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LA THÈSE A ÉTÉ MICROFILMÉE TELLE QUE NOUS L'AVONS REÇUE

Audience Fragmentation and the Development of Market Decision Support Systems

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ABSTRACT

Audience Fragmentation and the Development of Market Decision Support Systems

John Alexander Graham

The fragmentation of television audiences, and the introduction of a new generation of associated information technology, is radidly changing the way television is produced and sold. This thesis details these changes with an eye to the opportunities this new set of circomstances will provide for Canadian productions.

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1.0 INTRODUCTION

This thesis will attempt to answer the following question:

Will the use of new distribution and information technology provide market opportunities for Canadian television production?

This question taken by itself, while of some interest, might seem of peripheral or only minor importance. But if the question is taken in the context of the past thirty five years of Canadian broadcasting, where government policy and commercial response has been predicated by the notion that there was no available market which could support first class productions, it becomes a far more central question. But the important issue here is not solely that there may be an opportunity in this one area that did not exist before. It is that this opportunity could be part of the key to a number of broader future challenges. The Macdonald Royal Commission pointed out that Canadian commercial interests no longer have a corner on the natural resources market.[1] It suggests as a logical response to these conditions, that other kinds of products and new markets be developed. Effective use of the New Electronic Media (NEM) will be part and parcel of these

efforts to analyze and develop a presence in these new markets. As the new world programming order comes into play over the next fifteen years, influence in other areas such as politics and diplomacy will depend in a increasing degree on media prowess. In sum, if the frustration of the past has been an inability to produce competitive cultural programming for domestic distribution, the goal of the future will be to produce first class productions for far broader interests, for distribution both nationally and internationally.

Until recently, much of the thinking about television fragmentation and the rapid growth of information systems (both now conveniently filed under the acronym NEM), has been on a theoretical plane. There has been much speculation and many vagaries circulated about the promise and worth of both fragmentation and the introduction of information systems. Over the past few years however, NEM have been the subject of many disciplined field trials and informed, well written commentaries. In the light of this new, more practical knowledge, this thesis will attempt to bridge the gap from earlier theoretical generalization to practical realization.

The methodology employed here, therefore, depends on both the theoretical ideas of analysts, researchers and

academics, and on the practical knowledge of those established as practitioners and managers in the commercial world. Not only does this provide the best insights by providing the most up to date details in a dynamic situation, it is probably the only reliable way to gather knowledge in this area, simply because it exists in no other form. This methodology has been widely used by those working effectively in this field. Among the more notable examples are Brian Lewis, Harold Vogal and Grieve, Horner and Associates. The following observation on entertainment economics by Vogel can be applied equally to any of the areas studied in this thesis.

> [It is] surprising to find that most serious examinations of the economics of entertainment are desultorily scattered among various pamphlets, trade publications and journals, stockbrokers' reports, and incidental chapters in books on other topics. The widely available popular magazines and newspapers, biographies, histories, and technical manuals generally do not provide in-depth treatment of the subject.[2]

The international market for film and television is going through marked structural changes. But it is the U.S. market which, due to its size, technological advance, and commercial development, will be central to the international market-place. So, while other markets will be dealt with in passing, it is the U.S. that will be analyzed more fully. The first part of this thesis will deal with structural market changes brought about by the continued

implementation of new distribution technology (i.e. cable, satellite, VCR, etc.). The second part will analyze the use and potential of information systems in their application to the problems of this particular market-place. The conclusion will discuss how the advances in both areas will work together to create a far more complex and competitive programming environment over the next two decades.

A recent cover of Macleans informed its readers that television is "boiling over". As this thesis will illustrate, not only are the present changes rapid and dynamic, but they are the harbinger of a series of continued transitions. To a large degree these events will be precipitated by new technologies and the novel commercial structures they make possible. But before getting down to detailing these technical and commercial elements, it will be helpful, by way of introduction, to frame these central subjects in terms of their broader social and commercial context. After all, <u>television is marketed on the basis of its ability to market products and ideas</u>. It is therefore important to have an understanding of the broader aspects of social and commercial life that are currently seen as affecting present and future changes in the market-place at large. Trying to assess changes in television marketing without including a comment on these

larger changes in general would not work. As is outlined by Table 1.1, the broad changes covered in this thesis are mutually dependent and cannot be studied exclusively. The seed and soil just cannot be separated.

Over the past thirty five years, television and information systems have been at the heart of marketing practices. All analysts interviewed underlined the pervasive effects of computers and television on marketing research and practice, over the past three and one-half decades. Here are some of their insights on computerized information:

- It provides the means whereby many of the current practices of marketing managers and researchers are carried out--processing large amounts of data, using powerful statistical techniques, and implementing marketing information systems.

- Its applications over the period have moved from essentially a cost-control-accounting tool to a tool used in market planning, decision making, data analysis, and data collection.

. It is the pillar on which much of the new knowledge generated in marketing over the past quarter century rests.[3]

And here are some of their insights into the role of television:

. Increasing the efficiency of marketing and opening a wide band of communication alternatives that were not previously available.

. Allowing the targeting of persuasive messages to a truly mass audience at a relatively low cost per thousand people reached.

. Creating a new industry of specialists in the creative, media, and research aspects of marketing.[4]

For the past thirty five years not only have computerized information and broadcast television been central to marketing practices--they have also been mutually dependent. Television has encouraged mass consumption which could only be effectively exploited by the "number crunching" capacities of computers. Broadcast television, on the other hand, could not prove its worth

2.VI PROGRAM MARKETING TRANSITIONS

TABLE 1.1

	FINITE BROADCAST UNIVERSE	FRAGMENTING UNIVERSE
PERIOD	1950-1975	1975-1985
MARKETPLACE	Homogeneous values Industrial society National territories Static Market Structures	Individual life styles Service/information society National territories Market Structures
VIDEO COMMUNICATION TECHNOLOGY	Broadcasting Networking via landlines	Broadcasting Networking via satellite Cable VCR
INFORMATION COMMUNICATION TECHNOLOGY	Audimeters Diaries Mainframe computers Published reports	Audimeters Diaries Published Reports Personal Computers Data bases Customized on line research
PROGRAMMING SERVICES	Networks Independents	Networks Independents Basic Cable Pay Cable Ad Hoc Networks VCR
BUSINESS STRUCTURES	Network/Ad Agency/ Corporation	Network/Ad Agency/ Corporation Theatrical-Pay-VCR Ad Hoc Networks
STRATEGIES	Tactical based on ratings Top down media analysis Quantitative methodologies	Adapt to fragmented programming Experiment with new information and audience measurement technology Begin to plan media from bottom up Corporate stewardship of media plan

EXPERIMENTAL INFINITE UNIVERSE

1985-1995

Individual life styles
Service/ information society
Regional/International Dynamic territories
Dynamic Market Structures

Broadcasting
Networking via Satellite
Cable
VCR
DBS

People meters
Mainframe Computers
Personal Computers
MDSS Software for PCs
Extensive Data Bases
MDSS for Media
EFT applied to barter

Networks
Independents
Basic Cable
Pay Cable
Ad Hoc Network
Private Satellite Network
VCR

Network/Ad Agency/Corporation
Theatrical-Pay-VCR
Ad Hoc Networks
Private Satellite Networks
Experimental Barter Networks

Redefine program evaluation
Develop media MDSS
Develop EFT barter
Plan media bottom to top within Global strategy
Television involvement in retail
Development of a business "college" via private networks and electronic publishing

PRACTICAL INFINITE UNIVERSE

1995-

Individual life styles
Service/information society
Regional/International territories
Proactive Market Structures

Broadcasting
Networking via satellite
Cable
VCR
DBS
HDTV
Fiber optics, digital standard

People meters
Mainframe Computers
Personal Computers
Extensive Data Bases
Proactive MDSS
Integrated Barter EFT
Fiber optics, digital standard

Networks
Independent
Basic Cable
Pay Cable
Ad Hoc Networks
Private Satellite Networks
VCR
DBS-HDTV

Network/Ad Agency/Corporation
Theatrical-Pay-VCR
Ad Hoc Networks
Private Satellite Network
Proactive MDSS program structuring
Established Barter Networks
Pay Per View

Redefined qualitative and quantitative methodologies
Regional approach to programming on an international basis
Extensive barter arrangements via EFT
Proactive deal structuring via MDSS
Developing of prestige in electronic business "college"

without ratings achieved by the very same process. This communications structure has broadly influenced every aspect of our lives, from soap and beer to politics and religion. As this structure changes with the introduction of newer technology, its influence will change as well. This is not to say that this thesis must deal with the myriad aspects of the social effects of television programming and how they are changing. But an analysis in general of future marketing concerns of those who purchase television programming will certainly be helpful. These changes can be fairly summed up under three headings:

- socio-economic changes within North American society;

- fundamental changes within commercial life brought on in part by the introduction of the information society;

- and changes in how marketing decisions are being made in this complex environment with the use of electronic information systems.

It is a fairly commonplace observation to note that North American society has changed over the last three decades. A homogeneous set of aspirations has been

replaced with any number of "life styles". But what is less often considered is how these changes are coming to bear on the mass media. This topic was thoughtfully treated by David K. Braun, media director for General Foods:

> The new electronic media--and comments about it--will be easier to understand if they are viewed in the broader context of socio economic trends in the United States today. The key observation is that our society is no longer homogeneous--in its behaviour, in its attitudes, or in its aspirations. As recently as the 1950s and 1960s, the "other-directed society" aspired to own that suburban house with the white picket fence. If we didn't already live there (with two children, a dog, and a station wagon), we were at least headed in that direction. That was a time when husbands worked and wives stayed home, a time when advertizers could address a monolithic body of average U.S. consumers. We could use broad general language developed through mass magazines and the living room television set. Marketing was relatively simple. But times have changed. That prototypical target family of working husband, housewife at home, two kids, a dog, and a suburban house now represent only 7 percent of U.S. households. America has evolved from a farm and foundry economy to one dominated by service and information. This change, combined with the women's movement and economic inflation, has produced a work force that includes fully half of all women over eighteen. Nearly four of every ten adult women work at least thirty hours a week.
>
> Our former homogeneous goals and values have been replaced by an extremely diverse set of aspirations and life styles. As far back as 1977, Larry Light aptly referred to this cultural shift as "The Age of Me". This trend toward individualizations has both led and been enhanced by the tremendous growth in "life styles" magazines and in the number of homes with more than one television set. Half of all homes now have two or more TV sets. Why is this important? It means that television watching in America--like Sunday afternoons and the evening meal--is no longer considered a family experience.[5]

If North American society has gone through a period of transition from a reliable status quo to one of individual expression and adventure, commercial life seems poised for a similar experience. New technology and expanding markets will combine to challenge and modify existing business structures on a scale not seen since the height of the industrial revolution. The sweeping effects of new information technology on commerce is becoming somewhat clearer. But trying to foretell its ultimate state in every facet tends to lead to pointless Cartesian assertions. What is most useful here is the judicious application of theoretical assumptions. As far as these go, this comment by Charles Brown, Chairman of A.T. and T., is as helpful as any. "What is important is that we now have technology that make it possible to manage information when you want it, where you want it, in the form you want it--and all at an affordable price:"[6] If this statement is the soul of simplicity, its implications are horribly complex. This statement of Charles Brown's contains conditions that will affect almost every aspect of commercial endeavour. From electronic fund transfers which are causing a restructuring of financial institutions, to computer aided design and manufacturing systems that are revolutionizing industrial production, the institutions of the industrial world are entering a state of turmoil and

fruition. Consider Peter Druker's analysis of the world's changing commercial fortunes:

> Now, however, we may be entering a period of rapid change more comparable in its basic features to the closing decades of the nineteenth century than to the immediate past with which we are familiar. In the late nineteenth century, as we need to remind ourselves, a major new invention, leading almost immediately to the emergence of a major new industry, surfaced every few months on average. This period began in 1856, the year that saw the invention of both the electric motor and synthetic dye. It ended with the development of the modern electronic tube in 1911. In between came typewriters and automobiles, electric light bulbs, man made fibers, tractors, street cars, synthetic drugs, telephone, radio and airplane--to mention only a few. In between, in other words, came the modern world.
>
> By contrast, no truly new major industry was started after 1914 until the late 1950s, when computers first became operational.
>
> In between 1870 and 1914 the industrial geography of the world was in rapid change. A new major industrial area emerged on average every decade or so: the U.S. and Germany between 1860 and 1870, western Russia and Japan during the next twenty years, Central Europe by 1900. Between World War 1 and World War 11, however, no major new industrial area joined the industrial club.
>
> Now, however, there are signs of rapid change, with Brazil and China, for instance, approaching the "take off point".[7]

The industrialized world will grow, it will become more competitive, and there will be a far larger array of goods and services. The international proliferation of new video technology will give television a more selective audience and a far larger audience in countries that have had very limited television programming. Some of this

potential is illustrated by Table 1.2 and Figure 1.1. The challenge will be to use the new television technologies to compete more effectively in this more complex and larger market-place.

