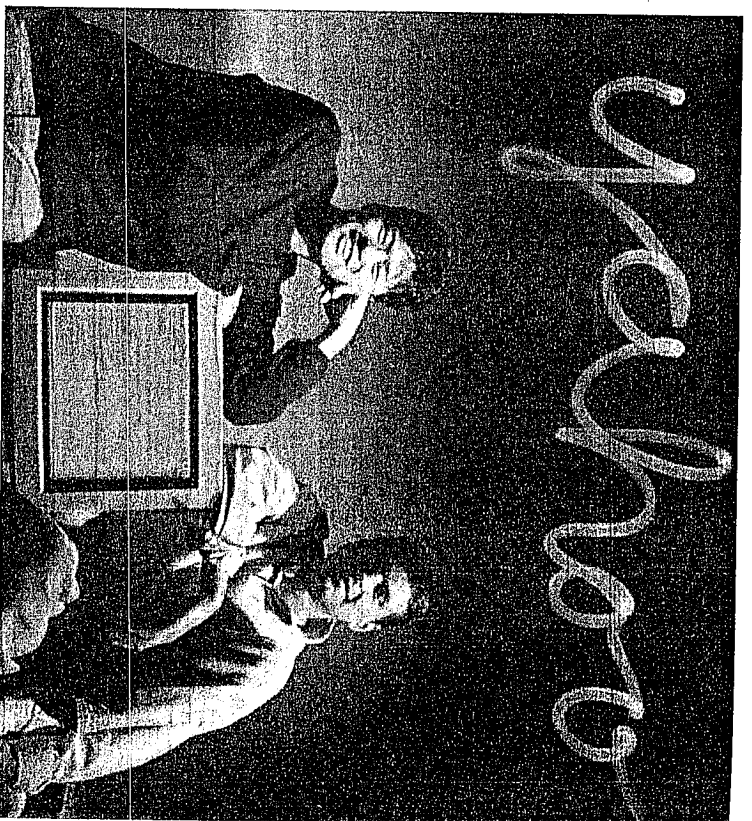

Fig. 29 The founders of Yahoo!, the Internet search engine, Jerry Yang and David Filo were typically young Internet pioneers. Without the ability to search, an expanding Internet would lose its power. In 2001, their main rivals were the young pioneers of Google, Sergey Brin and Larry Page, who carried out an imaginative public flotation in 2004.

plement was written by an executive of Microsoft, Natalie Ayres, who urged British innovators to join 'the US software giant's partnership programme'.

Google and Yahoo! were search engines, assisting web-surfing on the Internet – Google was said to have been inspired by the computer on the television programme *Star Trek* which could answer (almost) any question; but the Internet was now so taken for granted that less popular attention was paid in the press to search techniques than to advertising revenues, the timetable for creating a digital society and the changing technology of mobile communications. Thus, when Tessa Jowell instituted her inquiry into what people did or did not like about the BBC, she asked a second question: what did they think about its role in 'the multi-channel digital [she did not add multimedia] age'.

There was, in fact, less public interest in digitalization in Britain than the government hoped for, although it was a governmental and BBC priority. In his last address to BBC staff in 1999 Birt had made 'the digital revolution' one of his main topics. Digital technology, he explained, had not one but many characteristics.

It would 'move us from the world of scarcity', 'enable us to call up programmes and services on demand at a moment of our choosing', and offer interactivity. Moreover, it would increase access, and publishers would multiply. None of this was new, but it was left to Ofcom in September 2004, to announce that the switchover from analogue could begin in 2007, setting out details of ITV and Channels 4 and 5 licences before the government set a firm date.

Birt's successor as Director-General of the BBC, Dyke, had taken up the same cause months earlier. *The Times* in December 2003 wrote of his being willing 'to pour millions' into completing a national transmitter system that would bring digital radio and television to the entire UK population. Its continued unavailability in certain areas had created a sense of frustration, even of disillusionment. Dyke argued in an Edinburgh Television Festival Lecture in 2003 that in a multi-channel world of fragmenting audiences the BBC would be more important, not less.

