

MISUNDERSTANDING MEDIA

Brian Winston

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MISUNDERSTANDING MEDIA

BRIAN WINSTON

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Volume 4

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MEDIA

Brian Winston



Routledge & Kegan Paul
London and New York

For all my beloved necessities!

Adele, 'cool' Jessica and this book's coeval, Matthew

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I cannot think when I first became disenchanted with gadgets – in my head that is, for my heart still leaps at every new electronic toy. The disenchantment must have arisen from my general failure to make things go as a child, a sense that automobiles ceased to function at my gaze and, most of all, my conviction – nurtured by bitter experience in live television production – that cameras and all other machines were just as likely to break as to work. Anyway, for whatever reason, some 15 years ago – before the ‘information revolution’ had really got underway – I was already vaguely upset with the concept. It was not, however, my ineptness with machinery alone that set me on this negative path. The structure of what follows is in embryonic form in a book I published at that time,* during the research for which I first began to glimpse a pattern to the history of media technologies. It was this combination of an historical overview coupled with a certain wariness about modern electrical wonders that constitutes the genesis of this essay. The unformed insight, which I got at that time, into the nature of technologies – how they are *invented* and how diffused – came to be more and more important to me.

During my life I have heard the threat or promise of technological upheaval constantly touted but, despite the fact that I work in a high-tech industry supposedly at the cutting edge of many of these developments, I have not really experienced any technologically based disruption of my professional work. Instead, all I see is evolution and the ways in which various forces operate to contain change so that one can live with it. For instance, 23 years ago when I joined the broadcasting industry, videotape was already nearly a decade old, yet here am I in the mid-1980s still happily working with film and teaching others to do the same. This is not to say that film might not give way to tape – even, that it will inevitably do so; rather it is to point out that this changeover is taking all my working life to occur. Between talk of revolution, increasingly insistent in the last decade, and the everyday

* *Dangling Conversations*, vol. II – *Hardware, Software* (Davis-Poynter, 1974).

reality of the slowly evolving world of work was a gap which vividly impressed itself on me.

It seemed to me that a crucial factor contributing to the false picture of rapid change was a certain failure of vision, of knowledge of those events in technological history which I thought might indicate contrary non-'revolutionary' interpretations of the present situation. Even within my trade, never mind beyond its closely guarded mysterium, people know little of the history of the machines with which they daily labour and most times could not care less.

By the early 1980s, I wanted to recover this technological history and, more, to put historical accounts of technologies, normally kept apart, together – not least because that is what we are told is happening: the technologies are coming together. And as I did this work I became aware that the pattern I had earlier detected indeed held for the development of each of the central technologies of the so-called 'information revolution' and that the historical record supported my work experience (that change was slow) rather than the rhetoric of the day (that there was a revolution under way).

This book is then a challenge to that dominant rhetoric, the rhetoric of technological revolution, especially in the field of information processing.

In the nature of the case, I have had liberally to garner the flowers of others. Although the history of technology is an under-tilled corner, which I would argue is significant given the centrality of technology in our lives, yet some toil there and I am – as is quite obvious from what follows – most mightily in their debt.

I have learned much about American broadcasting from my colleagues in the Cinema Studies Department of New York University, most notably William Boddy, Michelle Hilmes and Aaron Nmuwgen whose doctoral researches have influenced my understanding in ways that cannot be adequately footnoted. Bill Boddy was kind enough to read the manuscript for me and I am therefore doubly in his debt.

To the members of my seminar group on technology and ideology, especially Svein Bergum and Jimmy Weaver, I am equally grateful. To my colleagues and friends Martin Elton and Mitchell Moss I am most indebted for careful advice, early sight of papers, supply of references and corrections. Indeed the Interactive Telecommunications Programme at NYU, whence come all these last, has given me repeated opportunities to test ideas in the forum of open debate.

More friends were of crucial assistance. Daniel Zwanziger kindly cast an eye over my science and if it is still wanting it is no fault of his. Bernard Abramson gave me the benefit of a computer professional's insight and a most thoughtful critique of the central ideas of the book. Bertell Olhman and Patrick Watson took on the deficiencies of the book's end as did Ted Conant those of its opening.

And I am indebted to others for various references, hints and leads, among them Robert Horwitz and Herb Schiller of the University of California, San Diego; Janet Staeger of my department, Michael Wreen of Marquette University, Steve Scheuer and Nick Hart-Williams. Wayne Baden guided me into the strange thickets of American law. He and Frederick Houston also suffered long hours as AMTRAK commuters doomed to listen to the results of my research and my arguments. In fact so much of this book was researched, corrected and discussed between Rhinecliff and Grand Central on AMTRAK's Hudson Valley line that I also need to thank the conductors and staff of those trains, especially 'Mo' Fink.