This brings us to the third central issue facing the market-place of today--the use of electronic information systems to better cope with the complexities of this new market-place. On the surface of things, it would seem that information systems will finally take the mystery out of media marketing decisions. Programmers will eventually know precisely who is watching which programs and how it affects their purchases and other behaviour. But regardless of how comprehensive this new information/programming structure becomes, it will be reacting to a market-place that breeds complexity. Social, cultural, and technological change will continue to crystalize into a series of changing and unique market circumstances that will all have to be effectively taken into account in order to create and market media. The turmoil of the market-place will not go away. In terms of social and commercial life, the changes that are upon us will continue to compound the problem. The genie is out of the bottle, and will not go back in. The complexities of the future market-place will continue to grow. Social change, "culture d'image" and business restructuring will

FIGURE 1.1

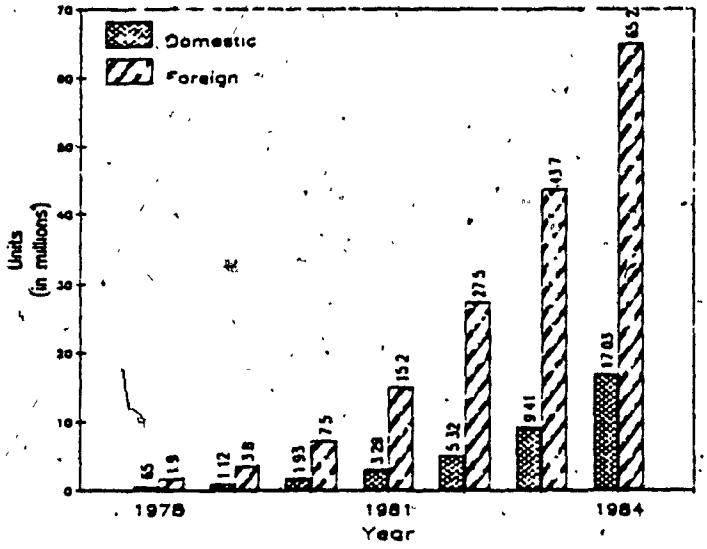


Figure 7.3. Worldwide VCR population, 1978–84. *Source:* Video Marketing (Hollywood, CA) and MITI (Japan).

TABLE 1.2.

TV sets, major developed free countries, 1984 estimates

Country	No. sets (thousand)	Sets per thousand pop
United States	142,051	612
Canada	11,905	458
Europe		
Austria	2,811	377
Belgium	3,000	304
Denmark	1,832	355
France	13,342	320
Greece	1,508	158
W. Germany	21,329	354
Italy	13,427	233
Netherlands	4,117	287
Spain	9,576	248
Sweden	3,100	375
Switzerland	2,014	310
United Kingdom	19,972	359
Other	5,234	222
Total	101,262	
Africa		
Algeria	900	41
Egypt	2,157	47
S. Africa	1,950	59
Total	5,007	
Middle East		
Israel	615	143
Jordan	201	53
Kuwait	555	377
Lebanon	459	159
Saudi Arabia	2,301	220
Turkey	3,452	69
Total	7,583	
Asia		
China (Taiwan)	7,548	420
Hong Kong	1,146	205
India	1,769	2
Indonesia	1,895	12
Japan	29,872	250
S. Korea	7,137	174
Philippines	955	17
Singapore	502	199
Thailand	2,343	46
Total	53,167	
Oceania		
Australia	6,000	395
New Zealand	903	264
Total	6,903	
Central & South America		
Argentina	5,800	204
Brazil	19,260	144
Colombia	1,780	63
Mexico	7,458	95
Venezuela	1,851	104
Total	36,149	
Approximate number of free-world sets outside of U.S. and Canada	210,071	

Source: *Television Age International*, April 1984.

continue to produce different life styles and market requirements in North America and world wide. These factors cannot be simplified and will not conveniently be resolved by the kind of formulized measurement used at present. Moreover, not only will audiences become much more complex, but the selection of programs and methods of program distribution will also be more complex. New uses of television will require different evaluation methods. Private satellite networks that will keep information based service industries (financial services, law firms, consultants, etc.) up to date and in touch in an increasingly dynamic business world, will require the novel forms of evaluation. Ad hoc networks developed for a select marketing or political purpose will require a variety of evaluation procedures. Basic cable channels and VCRs are just being considered in terms of measuring their effectiveness for marketing purposes. Each new set of circumstances will require a different approach and an equivalently different set of evaluation procedures. How can reliable decisions be made in the face of such convoluted and uncertain circumstances? Vincent P. Barabba, director of market intelligence for Eastman Kodak, and past director of the Social Science Research Council and U.S. Census Bureau, referring to the difficulties in implementing information systems and marketing strategies in these turbulent circumstances, made this comment:

> ...issues are [now] characterized by their synergism. Whereas once the scientific and technical aspects... could be clearly separated from the ethical, legal, moral, and political issues, this is no longer so. To attempt to wrench the scientific from the other issues is not only to distort the true meaning of the issue as a whole--since the various aspects do not exist in isolation or separately from one another--but also to render proper management of the issue inoperable.[8]

Managing decisions in this environment depend not so much on quantifying specifics but in balancing the myriad aspects of many different issues. Clearly this is where the new information technology can help out by making the most up to date and comprehensive basis for understanding these issues. But electronic machinery by itself will not solve problems. What will solve problems, and solve them profitably and efficiently, are people who can use these machines effectively. Charles J. McMillan, a principle adviser to the Prime Minister of Canada, points out that essential distinction in his book, The Japanese Industrial System.

> ...Japan differs not so much in quantity of planning as in quality.. Japanese corporations can tap the munificent information systems not just of government, but also of trading firms, consultants, commercial banks, not to mention their own planning departments. These inter-organizational networks are not unique to Japan, but the thoroughness of information gathering and strategic assessment of industrial intelligence has hardly any parallel in Western firms.[9]

Information technology will not clarify the complexities of the market-place. They can be used,

however, to help make plans on the most advanced and reasonable basis possible. But for this to happen, the information technology must be implemented correctly and be well used by those it is supposed to serve. For as McMillan points out, it is not the technology that provides the critical insights, it is the people using the technology.

To summarize, over the past thirty five years television and computers have changed the face of marketing. They have greatly refined the techniques for analyzing and reaching a mass market. The newer television and computer technology will modify this structure by allowing television programming to reach audiences of different sizes without the time and space limitations of broadcast, and permit computerized information to make far more exact measurements on a far broader selection of criteria. Audiences can now be targeted and analyzed more broadly and to a much finer degree. The implementation of new commercial structures that will grow out of these technologies, will be further complicated by the breadth of cultural diversity, differing lifestyles and commercial expansion and uncertainty that will come to characterize the market-place over the next two decades. While adapting information systems to these exigencies will be helpful, the complexities will not lend themselves to formulized

analysis. What will help is the thoughtful implementation of information systems and a emphasis on using the information provided in a disciplined and innovative way.

2.0 INTRODUCTION PART I: THE U.S. MARKET AND FRAGMENTATION

It has been said there is no U.S. market for foreign television programs. It has also been said that the U.S. market is the only market. In a sense both points of view are correct. The projected market for television programs in the U.S. in 1986 is 6.5 billion.[10] The European market, although potentially larger, remains commercially under developed and highly regulated against imports. On the other hand, annual U.S. purchases of foreign programming have been less than $1,000,000 in recent years.[11] Networks make almost no foreign purchases. PBS, which on casual observation may seem to favour foreign productions, spends a little over ten per cent on foreign programming.[12] So evidently both assertions have much truth to them. Generally speaking, the U.S. market is the only market that is large enough to help fund high quality prime time programming. But it has been so difficult to penetrate that it has provided only minor returns to foreign production houses. This small direct importation is a misleading indication of future U.S. market potential for two reasons. First, it does not take into account that a fragmented programming market will erode the commercial dominance of U.S. based producers, as U.S. producers will find it more difficult to cover the cost of production out

of their smaller share of the domestic market. As a result, programmers will tend to look for programming that is already pre-sold in foreign markets. Secondly, this perspective is based on purchases of programming, rather than on co-production and other partnership deals. And it is on this partnership basis that progamming is most effectively marketed. This is to say that most programming is pre-purchased to a large extent by some distribution network, their investments securing future rights. This holds true for broadcast television, pay television and theatrical release. This analysis of markets and emerging markets becomes for the most part a study of financing. The most workable financing scheme is, in effect, the best marketing scheme. The first part of this study then will look at the different programming business structures in the U.S. and elsewhere and the financial pressures they are currently dealing with as a result of the new distribution technologies. It will also look at how non-American producers are succeeding in penetrating the U.S. market or mounting successful international productions on an even broader basis.

Over the past few years there has been much discussion in media and television circles of something called "fragmentation". This is understood to mean the breaking up of the broadcast audience as other methods of

distribution attract various segments of that audience away. There is some validity to this insight. But it is also a highly misleading description of how the new distribution technology is coming into play. In the past the introduction of new electronic media has generally been assumed to make the older media obsolete. The telephone was seen as making the telegraph obsolete, radio was thought to be making the phonograph obsolete, and television was thought to be making the movies obsolete. What happened, in fact, was that the old media did not become obsolete, it was adapted to the new set of circumstances. The mistake which was repeated was a finite view of communication possibilities--an idea that communication was at the final frontier for all time, and that new developments could only result in territorial subdivision. Not only was the older media adapted but the newer media were used in a variety of new ways. Those that speak of "fragmentation" imply that broadcasting is our final frontier, and that the newer distribution will only subdivide that territory. To some degree this is true. But it overlooks both the ability of broadcasting to adapt, and the possibilities these newer methods of distribution have for breaking new ground. This analysis of the new methods of distribution will attempt to take these factors into account and, hopefully, produce a more insightful and

balanced view of what is generally referred to as fragmentation.

The new distribution technologies have changed three fundamental restrictions to program viewing. In the past, viewing was restricted by time, space and the spectrum availability of broadcast technology. With the advent of cable, satellites and VCRs, these restrictions no longer exist. The resulting effect is the creation of a programming market that permits--and in some circumstances requires--productions that can be marketed on a broader international basis, productions that are created for a more precise audience, and productions that are created for a narrow audience on an international basis. Most analysts assume that Rupert Murdoch's broad international television aquisitions will be used to create an international distribution network for a mass audience.[13] The "Live Aid" concert appealed to a narrow audience on a broad international basis. An Operation Primetime co-production such as "A Woman Called Golda", attempts to attract an upscale audience on an international basis.[14] The use of ad hoc networks for very narrow business purposes has proved highly successful on a national and broad international basis.

There has been much speculation and much experimentation in programming these new methods of distribution. In some areas, such as advertiser supported and pay cable services in North America, these efforts are beginning to stabilize to a point where it is possible to identify what the prevailing commercial structures will be. In other areas such as those involving VCRs and direct broadcast satellites where the technology is still far from being fully implemented, programming structures remain in a state of flux. But even as these specific uncertainties clarify themselves, the emerging global communications order, with many more avenues for programming distribution, will also develop a far greater capacity to share ideas and information about production and distribution. Computerized data bases and information systems will permit media planning and analysis of programming opportunities on a scale never before contemplated. There will be a more detailed treatment of the effects of this new information technology in the second part of this thesis. For now it is sufficient to say that this new programming order will remain a highly complex arena. Perhaps the best way to begin to handle these complexities is with a service by service analysis of how these changes are coming to bear on various avenues of distribution, both old and new.

This analysis will be divided into four chapters. The first chapter will deal with the major networks, which will continue to present the largest possible market for television programming in the U.S. The second chapter will deal with the ad hoc networks. Ad hoc networks are rapidly becoming one of the most inventive forms of program distribution in the new communication order. The third chapter will deal with pay-theatrical programming, looking at how the growth of VCRs, pay cable, and other changes in feature film production are coming to bear on that market. And, finally, PBS will be examined in the light of these and other changes. This analysis will not try to be exhaustive of all possibilities in the U.S. programming market. For instance, rock videos, basic cable programming, and arts programming will not be discussed. But these four chapters will deal with the major structural changes within that market-place.

3.0 THE MAJOR NETWORKS

As mentioned earlier, the three major networks in the U.S. buy next to no imported programming and seem reluctant to enter into international productions. This is not surprising in view of how small and intimate the network business world is. The three networks get 25% of their advertising from nine sources, 50% from 31 sources and 75% from 81 sources.[15] The foremost advertiser, Procter and Gamble, the largest network television advertiser, spends over $400 million, the equivalent of the smallest 357 network advertisers combined.[16] The 10 top ad agencies account for 90% of all network buying.[17] As is shown by Table 3.1, until last year network revenues have increased every year except for a minor set back in 1970-71, when tobacco advertising was banned. The cost of television advertising has risen far more steeply than any other media since 1960, as can be seen in Tables 3.2 and 3.1. In a business with an extremely successful history, where program decision making is concentrated in the hands of three networks, ten advertising agencies and 81 advertisers, the incentive to look at changes beyond the existing business programming structures is clearly very small.