A list of 'risks' and 'dangers', which Birt had incorporated in his own lecture, was as pertinent in 2003 and 2004 as it had been in 2000, and they were spelt out again in a very different context at a World Summit on the Information Society held at Geneva in December 2003. The language of those speakers who concentrated on the dangers – and said little about the advantages – of digitization or, indeed, globalization, had not changed much since UNESCO debates thirty years before; and in an article in *Intermedia* (April 2004) Guy Gough Berger, Head of the Department of Journalism and Media Studies at Rhodes University in South Africa, with the title 'Interrogate the Information Society', could still ask the question 'Is the "Information Society" something we already see and know or something yet to be decided and determined?', wisely adding a subsidiary question, 'Could it be both things simultaneously – something here and now and something still to be?' Unconsciously, it echoed William Gibson's comment, not original, that the future is already here.

Berger made no reference to mobile communications, yet it was in this branch – and it was far more than a branch – of media development that there had been significant expansion between 2000 and 2004 in the developing world as well as in Europe and the United States, even when economic conditions were unfavourable. In 2000 there were five million mobile phones in the United Kingdom; in 2004 there were nearly fifty million. Their modes of use remained controversial. So, too, did the concomitant increase in mobile phone masts. (This provoked the formation of a new pressure group, Mast Sanity (www.mastsanity.org) which focused on contentious health hazards.)

There was continuing uncertainty about the future of third- and fourth-generation mobile phones, whose operators needed governmental licences. The likely demand for cellular mobile phones that in combination could incorporate multimedia features such as digital cameras (and there was certainly an increasing demand on their own for these), digital music players and hand-held devices for playing games (another still expanding market between 2000 and 2004) was difficult to calculate. Nevertheless, competition in producing cellular mobile phones was sharp, with Philips, Ericsson, Sony and Nokia among the manufacturers offering marketing deals. Vodafone too was seldom out of the advertisement pages – or the news. Arun Sarin, who took over as CEO in July 2002, laid all

the stress on implementation. Having failed in a bid to acquire the wireless division of AT&T, he did not abandon his hope of turning Vodafone into a generic name for mobile communications, a global counterpart to Coca Cola and Kleenex. He knew well, as did his competitors, that there was no shortage of 'hype', but there were different patterns of demand, as there were of licensing arrangements, in different countries.

There was, however, one factor in common – speed: 3Gs had a far greater capacity to send and receive data at high speeds. South Korea and Japan were leaders in the process of change both in manufacturing and distributing, evidence that the North East Asian economy, which had suffered during the economic turmoils of the 1990s, had recovered. The 'South-East Asian economy, however, was dramatically unbalanced by the 'tsunami' of December 2004, the earthquake under the sea which carried giant waves as far as Somalia in Africa. The aid of technology was to be invoked in the future, but when the waves struck, the horror of the present revealed the limits of communication in an age when entertainment counted for more than information and an ugly new word 'edutainment' had been coined. Only disaster on an unprecedented scale could influence priorities. Meanwhile, the choice of underlying technologies was still a matter of disagreement. Not everyone sounded optimistic about broadband use or the creation of a 'new' satellite wireless world (Sirius and XM), and in 2004 Intel warned that the Internet could no longer cope with the huge volume of traffic passing through it, including 'spam'. This consisted of unsolicited messages which were said to account for four-fifths of e-mail. In September 2004, Vint Cerf, sometimes described as the father of the Internet, told a San Francisco audience that the world was still in the stone age as far as networking was concerned. It was a metaphor that Gutenberg would never have used.