In the spot once reserved in acknowledgements for the professional typist, I would like to thank the Computer Shop, Kingston, New York, the suppliers and maintainers of my word processor – Tim Klepeis, who sold it to me, Lillie Rothe who kept me in supplies, and Clem Haneke who made sure the machine always worked. (Lest the disappearance of the manuscript typist seem to contradict my above remarks, I refer the reader to chapters 3 and 4 below in which are detailed the events of all those decades when we could have had word processors but didn't.) (And I would also note that the Computer Shop went out of business while this manuscript was in press.)

The book could not have been written without the help of Lynne Jackson. Her furnishing of material, references and ideas affected the whole underlying structure of the work. Her ability to grapple with the NYU Library computer, which far exceeds my own, was a most necessary skill and her overview of the text contributed enormously to whatever readability it might have.

To Peter Hopkins, as ever, goes the responsibility of onlie begetter and lastly, but of course not least, to my wife go my usual thanks for pedantic wretchedness. Any infelicities of style are not for her want of care.

Brian Winston
Marbletown, New York
January 1986

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INTRODUCTION

The once and future of telecommunications technologies

This book will attempt to demonstrate why there is little or no reason to join the epithet 'revolution' to the epithet 'information'. This purpose is perhaps best symbolised by the fact that although every word on this page has been in the clutches of various computers, from my personal word processor to the publisher's more elaborate devices, what you hold in your hands is a user-friendly, portable, randomly accessible retrieval device half a millennium old and of a design elegance unmatched by any of the vaunted machines of the 'information revolution' – a book.

The persistence of books, and the ironies of books about the 'information revolution', are too glibly ignored. This glibness can be attributed to a general lack of historical sense, for the 'information revolution' exists only as a consequence of far-reaching misunderstandings about electronic media, their development, diffusion and present forms. This book will be exactly concerned with these matters; and it will be a central thesis that the history of the technologies of information reveals a gradual, uncataclysmic progress. No telecommunications technology of itself or in aggregate suggests revolutionary development. On the contrary, each of them can be seen as a technological response to certain social relations which, at least in the West, have remained basically unchanged during the entire industrial period; the technology, far from being a disruptive force, actually reflects the comparative stasis of these relations.

The devices in question range from the telegraph, and its immediate non-electronic predecessors, to holography. Included are computers – macro, micro, personal and pocket – cameras, xerography, telephones and videophones, satellites and videotape, radio and other electromagnetic/photokinetic distribution systems including fibre optics, Polaroid, photographic printing processes (and the developments in the press that preceded them) and, above all, television – in short, the range of machines which, it is now claimed, has reached

such a critical mass that not only are deep, radical alterations in our society being effected but even our very sensoria are changed under the impact, to make us new women and men.

Received opinion is that a combination of developments has brought us to this revolutionary point. The by-now-ancient telephone wire has had its capacity increased to accommodate the most complex of electrical signals, those encoding visual information, in great numbers. The communications satellite has created an elegant worldwide method of communication, equally capable of carrying 'broadband' audiovisual signals. The computer has rendered vast amounts of information accessible in wholly new ways. And finally, various other methods of duplication and storage have been developed to allow us to copy instantly visual and audiovisual messages into a number of media. Joining the computer to the telephone and both to satellites creates a McLuhanesque patchwork of electronic nerves stretching down into every last household, linking them together into the global village. And our window on to the village square is the television cathode ray tube.

Such noise and hubbub have the proponents of this 'revolution' made that alternative readings are all but drowned out. However, it is my contention that far from a revolution we have business, and I mean business, as usual. All of the following could be just as viable a set of predictions as those promising revolutionary 'world boxes', 'wired cities', 'electronic cottages' and all sorts of 'future shocks'.

- Entertainment-led cable television, that is cable systems relying on traditional television broadcasting forms, will have discernible effects only in situations where free-air broadcasting widely delivers poor signals (as in the USA) or where the population at large prefers signals originating in a neighbouring nation to its own (as in Canada).
- The free transnational propagation of audiovisual signals elsewhere will be contained by both governmental action and public (non) response.
- Entertainment channels, whether delivered by cable or by other means, will probably never exceed one dozen – as the slow process of shakeout in the United States is revealing.
- Videocassette recorders are *the* crucial device to expand entertainment television. They will have the most significant effect on all current and proposed systems for the mass distribution of audiovisual signals, including cable.
- All new means of distribution and expansion of service will not produce new content for television. (Expanding television to include replications of bourgeois 'high culture' in societies where such coverage has hitherto not been much seen does not, self-evidently,

create new content.) A more varied range of distribution systems (including the 'bicycling' of videocassettes) will exist without national audiovisual establishments being essentially changed.