TABLE 3.1

Table S6.3. *TV gross advertising revenues ($ million): network, spot, and local, 1960–82*

Year	Network	% change	National & regional spot time	% change	Local	% change	Total	% change
1960	746 6		469.1		240.5		1,456.2	
1961	801.9	7.4	489.5	4.3	222 9	(7.3)	1,514.3	4.0
1962	886 6	10 6	564.4	15.3	253.7	13.8	1,704 7	12.6
1963	944.7	6 6	626 0	10.9	265.7	4.7	1,836 4	7 7
1964	1,044.8	10.6	721.2	15.2	300.8	13 6	2,067 8	12 6
1965	1,141.7	9.3	795.9	10 4	328 3	8.8	2,265 9	9.6
1966	1,302 4	14.1	882.2	10.8	373 0	13.6	2,557.6	12 9
1967	1,359 1	4.4	882.7	0.1	392 6	5.3	2,634.4	3 0
1968	1,424 3	4.8	1,009.8	14.4	482 0	22 8	2,916.1	10 7
1969	1,569 6	10.2	1,119.1	10.8	546 8	13.4	3,235.5	11 0
1970	1,551.1	(1.2)	1,102 6	(1.5)	589 1	7.7	3,242.8	0 2
1971	1,490.4	(3.9)	1,022.8	(7.2)	665.6	13 0	3,178 8	(2 0)
1972	1,687 5	13.2	1,177.4	15.1	810 1	21.7	3,675 0	15 6
1973	1,839.7	9.0	1,230 2	4.5	932.2	15.1	4,002 1	8.9
1974	2,005 6	9 0	1,337 3	8.7	1,013.7	8.7	4,356 6	8.9
1975	2,156.7	7.5	1,449.2	8.4	1,116.2	10.1	4,722.1	9.5
1976	2,674 9	24.0	1,922 6	32 7	1,431.9	28.3	6,029.3	27.7
1977	3,241.2	21.2	1,967.3	2 3	1,630 9	13 9	6,839.3	13.4
1978	3,725 8	15.0	2,336.1	18 7	2,039 9	25.1	8,101.8	18.5
1979	4,310.5	15.7	2,573.6	10.2	2,297 8	12.6	9,181.9	13.3
1980	4,808.1	11.5	2,928.9	13.8	2,542.0	10 6	10,279 0	11.9
1981*	5,225.0	8.7	3,370.0	15.1	2,895.0	13.9	11,490 0	11 8
1982*	5,820 0	11.4	3,945 0	17.1	3,240.0	11.9	13,005.0	13 2

Note: Compiled for *Television Digest* by Television Bureau of Advertising Inc. (TvB) from official FCC figures. Gross advertising revenues are the total amounts paid by advertisers for the use of broadcast facilities. They include commissions paid to advertising agencies and representative agencies, and cover charges for broadcast time, programs, materials, facilities, and services. Parentheses denote loss.

*TvB estimate; FCC no longer compiling data.

Source: *Television Factbook*, No. 52, 1984.

TABLE 3.2

Average yearly percentage increase in CPM

Category	1976–9	1980–1	1982	1983	1984	1985[a]
Broadcast						
Daytime network TV	17	9	9	5	8	12
Evening network TV	14	10	24	7	15	9
Spot TV	10	6	9	8	11	6
Network radio	8	8	7	10	10	10
Spot radio	8	7	6	7	7	7
Print						
Magazines	7	11	11	6	7	9
Supplements	3	10	12	5	7	8
Newspapers	9	12	10	10	9	7
Outdoor						
Posters	9	10	10	6	8	8
CPI	8	11	6	3	4	4

Top and bottom tables report trends in index form, with 1976, the base year, indexed at 100. Estimates are based on unit costs of 30 seconds for TV and network radio, 60 seconds for spot radio, one page four-color for magazines, milline black and white for newspapers, one page four-color for supplements, and 100 showing for outdoor through 1981 and increases in 50 showing for 1982–5. CPMs are based on women 18+ for day network, total persons 2+ for evening network, TV households for spot TV, persons 12+ for radio, circulation for magazines, newspapers and supplements and total population for outdoor.

[a]Figures for 1985 are Ted Bates's estimates.

Source: *Broadcasting*, March 18, 1985. Sources for audience information: network and spot TV, A.C. Nielsen; network radio, RADAR; spot radio, Arbitron; magazines, Magazine Publishers Association; newspapers, Newspaper Advertising Bureau; supplements, Standard Rate & Data; outdoor, Outdoor Bureau and estimates. Advertising expenditure and GNP data from Television Bureau of Advertising. CPI is based on increases in yearly average rather than December to December.

There have been some assertions that this lack of inclination to adapt to the new media environment will cause the networks to succumb "like dinosaurs". This seems highly unlikely. Their final status is uncertain, but their future appears reasonably secure. By 1990-91 their audience share is estimated to drop to between 70% and 50% in prime time, and slightly lower than that in daytime.[18] But, with a projected growth in the number of television homes from 80 to 98 million, the total number of homes reached by networks may even increase by five million.[19] The only real threat here is the possibility of a fourth network. Pay cable and independent broadcasters have been cutting into the networks' audience share, particularly with the affluent, young and urban who appeal to advertisers. This advertising base may be further eroded if the pay cable systems acquire the rights to major events and entertainments, as some analysts think pay cable may well do with N.F.L. football and if structural changes within broadcasting deprive networks of program inventory[20] (see chapter 10). This loss of revenue cannot be made up by charging advertisers inflationary rates. Last year the networks saw their revenues decline for the first time. Both CBS and ABC have been forced to reduce their rates. However, the networks will continue to be the only way to advertise regularly on a national basis in the foreseeable future. Another real threat is the potential creation of

fourth major network. Plans have been discussed in this area for some time, and have recently surfaced with the Fox proposal being pursued by the media entrepreneur Rupert Murdoch. However, even his network will not be fully operational for at least five years. By 1990, the Vertical Blanking Interval (VBI) will become an additional source of revenue for broadcasters. The VBI permits two hundred pages of teletex material to be broadcast. It will allow broadcasters to develop direct marketing advertising on the teletext display it makes available. Direct market advertising using the vertical blanking band will eventually generate over $1 billion a year.[21] And it is possible the VBI could also be used as a retail outlet by the networks themselves, providing another source of revenue, particularly if barter continues to become an increasingly important element in program financing. As will be discussed in the conclusion, advanced barter systems now conceivable with the rapid growth of Electronic Funds Transfers (EFT), may increase the trend toward barter and barter syndication. This particular speculation aside, the best guess at this time is that the networks will be buying over 50% of programming in the U.S. market for some time to come.

There has been some speculation that the present threat to their younger urban audiences would interest the

networks in purchasing more sophisticated, perhaps foreign productions. And there does seem to be logic to this idea. While NBC did run the British import series "The Saint", the recent trend has been to adapt attractive foreign ideas for a royalty fee and give them a U.S. production. For instance, the idea for "Three's Company" was adapted from Thames Television's "A Man About the House". NBC adapted a pilot from the French film farce, "La Cage Aux Folles". However, recently the main incentive to network program purchases has been economics and not sophistication. CTV has succeeded in developing a series with a "North American" look called Night Heat, that CBS put on in its late night time slot. Night Heat did well in the rating and a similar show entitled "Hot Shots" is being produced this year with a prior commitment from CBS.[22] It too will be shown late at night. The success of these series, in spite of the lack of well known actors, could encourage other networks to look at other Canadian productions. They could well become economical replacements for early fringe, or late night where the usual "second rate" entertainment attractions such as series reruns, old movies and talk shows that are suffering from audience over exposure. Moreover, the networks present emphasis on economics may make this type of Canadian production very attractive to them.

Another avenue that may prove more fruitful is direct corporate sponsorship of a production, particularly specials and mini-series. Since specials are, almost by definition, distinct from other prime time programs, an international look to the production can help make the production distinctive. The subject matter and settings for specials varies widely. In the 1979-80 season General Motors sponsored "Shining Season", a drama special about a man's struggle with cancer.[23] Other prime time specials have been as varied as cartoons and lectures on science. In 1985, advertisers spent $300 million on specials. Specials are a very important type of programming for the networks. They in effect "create" inventory, as the network can sell the special and the time slot for the regular programming. Of course, when the special is run the network must make good its commitment to the regular advertiser elsewhere, but it does provide the network with two sales commitments that can be later juggled into place as the uncertainties of the season are sorted out.[24] Specials, therefore, are twice welcome as relief help when a new series falters. They are also considered the most effective weapon in the rating wars. Beyond these attractions, specials do best what networks want from all programming. They earn premium rates. To advertisers seeking a definitive television presence, specials provide the merchantable advantage of a message apart from the clutter that otherwise accompanies

primetime advertising. Special productions are organized either by the networks or by sponsors. Although networks are not actually encouraging sponsor originated specials, some sponsors such as Procter and Gamble, General Motors and General Foods do originate their own specials. If the sponsor originates the special, it is the sponsor who is responsible for the production, while the network maintains control over promotion and scheduling, adding to the sponsor's risk. If the network accepts the special the sponsor pays only a small time charge. However, the sponsor must put up large amounts of production money solely on the basis of a script.

Specials produced with support from other markets and incentives available to production in other markets could greatly reduce the risk to the sponsor. Some models, making use of Canadian incentives and economies of production, can reduce the amount of speculative investment by as much as 75%. With advertising budgets being stretched between the continuous increase in the price of national television advertising and the added expense of finding other means to advertise to those groups who will be turning away from network television, this saving could become compelling to those that have become dependent on television advertising. It also places specials within the reach of a far larger number of corporations whose

advertising budgets would be too limited to otherwise undertake special sponsorship. The desire among corporations to develop a more direct investment in directly sponsored programming is explained by the Director of Media Relations for General Foods:

> Probably the most obvious issue raised by the new electronic media concerns costs. The emergence of NEM has tended to drive up advertising costs, at least in the short term. Fledgling cable networks must invest in expensive programming to attract audiences. As dozens of new channels succeed in attracting audiences, the networks' costs per thousand viewers (CPMs) escalate. At least for now, we are faced with the old truism of economies of scale operating in reverse. Some advertisers, General Foods among them, seek a partial solution in reassessing the value of advertising exposure on cable. We are asking whether segmented, special interest programs offer significantly greater advertising value than broadcast counterparts. Even if they do, we must also determine the optimum mix of specialized and broad scale exposure.
>
> In learning how to deal with this new media environment, we are seeking opportunities to increase our control over the costs and effectiveness of advertising by doing business in different ways. If we conclude that there is significant benefit in producing our own programs and commercials, we will investigate alternative ways to get into the production business. Coca-cola must have already arrived at such a conclusion when they acquired Columbia Pictures Television...[26]

If the possibility of penetrating the U.S. market with specials is attractive to potential sponsors, it is far more so to producers in Canada. The producer of "Anne Of Green Gables" was unable to receive corporate sponsorship for his production in spite of the involvement of highly-

placed CBC executives in attempts to obtain such sponsorship. Moreover, he feels that such a sponsorship scheme, once in place, would be the ideal production financing scheme.[28] Given the extremely favourable reviews the production received when it was aired on PBS, it is fair to say that this type of sponsorship would be a publicity bargain for a participating sponsor in the U.S. To date, however, the only direct corporate sponsorship of Canadian production (aside from sport and event programming) has been for Patrick Watson's "Venture" which had Royal Bank involvement, and his recently completed series on democracy which has a Petro Canada involvement. And both of these sponsorship deals are limited to the Canadian market.

The networks continue to change attitudes as they come to terms with their programming policies in the fragmented market-place. A major reason given by advertisers for the decline in network advertising was the poor quality of programming. The trend toward more efficient production, and a growing dissatisfaction with present programming policies, and a growing acceptance of some polished Canadian productions, may indicate that the U.S. network market is opening up. The major concern of those involved with Canadian production here, is that those sponsoring programming in the U.S. market will require programming

that is familiar to the general U.S. audience, and hence devalue Canadian productions in that market. But regardless of how these qualitative generalities are interpreted, any successful marketing effort will require making relevant information about the effectiveness of international and foreign productions in the various U.S. markets available to those with large advertising budgets. Then, and only then will it be possible to reason effectively around these issues. That kind of information is just now starting to become available. This new, more detailed information, and its continued importance to effective program marketing will be discussed in Part II.

4.0 AD HOC NETWORKING

Ad hoc networks are created for a specific program, which is distributed from a satellite to previously arranged local distribution points. This local distribution may be broadcasting, cable, theatrical (i.e. large screens for large audiences) or directly to individual television sets. For the purposes of this thesis, it is probably best to divide ad hoc networks into two types and deal with them separately. It is convenient to distinguish between the large ad hoc networks that are set up for mass entertainment, and smaller ones established for some private information purpose, even though some of the latter kind do involve widespread public access via cable distribution. The first are generally referred to as ad hoc networks pure and simple, and the latter are frequently called private satellite networks. The main distinction is one of magnitude and purpose. An ad hoc network such as Operation Prime Time, which distributes entertainment programming to an audience that comprises 80% of all television households, is clearly in a different league from one that is created to inform a nationwide sales force about a new product release. And yet, ad hoc networks at both ends of the spectrum are worthwhile, and becoming more so.

The cost of satellite transponder time is predicted to drop, particularly when fiber optic communications are more fully in place.[28] The use of ad hoc networks for mass audiences, and private satellite networks by commerce, institutions and government is just beginning. As business structures become more established and the terrestial technology becomes more commonplace, the opportunities for all kinds of programming on ad hoc and private satellite networks will continue to increase.[29] To begin with, this chapter will look at the larger ad hoc networks that are evolving out of independents and satellite distribution to broadcasters. Secondly, the private satellite networks that are evolving at the other end of the spectrum, for audiences with a very specific interest, will be examined.