Envoi

It has been rare for pioneers of new media to concern themselves with long-term perspectives. Historians more than futurologists must now supply it. There were some curious historical twists to the short period covered in this last chapter. In 2002 Winston Churchill stormed US television awards in the aftermath of 9/11 when the British actor Albert Finney won the Best Actor Award for his impeccable and deeply moving portrayal of Churchill in *The Gathering Storm*. In the autumn of 2004 a German film about Hitler, *Der Untergang*, was on display in Berlin, the first German film focused on him since 1945 and the first to treat him as a human being. At the same time German television presented a documentary on the making of the film to underline its national importance. In a changing global context Churchill and Hitler now stand out differently from the way that they did at the time. So, too, do Stalin and Franklin D. Roosevelt.

So do old films. Yet Metro Goldwyn Mayer's sales of old films, introduced by the snarling lion, a cinema icon, increased nearly three times between 2001 and 2004 when Sony set about acquiring them in face of initial competition from America's Time Warner. MGM's DVD sales of old films had increased nearly three times since 2001. The films included *Ben Hur*, *The Wizard of Oz*, *Dr Zhivago*, *The Pink Panther*, *West Side Story* and the James Bond films, a twentieth-century

constellation. In 1989, when Sony had acquired Columbia Pictures and the Loews cinema chain, the event had been compared to Pearl Harbor. Now Pearl Harbor was ancient history.

There was another event in 2004 with ancient echoes – the Athens Olympics, 'Olympian Olympics', globally reported and televised in the United States alone on seven different networks. They evoked not only 1896, the first of the modern Olympics, but also the ancient Olympics, about which several new books were now written. Recent history was turned aside as China, chosen to host the next Olympics (2008), rose high in the medals table. Sport, with its own records and its own codes, must now figure prominently in any long-term account of global media history – economic, political or even diplomatic. And in multimedia circumstances it is now figuring more prominently in television and the press than in film or in the Internet. The psychology is fascinating. The *Financial Times* in September 2004 headed its weekend supplement 'The year sport became an obsession'. 'It used to be a distraction from war and politics', Simon Kruger observed, but 'after a summer in which the Olympics, Euro 2004 and Wimbledon grabbed the attention of huge television audiences it is more difficult to distract us from sport.'

The word 'historic' is now used more in relation to sporting events than to economic, political or diplomatic issues, for on the latter the media concentrate on the day (today and tomorrow) and on the week, often suggesting what will happen next rather than reporting what has happened. Much is ephemeral. The authors of this book, living in a society and a culture with a long history, cannot treat time as the media do, and they will leave it to their readers, as was stated in the Introduction, to prepare their own chronologies and frame their own judgements. For the future there is no set agenda.

Chronology

c.5000 BCE	Invention of writing
c.2000 BCE	Invention of the alphabet
c.764	Earliest known example of woodblock printing (Japan)
868	First known printed book (China)
c.1040	Invention of movable type (China)
c.1390	First pictorial woodcuts
1390	First Renaissance medal
1403	Movable type cast in bronze in Korea
c.1456	Gutenberg prints Bible
1460	Antwerp Bourse founded
1467	First press established in Rome
1468	First press established in Paris
1476	First press established at Westminster
1492	Columbus lands in America
1492	Oldest surviving globe (Behaim)
c.1500	First etchings
1506	First printed map to include information about America
1517	Luther's 95 theses printed
1522	Luther, *New Testament*
1525	Twelve Articles of German peasants printed
1526	Tyndale, *New Testament*, published (in Worms)
1529	Luther, *Small Catechism*
1534	'Affair of the Placards' in France
1544	First *Index of Prohibited Books* published in Paris
1554	London Exchange founded
1557	Charter granted to Stationers' Company of London
1562–94	Religious wars in France
1563	First printed timetable of postal service in Habsburg Empire
1564	First general *Index of Prohibited Books*
1564	First press established in Moscow
1566	Iconoclasm in France and the Netherlands
1568–1648	Eighty Years War between Spain and the Netherlands
1570	Ortelius, *Theatrum Orbis Terrarum*
1576	First London theatre
1579–94	'Kralice Bible' published, Bohemia
1585	Teatro Olimpico opened at Vicenza
1594	First opera performed in Florence
1598	Globe Theatre, London