- Subteens may, for a time, give up dancing together and substitute the watching of videos for audiorecords. This, in effect a dance (or rather non-dance) style, will pass as all such do. Music videos will develop via an increasing reliance on narrative forms.
- Flat screen, component television will replace current receivers. Big screen projection television will not – unless accompanied by the wholesale remodelling of the housing stock to make bigger rooms. People will not walk about watching personal TV screens either, for fear of bumping into each other or getting run over.
- Videotext devices, whether two-way interactive or not, will never replace print except in very limited situations.
- Interactive services will be provided, in so far as they are required, by updating the basic telephone to broadband capacity using waveguides and fibre-optic technologies, rather than by the laying down of alternative national systems. Containing the power of the telephone company over these expanded services will pose a major problem.
- Narrowband interactive services (burglar and fire alarms, metering, etc.) will be provided, in so far as they are needed, by this updating rather than by entertainment-led cable television systems. The telephone will gain in intelligence and scope. It will never become a 'videophone'.
- Interactive television uses will not include shopping (except perhaps of a limited mail-order type), schooling, political decision-making by the entire electorate or by any substantial proportion thereof or any other 'global village' use. In fact, interactive television will meld into the intelligent telephone.
- Videodisk, except for laser-based systems which will be used only in training or archival situations (and might therefore be uneconomic of themselves), are doomed to oblivion – and are already well on their way there.
- Videodisks masquerading as audiorecordings will offer the recording industry its only hope of destroying the public's ability inexpensively to copy their product.
- Light-sensitive polymers will render nitrate-based film stocks obsolete but, except for still photography processes, will fail to compete with electronics. Thus videocameras will replace 8mm film cameras as the primary tool of personalised audiovisual image creation. Home videos will be as important (and unimportant) as home movies are.
- Professional film use will inexorably be replaced by electronic systems except at the final stage of theatrical print preparation.

Cinemas will, like theatres, opera houses and concert halls, survive.

- The personal computer will be an essential of the academy and businesses however small. It will also find a variety of professional uses. But the basic structure and functions of the academy, business and the professions will remain unaltered.
- Home computing will prove to be a fad – albeit a widespread and probably quite persistent one – like railroad modelling or philately. The central thrust of home computing will continue to be games and this play will constitute the dominant fad within the fad, although in more affluent homes the computer might replace the typewriter.
- Computer literacy will function like driving instruction, only be less complex. It will be limited to understanding the operation of extremely user-friendly computers with cheap, prepared software for word processing, book-keeping, graphics and data-base management – by definition, no major feat.
- The marketing of previously free information via databases will result in people learning to live without that information. Effective databases will be limited to professional situations with the result that the home computer will remain a largely isolated device.
- Holography, true stereoscopy, is, given this culture's addiction to realism, a necessity. It will therefore be marketed. And it will have as much and no more effect than any other advance (including film, radio and television) has done.

(In parenthesis it can be added that medicine will contribute evidence as overwhelming as that connecting smoking to cancer as to the (physically) deleterious effect of the television screen and with parallel limited effects on behaviour. The evidence is already being gathered. The US National Institute for Occupational Safety and Health found that in the United Airlines office in San Francisco, an environment with a high density of VDTs (Visual Display Terminals, known in UK as VDU – Visual Display Units, i.e. televisions), half of 48 pregnancies between 1979 and 1984 had ended in miscarriages, birth defects or other abnormalities. Working with VDTs can also increase risk of seizure in epileptics, according to the British Health and Safety Executive. The HSE also found facial dermatitis occurred in VDT work environments with low humidity.¹ The Newspaper Guild commissioned a study from the Mount Sinai School of Medicine in New York in which 1100 VDT workers in six locals were monitored for six months. Increased eye and radiation problems were found. The clincher is that the American Electronics Association (who make the things) testified before the Congress in 1984 that there was no evidence as to the deleterious effects of television. Their spokesman said: 'Regulation of VDTs on any health and safety basis is unwarranted.'²)

Business, media, alienation, nuclear families, right-wing govern-