4.1 AD HOC NETWORKS

General interest in ad hoc networks have evolved over the past few years for two basic reasons: the strengthening of independents, and improvements in satellite technology. Over the past few years, affiliates have shown a tendency to slip away from network programming, and group together with other affiliates around independents to form ad hoc networks which carry specific alternative programs.[30] Affiliates are not contractually bound to carry network feed, but networks

often have secondary affiliates that carry their programming in that market, effectively preventing an affiliate from refusing to carry the network programming unless they have an attractive replacement. Competitive prime time programs are far too expensive for a single independent or affiliate to afford. However, the independents, by building audiences through a combination of syndicated reruns, old movies, game shows, and local sports events with strong male appeal have steadily increased their market share.[31] Affiliates, too, have grown much stronger over the last decade. Advertising revenue tells some of the story. In 1970, local advertising amounted to $704 million. By 1980, it had quadrupled to $2,976 million, or 48% of all television advertising.[32]

Local programming, too, has recently improved. In 1979 when the F.C.C. established a prime time rule to ensure that affiliates got one half hour of prime time, most affiliates programmed cut rate game shows. Independents, however, combined their low cost program inventory (depending primarily on off network reruns and old movies) with a counter programming strategy. "Counter programming" involved scheduling the independents' strongest programming in fringe times. Reruns were scheduled from 4 to 8 p.m., beginning with shows aimed at

the juvenile audience and ending with a more mature orientation. At 10 p.m. independents "counter-programmed" an early news show aimed at the early to bed audience. Table 4.1 illustrates the success of this strategy. By 1979, growing commercial success and new distribution technology permitted the formation of ad hoc networks.[33] In 1980, WPIX TV in New York formed Independent Network News, distributing its 10 p.m. news via satellite.[34] A year later, that program was being distributed to 57 local stations.[35] In 1979, Metromedia in Boston, the largest independent, growing increasingly larger with cable penetration in nearby markets, organized Operation Prime Time (O.P.T.).[36] O.P.T. produced drama and variety programming aimed at challenging network prime time programming. They produced dramatizations of the Gothic novels "Testimony of Two Men" and "The Damned". O.P.T's "A Woman Called Golda", led the rating in most important television markets. Since O.P.T reaches only 60% of the audience that the major networks can reach, it has welcomed foreign co-ventures to help cover the cost of expensive prime time drama. O.P.T can pay up to $600 to $800 thousand per hour of $1 million prime time budgets.[37] Among these co-ventures were "Blood & Honour", produced with Beta of Germany, and the British co-venture "Smiley's People". The ad hoc networks could provide one of the

TABLE 4.1

LOCAL TELEVISION STATION ADVERTISING REVENUES

	Amount (000,000)			Percentage of total		
	1970	1975	1980	1970	1975	1980
National spot	$1234	$1623	$3244	70	55	52
Local	704	1334	2976	30	45	48

Source: "Publication title 2 " Federal Communications Commission, Washington, 1982.

strongest markets for foreign producers putting together international productions. As mentioned, they are open to foreign productions and ideas. And they will be under increasing pressure to come up with competitive prime time programming on a limited budget, as they come to terms with growing programming problems. The independents have built their strength on movies and off network series. Pay television exposure has devalued the worth of many movies. A shortage of off network series has pushed prices up to a very high level. Moreover, the satellite distribution that has made ad hoc networks possible has also created competing superstations, and strengthened cable services. Independents will have to move quickly to acquire quality prime time programming if they are to protect and build on their present advantage.

It is an advantage that both independents and advertisers should find well worth defending. The standard compensation to affiliates carrying network programming is a maximum of around $10,000 for the top markets, to less than $100 in the smallest. An ad hoc network on the other hand offers a large sale of the commercial advertising time, as much as 50%, allowing stations to sell far more commercials locally. For instance, WCUB, a Metro Media, ABC affiliate, earns only $10,000 from a two hour primetime movie. WCUB would earn $100,000 from the more lucrative ad

hoc arrangement providing a reasonably attractive alternative.[38] Since ad hoc networks are formed around independents who reach a large percentage of the affluent urban audience, they are of special interest to advertisers. The McCann Erickson agency has proposed a project that would have ad hoc networks setting aside two hours a week for first run programming.[39] Embassy Telecommunications is looking at the possibility of a quarterly movie night on a group of 100 stations. Paramount is considering a movie and specials ad hoc network.[40] As independents, advertisers, and production houses become more attuned to the potential advantages ad hoc networks can provide, it is a fairly safe assumption that these programming structures will become more prevalent. It is also a reasonably safe assumption that these structures will continue to welcome foreign participation. The more that can be brought in by outside partners, the greater the profit to be made in the market by U.S. participants. There are a number of barriers to Canadian productions making use of U.S. ad hoc networks. The one that is most commonly cited is that O.P.T. only selects a handful of projects for production out of a hundred that are submitted. But these odds are the same for any project that is submitted to any production entity, and underlines the need for development as much as the difficulties in dealing with U.S. ad hocs. Moreover, the

idea of developing a Canadian based North American ad hoc network, which could greatly increase the number of Canadian ideas being considered for production, seems to have never been seriously thought out.

Nowhere is complexity more evident in new media structures than in these sporadic one event broadcasts which require consultation and agreement between dozens of partners. Organizing and communicating information in this dynamic set of circumstances will be central to business success here. Alfred M. Masini, past president of the Station Representatives Association, underlines the cardinal points that must be addressed in concert by ad hoc network participants to assure success.

- They must appeal to and meet the needs of independent and affiliated stations.

- The preemption requirements for affiliates must be tolerable.

- The investment requirements for independents must be manageable.

- The programming must be top quality--assured by a large budget.

- The preemption decision must be left up to the station and not set at an exact hour and day schedule nationwide.

- Nationwide publicity must be allowed by agreeing to a same week release.

- Arrangements for double exposure by independents must be made in order to assure the widest possible reach.[41]

In terms of ratings, O.P.T. was a solid success, particularly with the independents that have achieved near network level prime time ratings with ad hoc specials, and double exposure cumulative ratings have ranked among the top for the month.[42] In spite of these ratings, advertisers have had qualms about doing business with ad hocs. In order to assure top quality programming on a regular basis, up front advertisers must be secured. Many national advertisers are reluctant to be sold on the value of ad hoc networks for two basic reasons. Ad hoc programming tends to be aimed at the up scale view, providing a value that is not taken into account by cost per thousand calculations that most program buyers depend on. Moreover, networks can offer audience delivery guarantees backed up by make-good commercials in the case

of a shortfall. Ad hoc programming cannot offer this guarantee. In view of this uncertainty, national advertisers are requiring a 20% discount on ad hoc networks.[43]

Information systems could be implemented to address these basic problems. More indepth audience analysis that is being developed can establish the value of various ad hoc network audiences. Advertiser discounts could be avoided by the adroit use of computerized audience information, so that the make good guarantees could be acquired on a station by station basis. This would provide make good programming further on in the season depending on ratings in each market. This would involve an even more difficult set of relations in an already complex marketing scheme. However, the use of electronic information to link together ad hocs is already the key to their success and this continued implementation should meet with general encouragement. George Matta, of Mondovision in Toronto, who uses ad hoc link ups within Canada to distribute event programming, notes that with electronic mail and established contacts, the time it takes to set up a Canadian based ad hoc network has shrunk from six months in the first instance, to around two weeks at present.[44] How the implementation of more advanced information resources

will affect ad hoc networks will be discussed in more detail in subsequent chapters.

4.2 PRIVATE SATELLITE NETWORKS

At the other end of the spectrum is the ad hoc network which is put together for a very specific audience. Frequently, these narrower private satellite networks are used by large commercial concerns, usually for distinct marketing purposes. For instance, when new products are launched many large corporations introduce these products to their national sales force via a private satellite network. But this particular application is just the tip of the iceberg. The development of private satellite networks for timely commercial communications is rapidly growing as they prove their value in a number of areas. It now costs about $500 an hour for satellite transmission of private programs. Five years ago it cost $5000.[45] Large corporations have moved quickly to take advantage of these economies as have consortiums of educational institutions. Five years ago there were four private satellite networks, now there are over thirty.[46] In a sense it could be said that information systems and private satellite networks are creating an international "business college" where information and ideas can be easily researched, stored and exchanged. Here is a particularly instructive case study

of just such a network by William F. Walters of Merrill Lynch.

> Private satellite network events--subsequently packaged for cable costs--are now a regular feature of our marketing program. Our first experiment took place in 1981. As a result of the confusion surrounding changes in the federal tax laws, we saw an opportunity to provide a valuable service to our investor market. We scheduled a teleconference that would emanate from New York to the thirty-four cities around the country. The conference provided analysis and interpretation of the effects of the new tax laws for investors, and featured several of Merrill Lynch's top experts.
>
> The teleconferencing was staged in a major hotel in each city and announced through newspaper advertisements in each market. Nationwide, twenty thousand people attended. A live feed to various cable systems reached another potential four to five million people. The video presentation was followed by a question and answer session orchestrated by local Merrill Lynch representatives in each city. The success of the venture--in terms of audience impact--was immense.
>
> (As it happened, this event was scheduled on a night when President Reagan subsequently chose to make a nationwide television address, covering, in part, the same subject of tax law changes. Faced with the costly prospect of cancellation, we discovered that CBS was operating the pool feed for other networks. We contacted CBS and requested a feed to the Merrill Lynch network. CBS demurred until we persuaded them that this ad hoc network met the definition of network. And for a modest fee, we carried the President's broadcast on our satellite and cable network--with a Merrill Lynch commentator in lieu of Dan Rather. The President's address appeared fortuitously within the Merrill Lynch program, with post-address commentary delivered by Merrill Lynch economists and experts. This phenomenon was in turn covered by a number of local independent stations and network affiliates, as well as newspapers in the thirty four cities. From lemons came wonderful lemonade.)

> We learned from the experience that the private cable network system was a useful format. And by the timeliness of the subject addressed--and the exposure of the audience to some of our top Wall Street "stars"--we were able to offer our market a new value dimension. Yet, however successful in terms of good will and good press, that first satellite network trial produced little response in terms of new business.
>
> Response or interaction with information is a very delicate consideration for Merrill Lynch. It is self-defeating simply to give away so much information that the audience is motivated to circumvent Merrill Lynch and go to a bank or discount broker. In the same vein, we seek a measured response from communications through interactive video systems; we do not want to sell products electronically, or encourage investors to bypass their account executives. We conjectured that the initial satellite experiment failed to yield a measurable response because the topic--the change in tax laws--provided useful information to valued customers, it did not present a present problem that Merrill Lynch could solve immediately and directly. In other words, our advertisement did not give the audience any means of response.
>
> As a result, our second satellite network experiment was structured differently. The title was "Strategy for High Yields." And invitations were issued only to individuals who had $10,000 or more in a Merrill Lynch Money Market Fund. The ad hoc network consisted of twenty-six cities throughout the country, and it drew an audience of seventeen thousand. The format was identical: a presentation by top Merrill Lynch representatives at each location. The result, however, was quite different. More than 34 percent of those who attended bought an investment product from Merrill Lynch as an immediate and direct result of the satellite presentation.[47]

The Merrill Lynch experiments around private networks continued. In 1985 an in house private network, linking 15 offices with two weekly seminars chaired by marketing and investment experts, was established. One covered the retail trade, and the other institutional investors. Sales

in these offices rose by 50%. This year the network is being enlarged to serve all 500 Merrill Lynch offices in the U.S. and abroad.[48]

Other large corporations, such as IBM, Xerox, Motorola, Metropolitan Life, and Eastman Kodak are all spending tens of millions of dollars equipping studios and installing satellite link ups. National Technological University is a consortium of 18 universities based in Colorado.[49] The Association for Media Based Education For Engineers is a consortium of 33 universities that broadcasts 30 hours a week from Atlanta.[50] The courses offered vary from extremely narrow courses on aspects of current scientific interest, to courses on memory improvement and telephone sales technique. The costs vary from $3000 to $500 per course which vary in length from 11 to 2 weeks.[51]

The success of these in house and academic networks has encouraged private networks in other areas where access to up to date in depth research is important. Continuing Legal Education, Bank Net and other business programming services are in the process of being established. The Investors Research Network has already been established. Investors Research Network is designed for those institutional investors who trade over 60% of all securities. While this may seem a very narrow market, high

prices make it worthwhile. The cost of the service is $12,000 a year per customer.[52] Corporate broadcasts on the service, which must be booked five days ahead of time cost $10,000 an hour.[53] While this service is not yet a year old, its growth has been faster than projected, and it is now an established voice in the financial community.[54]

These networks are automatically linked to both an electronic program guide printer, and a VCR. This means that programming can be scheduled at the last minute to keep pace with the most recent events, and that the program is kept available even if the customer cannot view it when it is broadcast. How these networks will develop will depend to a large extent on the innovative spirit of various segments of the business world. There are a number of factors which would encourage this type of programming.

First, it is a communications tool that has proved its effectiveness. It is a very efficient way to communicate quickly to a select audience, an attribute that has always been central to commercial success and will probably become more valued in the future.

Secondly, the technology itself is not only "user friendly", it is, in many cases, "transparent technology". That is to say that the system is so automatic, the user

does not see the process. The television and VCR are turned on and off automatically by the broadcaster. The electronic program guide printer is also turned on by the broadcaster. The video tape can then be viewed where it is convenient and shared with other interested groups. Even when participating actively via an audio hook up, the telephone technology will clearly present few problems. Active use of an in house network could also reduce expensive travel budgets and save travel time.

But the main interest in these private networks will probably come from competitive pressures rather than the sheer practicality of the technology itself. It will come from a requirement to remain "in the game"--in house satellite reception will become as necessary and commonplace as telex. And secondly, just as televised communications have changed the way ideas and products are sold to the mass audience, they will change the way business sells to business. Those that come to terms with this technology earliest will be the furthest ahead.

Due to the nature of the Canadian economy, with its service industries and natural resources, there are many opportunities for private networks originating programming in Canada. Many Canadian industries sell to business rather than to the consumer. Private networks not only

provide an ideal basis for this kind of marketing, but will put those sponsoring such networks in the forefront of business communications internationally. Business programs on conventional broadcast television have traditionally been a poor relative, with very small audiences. However, those programs that are well produced attract a surprisingly large audience. Wall Street Week is the most successful show on PBS. Venture on CBC has done reasonably well in its new Sunday time slot. It is fair to assume then, that if the private networks can provide the audience, production values will improve, and sponsorship will increase. The problem arises in putting value on this kind of programming. The cost per thousand measurement of broadcasting becomes meaningless in this environment. The products and ideas that are being put across are ones that will involve enormous sums of money, and hold sway over corporate fortunes and reputations. Evaluating this type of service, and assessing its usefulness will require new methods of measurement.

Looking at the growth of ad hoc network programming at both ends of the spectrum, it is clear that there are a number of novel distribution structures evolving that are both promising and challenging. Limited experience has already provided valuable insights. Both Operation Prime Time and Merrill Lynch have been successful in this area

and identified fundamental principles on which to build future improvements. But regardless of how well these principles are understood, they will have to be implemented--as the words ad hoc suggest--under time pressures and in the face of novel and unforeseen circumstances. The electronic publishing that information systems provide, will give participants the best hope of smoothing over whatever problems arise in these complex and hectic circumstances. Communicating ideas, on an efficient, timely basis is clearly central to success here. Exactly how information systems can be used to further various kinds of ad hoc networks is a subject for the second part of this thesis.

5.0 PAY TELEVISION, THEATRICAL RELEASE AND VCR

In recent years the difference between drama production for television and drama production for theatrical release has become eroded. Feature production has always counted on revenues from television rights, but by 1984 the revenues a feature film generated from ancillary uses surpassed the amount it earned from theatrical release. This is to say that the average film made more money from the sale of television rights, pay television rights, and video cassette sales than it did from the box office. So while a feature film is still ostensibly made for the screen, in reality other television markets are becoming far more lucrative. These ancillary markets are continuing to grow as is indicated by the estimates in Table 5.1. Just how quickly they do in fact grow, will have a direct bearing on how this type of programming is made and marketed. The relationship of pay television to feature film has crystalised to some extent over the past few years. VCRs, on the other hand, continue to be described as the "loose cannon" of program distribution and are generally considered a threat, drawing audiences from theatrical release, broadcast, and pay television.[55] To understand this changing relationship between television and theatrical release, it will help to

TABLE 5.1

Film industry percentage shares of revenue by source: estimated and projected, 1980, 1985, and 1990

	1980	1985	1990
Theatrical total	78.5	47.0	38.0
Domestic	45.8	30.0	23.0
Foreign	32.7	17.0	15.0
Cable			
Pay channel subscribers	5.0	16.4	19.0
Pay per view		1.5	4.0
Network television	6.3	4.3	3.0
Syndication and other TV	9.0	7.8	5.0
Home video	1.2	23.0	31.0
Total	100.0	100.0	100.0

look at the relationship of pay television and the film industry, and then speculate on the impact of VCRs.

5.1 PAY TELEVISION

The past ten years have seen pay cable services growing from a tentative and insecure position to one of established success. Projections for pay cable revenue for 1990 have been as high as $8 billion.[56] As subscription rates have flattened out over the past few years, this is probably an optimistic figure, but there is no doubt that pay television is here to stay, and that it will continue to grow. This growth, however, is primarily hampered by a program supply problem. How the pay services come to resolve this problem will have a direct impact on how programming is marketed. At the present time the pay services are having trouble both producing material that appeals to subscribers and finding investors to put up money to create this programming.[57] The cost of producing first rate movie entertainment has outstripped their ability to produce revenues. Before looking at ways in which this impasse can be broken, it will help to understand the underlying causes of the problem. This is best explained with a brief commercial history of the pay services and their foremost program suppliers, the Hollywood studios.

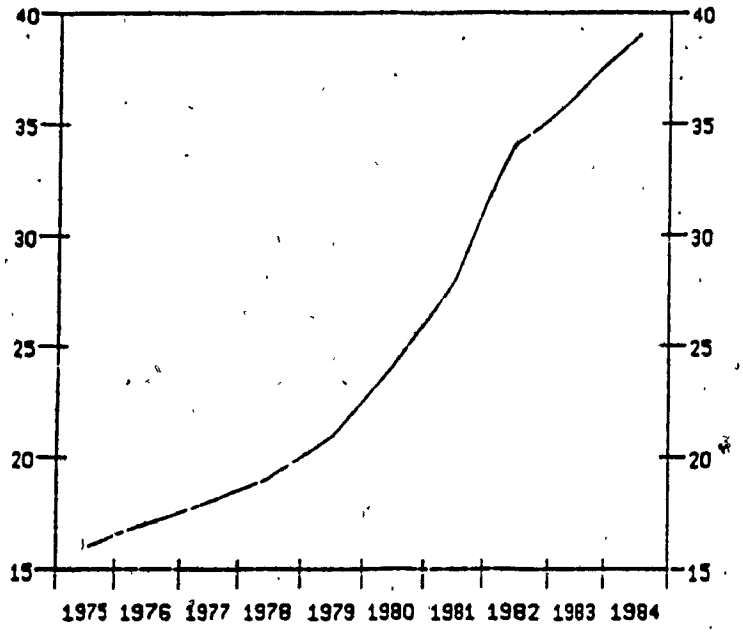
In the early 1970's, Federal Communications Commission regulations on cable programming eased and national satellite link ups between cable systems became possible. As is shown in Figures 5.1 and 5.2, this resulted in better quality programming and growing audiences. Home Box Office (HBO), helped by a two year head start on its competition and good satellite position giving it channels on 2/3 of all operating cable systems, became profitable in 1977.[58] In 1982, HBO made a profit of between $75 an $80 million for its parent company, Time Inc.[59] The only real competition HBO has is Showtime and the Disney channel. With its valuable inventory of children's programming and its highly profitable theme parks, Disney will be in a position to compete at a loss for some time to come. HBO's early domination of the market allowed it to pick up film inventory and film rights at low prices. These low prices and the slowness with which the other home video systems were coming into effect, forced the abandonment of many of the new production companies which had been brought into being by the prospect of the vast programming requirements of pay television and the other home video distribution technologies. Here is a list of some of those companies:

Filmways, which combined with Orion pictures

Mel Simon productions

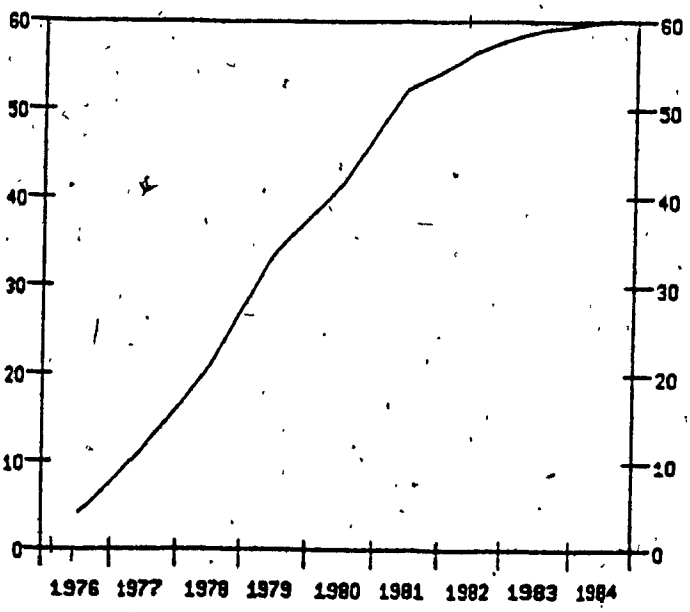
Lorimar, which no longer is in feature film production

FIGURE 5.1



Basic-cable subscribers as a percentage of total television households, 1975–84.

FIGURE 5.2



Pay-cable subscribers as percentage of basic-cable subscribers, 1976–84.

Zoetrope, which has also been put on hold

CBS theatrical films

RKO General

EMI films

Associated Film Distributors and its associates,

Marble Arch Productions

Polygram Pictures

International Film Investors[60]

If these production houses failed to get off the ground, it wasn't because they misinterpreted the potential, but only the risks. The established studios and HBO saw the potential, but have managed to defray the risks by using other people's money. Until the 1970's, the major studios financed their productions internally. At that time, financial hardship forced them to go public for their investment. In the last few years, as studios and HBO began to look for ways to lessen risks until the exact commercial potential of the new distribution technologies became clear, these outside partnerships began to proliferate. These limited partnerships have been strongly criticized for both the large brokerage fee involved--commonly 8% to 10%--and the inequitable position they provide for the investor.[61] According to Larry Scherzer, co-chairman of the Entertainment Industry group of Arthur Young and Company, the largest accounting firm,

these limited partnerships were marketed to the unsophisticated investor for $4500 a unit. These deals were clearly stacked in favour of the studios.[62] Using these questionable deals; SLM Entertainment Ltd. raised $40 million in public money for MGM/UA Entertainment Company. Delphi Film Associates brought Columbia Pictures for $11 million in two offerings. Others, such as Cinema Group Partners, Cinema Investors and Aurora Films Partners have financed both studios and independent producers. None of these partnership have yet proved profitable. SLM lost $4.5 million on each of its first five films.[63]

One of the most criticized offerings was HBO's Silver Screen Partners. This offering, which raised $83 million of a hoped for $125 million was characterized as a ten year interest free loan to HBO.[64] It allows HBO to choose which films will be made, giving HBO all pay rights and a share of network rights in return for a share in the other profits and a guarantee that all that money invested will be returned in 9 years. The productions that have been undertaken so far have little potential beyond television, giving the investor little hope for a profit. "A Carol Burnett and Elizabeth Taylor television movie, is still a television movie", is an observation that is commonly volunteered by broadcast executives when analyzing the future release potential of Silver Screen Partners

productions. One incompatibility in the pay television /theatrical release structure is highlighted here. Most of the films which were sold to the "unsophisticated" limited partnership investors and the ones made by HBO, are aimed at an older television audience: those who have money to invest and watch pay television. The films which could be considered to have good box office potential, those aimed at the 15 to 24 year old audience, which is by far the largest audience for theatrical release, as indicated by Table 5.2, were kept out of the limited partnership deals by the studios. The result of these inequitable deals, and the disenchantment of the "unsophisticated" investor, has been a fairer structuring of some new deals, and the introduction of larger, shrewder investors in the $100,000 to $500,000 range.[65] Regardless of how equitable the partnerships are that are finally put into place, the present pay television /theatrical release structure has a number of fundamental problems, such as the age compatibility of audiences that will not be simply resolved.

If the difficulties of the new services were a mystery to many small production companies and "unsophisticated" investors, and to the advantage of HBO and the major studios, they were not beyond the wiles of Hollywood's major creative management agencies. HBO claims

TABLE 5.2

Frequency of motion-picture attendance, 1981–3

Admissions by age groups

Age (years)	Percentage of total yearly admissions 1983[a]	1982	1981	Percentage of resident civilian population (as of 1/83)
12–15	13	12	16	7
16–20	25	25	24	11
21–24	16	14	15	9
25–29	14	13	13	11
30–39[b]	18	16	17	18
40–49	6	8	6	12
50–59	3	5	5	12
60+	4	6	4	20
Total	100	100	100	100
12–17	27	22	26	11
18+	73	78	74	89

Frequency of attendance (%)

Frequency	Total public (ages 12+) 1983	1982	1981	Adult public (ages 18+) 1983	1982	1981	Teenagers (ages 12–17) 1983	1982	1981
Frequent[c] (at least once a month)	23	26	25	20	24	22	54	49	50
Occasional (once in 2–6 months)	32	29	29	32	29	30	30	30	32
Infrequent (less than once in 6 months)	9	9	10	10	10	10	4	9	5
Never	36	35	36	38	36	38	12	11	12
Unreported	<0.5	1	<0.5	<0.5	1	<0.5	0	1	1

[a]The total number of moviegoers ages 12 and over slipped moderately from 123.6 million in 1982 to 121.6 million in 1983.

[b]The bulk of motion-picture admissions continues to be generated by those moviegoers under age 40, accounting for 86% of total yearly admissions.

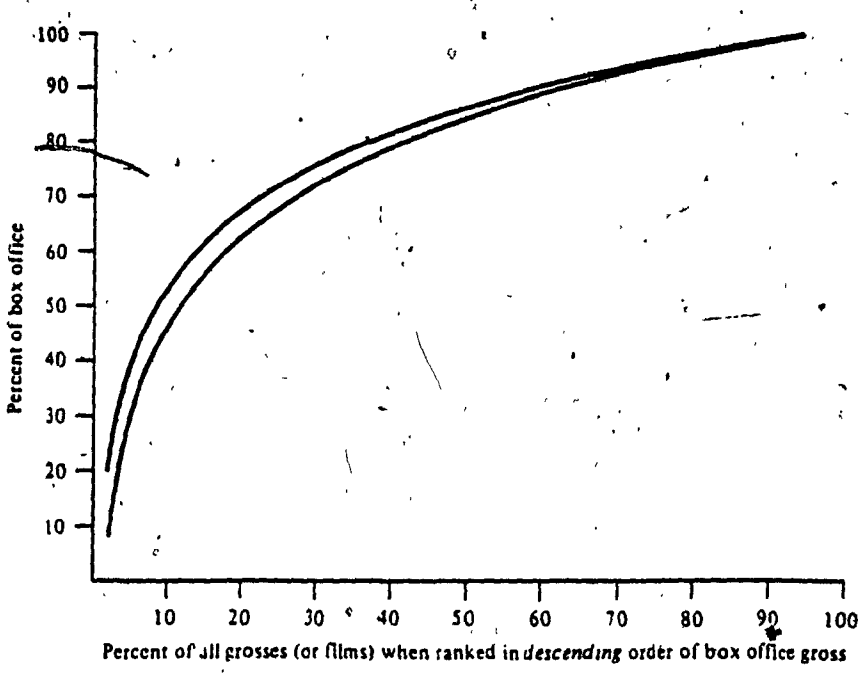
[c]Frequent moviegoers constitute only 23% of the public ages 12 and over, but account for 84% of admissions.

Source: MPAA study conducted by Opinion Research Corp.

to require 440 new titles a year. Hollywood produces around 200 major releases. This projected increase has inflated the prices charged for name talent at boom town rates. Sylvester Stallone has negotiated a $12 million single film contract, Dustin Hoffman and Robert Redford are asking $5 million each. Other less well know but bankable actors and directors have proportionately raised their fees from $1 to $2 million.[66] With this type of expense involved a film can no longer make money as a hit, it must be a blockbuster. As Figure 5.3 indicates, the odds against a highly profitable film are at least 10 to 1, and the odds against a blockbuster are around 50 to 1. Presuming that HBO is prepared to underwrite 20 feature productions a year with name talent as a loss leader, that still leaves 420 movies to be financed primarily on the basis of a theatrical release. This brings the analysis to the most serious drawback in the present pay television/theatrical release structure--a highly inadequate theatrical distribution system.

In 1983, it looked as if HBO was going to be a very large success with projections of a 400% growth rate over ten years and of requirements for film that was twice Hollywood's production rate.[67] HBO began to invest heavily in films. HBO invested along with Orion, Columbia and CBS in acquiring the exclusive pay television rights on 28 to

FIGURE 5.3



Ten percent of films generate 50% of the box office. When film box-office figures are ranked (either by individual weekly grosses or by individual films in order of their box-office grosses), the results fall in the range shown by the plotted curves. *Source: Daily Variety*, July 31, 1984. Copyright 1984 by A. D. Murphy.

34 features.[68] In 1983 with Showtime, The Movie Channel and The Disney Channel about to come into existence, HBO foresaw the end of its monopoly position with the studios and went directly into production with Silver Screen Partners. With the limited success of this partnership offering, HBO is back in the market for exclusive and non exclusive pay television rights, but now faces competition. Moreover, the available inventory has been devalued by audience exposure and no new programming structures have been put into place. HBO may encourage producers with the glib prospect of a requirement for 440 new titles annually, but it is apparent that theatrical distribution cannot handle half that many. And with the present demand for blockbusters, there will be room for far fewer, more modest productions. As shown by Tables 5.3, 5.4 and Figure 5.4, there are around 20,000 screens in the U.S but only around 3,500 of those screens qualify as top earning locations. A blockbuster requires 900 to 1200 prints in release.[69] At present the average release is shown on around 80 screens. As illustrated by Tables 5.3 and 5.4, over the past twenty years the effects of this bottleneck have been an increase in advertising spending of 12.5% while ticket prices have increased by only 6.5%. With more products coming into the market-place these forces will spiral. With more and more films aspiring to blockbuster proportions, it will be far more difficult for other films, without huge advertising

TABLE 5.3

Year	U.S. number of admissions (billion)	Avg. ticket price ($)	Total no. of releases	New	Reissues	Number of domestic screens			Average per screen		Screens per release
						Total	Indoor	Drive-in	Dom. box office ($)	Admissns.	
1984	1.199	3.36	259	203	56	20,200	17,368	2,832	199,554	59,356	78.0
1983	1.197	3.15	276	232	44	18,884	16,032	2,852	199,428	63,387	68.4
1982	1.175	2.94	247	208	39	18,295	15,117	3,178	188,740	64,225	74.1
1981	1.067	2.78	239	199	40	18,144	14,790	3,354	163,470	58,807	75.9
1980	1.022	2.69	235	193	42	17,675	14,171	3,504	155,530	57,822	75.2
1979	1.121	2.52	214	188	26	17,095	13,439	3,656	165,019	65,575	79.9
1978	1.128	2.34	191	171	20	16,755	13,129	3,626	157,744	67,323	87.7
1977	1.063	2.23	199	167	32	16,554	12,990	3,564	143,289	64,214	83.2
1976	0.957	2.13	220	190	30	15,976	12,562	3,414	127,441	59,902	72.6
1975	1.033	2.05	233	193	40	15,969	12,168	3,801	132,444	64,688	68.5
1974	1.011	1.89	278	233	45	15,384	11,612	3,772	124,090	65,718	55.3
1973	0.865	1.76	286	248	38	14,650	10,850	3,800	104,027	59,044	51.2
1972	0.934	1.70	317	278	39	14,370	10,580	3,790	110,160	64,997	45.3
1971	0.820	1.65	314	282	32	14,070	10,300	3,770	95,949	58,280	44.8
1970	0.921	1.55	306	267	39	13,750	10,000	3,750	103,927	66,982	44.9
1969	0.912	1.42	251	241	10	13,480	9,750	3,730	95,994	67,656	53.7
1968	0.979	1.31	258	241	17	13,190	9,500	3,690	97,195	74,223	51.1
1967	0.927	1.20	264	229	35	13,000	9,330	3,670	85,385	71,308	49.2
1966	0.975	1.09	257	231	26	12,930	9,290	3,640	82,521	75,406	50.3
1965	1.032	1.01	279	257	22	12,825	9,240	3,585	81,248	80,468	46.0
CAGR[d]	0.8%	6.5%				2.4	3.4	−1.2	4.8	−1.6	
Avg.			256	223	34						62.8

Note: In traditional industry parlance, the term *domestic* includes U.S. and Canadian rentals. In this table, *foreign* includes Canada.

[a]Totals may be affected by rounding.

[b]Motion Picture Association of America (MPAA) rentals are assumed to be about 95% of total U.S. rentals. Remainder is from non-MPAA-member companies.

[c]Rentals percentage for U.S. is understated by 1%–2% because state admissions taxes are not deducted from box-office figures.

[d]Compound annual growth rate, 1979–84 (%).

Source: Variety and *Daily Variety* as based on MPAA–MPEAA data.

TABLE 5.4

Marketing expenditures[a] for major film releases, 1970–84

	Releases			Advertising[a]					
Year	Total	New	Reissues	Total	Net. TV	Local TV[b]	Newspaper	Spot Radio[c]	Average ad spending per picture[a]
1984	259	203	56	899 3	167 2	85.8	632 6	13.7	3.47
1983	276	232	44	831.8	133.2	97.9	592.0	8.7	3.01
1982	247	208	39	767 1	109 6	90 4	554.4	12.7	3.11
1981	239	199	40	726.1	112.5	99 4	501 3	12 9	3.04
1980	235	193	42	703 8	103.3	102.4	486.1	12.0	2.99
1979	214	188	26	600 1	64.1	94.2	433 6	8.2	2.80
1978	191	171	20	513 4	44 9	72.2	389 5	6 8	2.69
1977	199	167	32	410 0	30 7	55.1	321.1	3 1	2 06
1976	220	190	30	372 5	14.8	64.1	291.8	1 8	1.69
1975	233	193	40	341 4	13.4	59.3	267 7	1 0	1.47
1974	278	233	45	296.4	10 4	55.9	229.1	1.0	1.07
1973	286	248	38	254 3	6 0	30 8	216 5	1.0	0 89
1972	317	278	39	236 6	4 0	23.6	208 0	1 0	0.75
1971	314	282	32	223 7	3 9	21 6	197.7	0 5	0.71
1970	306	267	39	207.7	3 9	15.5	187 8	0 5	0 68
CAGR[d]				11 0%	30 8%	13 0%	9.1%	26 7%	12.4%

[a]In millions of dollars; excludes print costs and other advertising

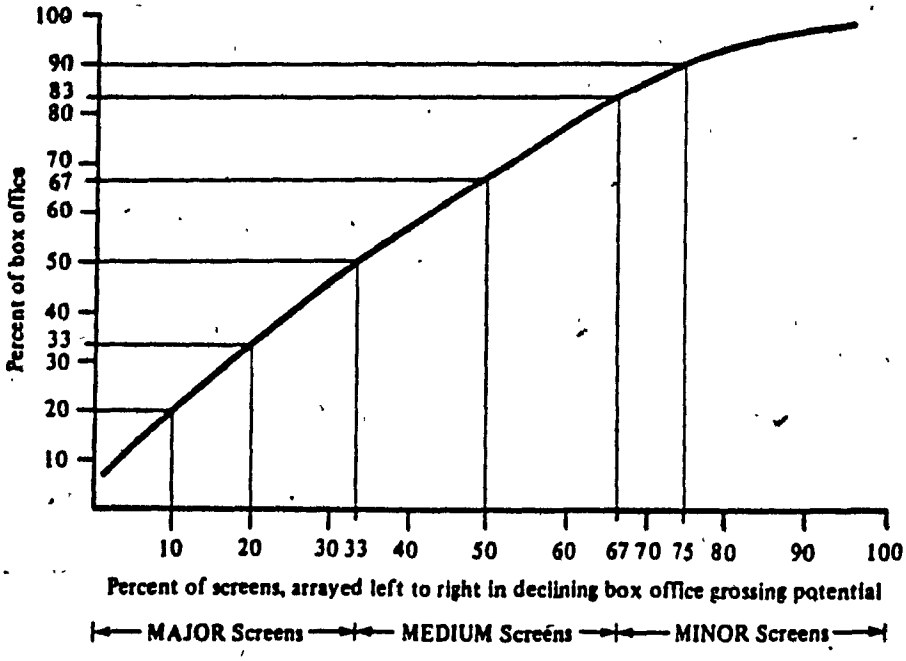
[b]Adjusted for Barcume assumed factor of 0 83 for years prior to 1978.

[c]Actual figures not available before 1974; series was extrapolated to prior years by assumed implicit GNP deflator factor.

[d]Compound annual growth rate, 1970–84 (%).

Sources: Television Bureau of Advertising, Radio Advertising Bureau, McGavren Guild Radio, Newspaper Advertising Bureau.

FIGURE 5.4



Domination of box-office performance by key U.S. movie theaters.
Source: Variety, July 7, 1982. Copyright 1982 by A. D. Murphy.

budgets, to justify stays in theatrical release long enough for word of mouth approval to bring the success they might otherwise have. The net result will not be 440 films in theatrical release, as H.B.O. seems to imply is possible. The result will be a distribution system that is used to handling 200 major releases, being taxed by an over abundance of films with 1200 prints in release, being pushed by huge advertising campaigns. This will force the exclusion of many titles from distribution causing a net decrease in theatrical releases. In the words of Barry Diller, chairman of Paramount Pictures Corp., this predicament will result in a "three-year nosedive that will take another two years to get over".[70] Whatever solution that the pay services find to their present programming dilemma, it will probably be further and further away from the pay television/theatrical release structure that gave H.B.O. its meteoric start. Even if theatres are built to accommodate more releases, the theatre going audience is finite, and with more video diversions available at home and elsewhere, it is more likely to decrease than increase.

There are three ways the major pay services can begin to hedge against the pressures brought on by the present structural problems in the feature film business and increased competition. They can increase their revenues with advertisements; they can make less expensive "made for

pay" programming; or they can try to defray production costs by participation and foreign productions which bring in strong presales in that particular foreign market.

Advertising agencies would be willing to pay a premium to advertise on pay television which has taken a large segment of the young and affluent away from the networks and their advertising. The major pay services have so far decided against carrying advertising, and it is unclear just how much they could carry without sacrificing their distinctiveness to the advertiser supported networks. Presumably they would not advertise during the entertainment feature, advertising only between features. To help audience acceptance, the advertising itself would have to be more subtle than the networks', less repetitious and more gratifying. David Poltrack, who was vice-president of marketing at CBS from 1979-83, believes in the near future they might accept infomercials, which would be informative, entertaining clips between features that would have minimal sponsorship identification, but put the sponsor in a favorable light through identification with the subject matter. Some examples are:

- A series of scenes from a new film promoting the film.

- A video clip of a cut from a new album by a group or individual performers.

- A great moment in sports sponsored by a brewery or automobile company.

- A fashion report sponsored by a retailer.

This type of inventiveness may even be able to upstage some of the entertainment features but, nevertheless, it will be a limited source of revenue. Calculated at the projected rate of penetration of $45 million in 1990, the maximum income would be about $1,725,000 per day or $620 million per year.[71] This amounts to only 10% of the projected subscriber revenues of $5 to $8 billion. Since even "infomercials" would probably put the first advertising pay service at a disadvantage, advertising revenues could well cost more than they bring in to the service which initiates them.

"Made for pay" television movies and series would have to offer something to audiences they do not get from the networks. There has been some suggestion that the pay services are using more violent story lines and direction, and dealing with sexual matters more directly. It is questionable how far this trend can succeed and still

maintain the interest of mainstream viewers. But regardless of what pay services identify as their audiences' interests, the pay services will have to budget for many expensive failures in order to compete successfully in such a speculative business. With little potential after market for "made for pay" it is a risk they will have to take on themselves.

The third avenue is lessening the risk involved by participating in foreign productions which offers greater value through production economies and skills, and a reasonably large presale in that country. This does not provide programming as attractive as feature films, but it does provide distinctive programming at substantially reduced prices. All three of the major pay services are actively engaged in foreign based productions. HBO is involved with Harold Greenburg in Montreal and Robert Cooper in Toronto. It is also involved with London Weekend T.V., Channel Four and Goldcrest in the U.K. In fact, HBO's most original project to date, the $12 million, six-hour mini-series "The Far Pavillions", was produced by Goldcrest and shot in the U.K. and Northern India. Showtime also produced with Goldcrest.[72]

Perhaps one of the most profitable examples to take note of is Henry Crawford's production, "Five Mile Creek",

a co-venture financed 75%[73] by the Disney Channel and 22% by Australian broadcasters. While the majority of the money comes from Disney for this 13-part series, and Disney gets all the rights outside of Australia, the majority of creative input comes from Australians. Some of the major roles went to Americans but the majority of the actors were Australian. Disney has kept creative control of the script, and according to Crawford this has amounted to almost no creative interference. "They accepted our recommendations on the cast, and there has been very little compromise on the script, with only the odd word changed".[74] This differs from much of the Canadian experience with U.S. pay television which has left many with the impression that the only way to have a degree of creative control is to participate as the majority investor. While there is a certain facile logic to this "money talks" principle, it leaves out the most important element: rights. If the U.S. pay channels want to acquire the lucrative U.S. rights, then there must be some trade off, either regarding those rights or creative control or both. Moreover, Canadian producers have a larger home market than Australians and have access to the Telefilm fund.

While the problem of finding a way around the production shortage may be a vexing one for pay television,

the recent success of split screen theatres provides some hope of increasing supplies of feature films over the next few years. Split screen theatres have been pioneered by the Canadian firm of Cineplex Odeon. Cineplex Odeon has taken old theatres and refurbished them so that they contain several smaller screens. So that while this practice does not create new theatres it does create many more screens. And when Cineplex builds new split screen theatres, it does so in suburban areas where the young movie going audience is located. In 1984, Cineplex Odeon had 163 screens in 22 theatres,[75] by 1985 with the purchase of the Plitt theatre chain in the U.S., it became the world's largest theatre chain with 1060 screens in 391 theatres.[76] Confidence and interest in this success has grown to the point that MCA invested $106 million in 1986.[77] In terms of marketing Canadian productions, Cineplex Odeon through its distribution company Pan Canadian has always made an effort to promote Canadian films. Garth Drabinsky, president of Cineplex Odeon, has had a long history of interest in Canadian production and has indicated he foresees no change in company policy in this area.

If split screen theatres continue to provide more screens in first rate locations, they may help moderate the bottle-neck in the theatrical-pay structure. If there is

audience acceptance of these smaller screens as appropriate venues for the release of first rate feature entertainment, then more feature releases become possible. Cineplex Odeon has enhanced other elements of the movie going experience, emphasizing decor and the quality of its refreshments (ie. real butter on the pop corn). If this concept continues to work, then in the more distant future audience acceptance of High Definition Television (HDTV) as an appropriate medium for a theatrical release becomes possible. There is no technical reason why HDTV cannot duplicate the quality of these smaller screens. DBS delivery would eliminate interference and reduce the cost of distribution to a fraction of its present costs by eliminating prints.

But regardless of how these elegant technological marvels streamline feature film production and distribution in the distant future, there is a humbler distribution technology that in its present form may well establish markets for production that will finally permit the new methods of distribution to live up to their vast programming promise. That technology is VCR.

5.2 VCR

VCR, by virtue of the fact that it bypasses the constraints inherent in the pay TV-theatrical release

structure, may well be the key that finally opens up the elusive potential that has so often been foreseen in the new ancillary markets. From a production marketing point of view, perhaps it is best to look at VCR as a second form of pay television. Unlike cable pay television, there are no increasing physical problems to the continued implementation of VCRs. The cable "plant" becomes prohibitively expensive in some urban areas where the cost of building is very high. And the cost of building in less populous areas often does not supply an adequate return on investment. In many foreign markets, the cable infrastructure will not be in place for decades if at all. So while cable growth is leveling out, and will have to contend with some definite limits to its growth, VCR, as indicated in Figure 5.5, will encounter no physical limitations to continued penetration.

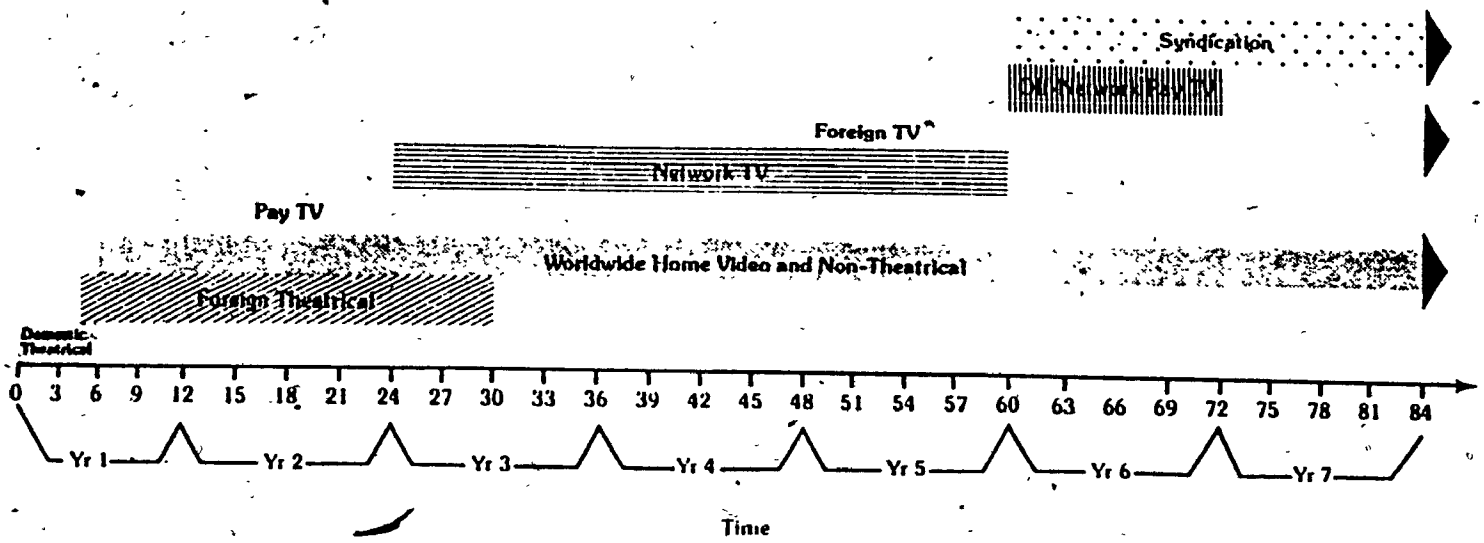
Nor are demographic inconsistencies, or distribution bottlenecks, problems affecting VCR release. Assets can be distributed where they are wanted, and in the numbers they are wanted and, as Figure 5.5 illustrates, unlike both theatrical and pay TV markets, they have a very long revenue earning schedule. While many foreign markets are regulated against imported theatrical releases in some way, regulating against VCR cassettes is very difficult, if not futile.

according to Micheal J. Naples, president of the Advertising Research Foundation, this change will amount to something far more inventive than just more careful research and the tactical use of new television advertising. It will usher in an age of profound change that is as yet unimaginable, as media structures change both in the way they influence consumers and in the way media are evaluated.

> It is now widely accepted that the new technologies will have an enormous impact on the consumer and also on the ways in which most firms do business and conduct research. In research applications thus far, laser scanners, microprocessors, and computers have had a greater positive impact on advertising and market research in the United States. Cable television had a major impact, even before it was considered one of the new electronic media. I believe that satellites, videocassette recorders, video disc players, and other forms of new electronic media including two way or interactive television and videotex are likely to have sizable impacts as well.
>
> ...the impacts of the new technologies on advertising research have been revolutionary, and I am convinced that we are entering into nothing less than a renaissance era of discovery, learning and application as a result.[88]

Whether the net effect of this new distribution and information technology is merely a critical rethinking of advertising spending, or a much more profound restructuring of the industry, will be discussed in detail later. But regardless, a more strategic use of information about audiences and programming will become a requirement of the new television business environment. In practical terms,

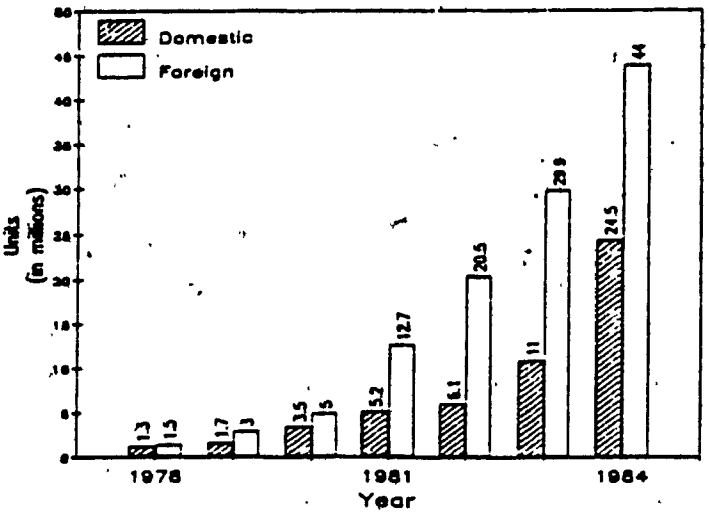
FIGURE 5.5



Flow of revenues by market, circa 1984.

The one structural problem that VCR shares with cable is limited programming. But it is projected that VCR will amount to a market almost as important as theatrical release by 1990. At the present time producers are already making "feature" entertainment for the VCR market with no theatrical release involved. Many low budget productions, such as those created for Channel Four in Britain, cost around a million dollars, and can be widely distributed on VCR cassette in markets that would never support them as a pay or theatrical presentation. If VCR becomes one of the premiere outlets for entertainment programming, the convenience and choice of entertainment it provides could create audiences as large, and with the same demographic diversity, as those that frequented movies before broadcast television (see Table 5.6). It can be argued that this audience was not shared with other home video alternatives. But neither did the pre-1950 movies have immediate access to a foreign market which promises to be two to four times the size of the domestic market which VCRs make possible (see Figure 5.6). Moreover, many experts foresee VCR changing to an 8mm standard by 1990,[78] which would make the technology less expensive. While at present cassettes range in price from $30 to $70, George Matta of Mondovision in Toronto foresees large production volumes will lower prices. He estimates that a general interest instructional cassette selling 400,000 copies could retail for as low as

FIGURE 5.6



Worldwide sales of prerecorded videocassettes, 1978–84. *Source:* Video Marketing (Hollywood, CA).

TABLE 5.6

Average weekly movie attendance in America, 1926–80

Year	Average weekly attendance	Year	Average weekly attendance
1926	50,000,000	1953	46,000,000
1927	57,000,000	1954	49,000,000
1928	65,000,000	1955	46,000,000
1929	95,000,000	1956	47,000,000
1930	90,000,000	1957	45,000,000
1931	75,000,000	1958	40,000,000
1932	60,000,000	1959	42,000,000
1933	60,000,000	1960	40,000,000
1934	70,000,000	1961	42,000,000
1935	75,000,000	1962	43,000,000
1936	88,000,000	1963	44,000,000
1937	85,000,000	1964	*
1938	85,000,000	1965	44,000,000
1939	85,000,000	1966	38,000,000
1940	80,000,000	1967	17,800,000
1941	85,000,000	1968	18,800,000
1942	85,000,000	1969	17,500,000
1943	85,000,000	1970	17,700,000
1944	85,000,000	1971	15,800,000
1945	90,000,000	1972	18,000,000
1946	90,000,000	1973	16,600,000
1947	90,000,000	1974	19,400,000
1948	90,000,000	1975	19,900,000
1949	87,500,000	1976	18,400,000
1950	60,000,000	1977	20,400,000
1951	54,000,000	1978	21,800,000
1952	51,000,000	1979	21,600,000
		1980	19,600,000

*Not reliably reported.

Source: *Reel Facts*. © Random House, Inc.

$10.[79] In any case, it is clear by now that VCR will continue to be a growing market, that will not only change the economics of production but will strongly influence quality and content as well.

If this projection holds true, in the end VCR will not come to be seen as a "loose cannon" threatening the audience's shares of other services. VCR will come to be the financial well-spring that can help finance the broad spectrum of programming which other services in the fragmented market-place find too expensive to produce on their own.

6.0 PBS

Although PBS is not directly affected by the new distribution technologies, it too is going through changes that may provide opportune markets for Canadian production. Indirectly PBS has more to gain from the new distribution technologies than any other programming service, in that the projected ancillary earnings from PBS programming on cable and video cassette may well be proportionately higher than the ancillary earnings of other programs.[80] With federal support cut back, PBS is developing further commercial support by allowing announcements that draw more attention than mere sponsor identification, but do not permit direct commercial appeal or advocacy advertising. These two factors may substantially increase the incentives to corporations to fund PBS programming.

In fact, when the present 100% PBS donation tax shelter is added to other projected ancillary distribution rights, the cost of funding PBS programming can be calculated to be completely defrayed over five years.[81] The interested corporation shelters the investment by leasing the program to PBS and then contributes an equal sum. This gives PBS the program for free, and allows the corporate sponsor to save half of the worth of that donation by sheltering it from a 50% corporate tax rate.

Since PBS is allowing its programming to be carried on cable, an immediate cable sale would be possible. Analysts also predict a strong video cassette market for the informative and "classic " PBS programming.

Presumably, the lease/donation tax shelter would be applicable to Canadian programming. If the corporation were registered in Canada, then presumably the Capital Cost Allowances could be used in the creation of the programming. With the participation of Telefilm and a Canadian broadcaster, the corporation's risk would be virtually nil.

7.0 SUMMARY AND CONCLUSION PART 1

Fragmentation has encouraged programmers and producers in the U.S. to look elsewhere for programming and production partners. The major networks are now willing to consider foreign proposals. The Canadian production "Night Heat" is the first Canadian series to run regularly on U.S. network television. With network audiences slowly being eroded by the newer distribution channels, the real possibility of a fourth network, and declining sales, networks will look at foreign production more seriously. As major corporate sponsors consider the economies of producing their own programs, the greater economies inherent in Canadian produced specials will be attractive to them.

Ad hoc networks and private satellite networks will continue to become a more prevalent feature of fragmentation. The ad hocs have shown a ready interest in foreign programming and will continue to require programming that is already presold in foreign markets to help make costs more manageable. Private satellite networks are just beginning to develop their potential. If the most recent projects are indicative of their effectiveness, then they will become a far more popular and polished advertising medium. Their ability to put ideas

directly to opinion leaders, will be attractive to those that have new products and plans to sell directly to small groups in industry and in government. They should be particularly useful to resource-based industries, service industries, and others that deal with a small number of major customers in increasingly competitive market-places.

Pay cable and VCR will continue to be expanding markets for theatrical productions, and provide important ancillary markets for documentary and "classic" programming that might also interest PBS. As pay cable profits decrease, their interest in outside co-productions will grow. VCR penetration continues, and will provide a correspondingly important market. PBS, with increasingly limited funds, will also continue to be interested in high quality programs that are presold elsewhere.

But how opportunities are eventually exploited in the new fragmented market-place, will have as much to do with how this market-place is interpreted and approached, as with its programming possibilities. Fragmentation will cause fundamental structural changes in how business is carried out. It is apparent that the largest advertisers may well have to depend more and more on their own skills, and less on advertising agencies and the networks to do well in the future.

Changing lifestyles are threatening market shares of many established products. Many new products and services are coming into the market-place. Potential market growth now exists in countries that, until recently, had been of no real commercial importance. All this will cause advertisers to look much more closely at their media purchases and policies. Analysis in this area will become more sophisticated and intense as the requirements for more advertising in a more complex set of circumstances confront budgetary limitations. The opportunities provided by the fragmentation process for more and different kinds of television programming will continue to grow. But as these opportunities increase, the buyers will also become far more critical. To deal with this market effectively will require a more detailed and thoughtful approach. Just how this kind of new information management is being developed by marketers, advertisers and the television industry in general, is the subject of the second part of this thesis.

8.0 INTRODUCTION PART II: INFORMATION SYSTEMS AND TELEVISION MARKETING

There is certainly nothing new in using information about television and radio audiences to judge the market worth of programming. Nielsen and Arbitron in the U.S. have been evaluating audiences since the beginnings of broadcasting. In Canada, the Bureau of Broadcast Measurement and Nielsen have played a similar role. Simmons, Media Information Research and many other smaller firms now supply a variety of analyses as well. There are, however, a series of new and related factors that will eventually precipitate the creation of far more detailed and complex electronic information systems in this area. To begin with there are broad changes that will characterize the growth and implementation of information systems in general. These broad changes are illustrated as "seven strategic transitions" in Table 7.1. This rough scheme of future development created by advanced marketing at IBM, highlights the major transitions that will affect the way individuals come to look at information products over the next two decades. Inherent in these large themes are three more specific changes that will have a direct bearing on the implementation of information systems for the marketing of television productions. The first factor is the present implementation of a new generation of data

TABLE 8.1

Seven Strategic Transitions

	1970s	*1990s*
Primary resource	Hardware	Information
Primary acquirer	DP executive	Individuals
Vendor differentiation	Products	Offerings
Strategic architecture	Hardware	Infrastructure
Fastest growth	Equipment	Services
Future growth	On-line data bases	Noncoded
Primary inhibitors	Hardware cost	Productivity
	Comm. cost	Regulation/public policy
	Complexity	Standards
		Ease of use
		Valuation schemes
		Social impacts
		Complexity

collection technology that will collect much more detailed audience, product and demographic information. The second factor is the continued development of extensive computerized data bases that will make the relevant information about audiences, consumers, products and competitors, far easier to acquire and use. The third, and perhaps the most important factor is the growth of familiarity in large organizations with the value of electronic information systems in the analysis of the market-place. This familiarity is due to the development of information systems in general, and the rapid growth of personal computers as a managements tool.

Electronically stored and distributed information is becoming the basis for managing many types of production. It permits and encourages a complete and up to date picture of a wide variety of situations. It has been said that people cannot be analyzed in compartments--the same is true for electronic information systems. Systems cannot be atomized. In fact, it is the growth of interrelated data bases that will continue to make information systems such a decision making asset. <u>What does define a system is how it can be effectively applied to solving problems</u>. In this case we are talking about marketing problems. When an electronic information system deals with these problems it is frequently called a Market Decision Support Systems

(MDSS). The information available to these systems is very broad in many organizations. For instance, the "just in time" or Kaban system of manufacture in which suppliers must deliver the precise piece at the time of product assembly, reacts directly to orders from the market-place. In that instance it is fair to say that the MDSS is part and parcel of computer aided manufacturing systems and product design systems.

Consultants Charles M. Lillis and Bonnie McIvor working with General Electric, divide that company's MDSS into 13 catagories with many subdivisions and tie ins with other computer systems.[82] They also point out that MDSS have mostly grown out of systems that were first designed to support financial functions within the company.[83] Here is a definition they gave to MDSS:

> ...a coordinated collection of data, systems, tools, and techniques with supporting software and hardware by which an organization gathers and interprets relevant information from business and environment and turns it into a basis for marketing action.[84]

While this definition is some help it is, I think, too technocentric. After all, as pointed out in the introduction to this thesis, it is people that make decisions, not technology. Vincent P. Barabba describes

MDSS with a more distinct emphasis on the human element which, as we shall see, he feels is the central issue.

> An MDSS may be many things, but one set of characteristics that seems to provide real benefits, in terms of better information for better decisions, is the following:
>
> - An organization of people who understand and know how to use both the computerized system and the marketing information; this organization must be competent in several key disciplines including:
>
>   Analytical data processing
>   Data base design
>   Statistics
>   Model building
>   Market analysis
>
> - A computerized system for storing information about selected markets
>
> - Software that allows the organization to retrieve relevant information and to manipulate the information into reports and models
>
> The system elements under the term MDSS technology include the following:
>
> Data acquisition systems
> Data base management systems
> Retrieval/report writing/query processor
> Model bank
> Statistical analysis tools
> Graphics
> Directories between specific data elements and higher-level information classification schemes.[85]

MDSS are becoming more and more a part of the way commercial thinking is organized. While they often grow out of financial systems or incorporate other types of systems, a more relevant and convenient distinction to make is whether the marketing decision served by the system

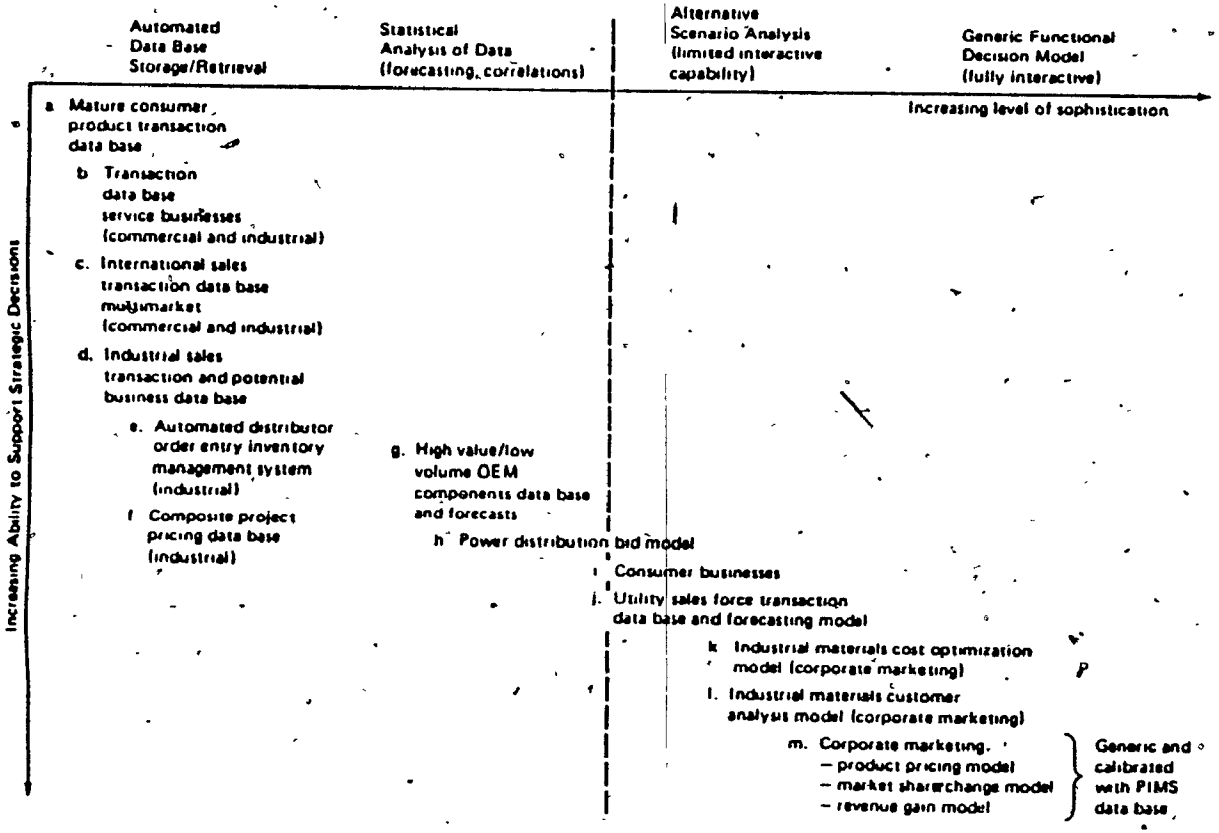
tends to be tactical or strategic. That is to say whether the decisions it assists in making deal with the ins and outs of the marketing of various products, or with the structural dynamics of the market-place itself. In the words of the General Electric consultants:

> These MDSSs, in nearly every form, have a powerful potential for impact on a business's procedures, strategies, and organization. As our thesis has suggested, this generally occurs from the bottom up by aggregating, analyzing, and modelling primary market data, but can also occur at the strategic level, from the top down, with the use of general models that capture key structural relationships in the market. We call these generic modules.[86]

For the purposes of this thesis, whether a MDSS used to analyze structural relationships is called strategic or generic, is unimportant. What is important is the distinction between the tactical and strategic uses of information systems. While industry in general has moved quickly over the past five years to react in a strategic sense to more detailed marketing information, those involved in audience ratings and broadcasting --and who have always responded directly to market information--have done relatively little to improve their information technology and systems beyond the rudimentary tactical level. On the surface of things, this is surprising in an industry that is going through profound structural changes and that abounds in assertions about detailed marketing analysis being the key to the future. The reasons behind

TABLE 8.2

Range of MDSS Capability in GE



this relative lack of initiative will be discussed in detail later. For the purposes of introduction it is sufficient to say that information about television marketing will come to be viewed in a far more strategic sense. Just how far this strategic analysis will go in leading to industry changes is a matter of opinion. David Poltrack, vice president of research at CBS sums up this need for more detailed information in these relatively modest terms:

> ...it seems certain that network television will be a less efficient advertising medium in the years ahead.
>
> Unfortunately for the advertiser, there is no superior national advertising medium on the horizon. Compounding this problem is the fact that the network audience share loss will be incurred largely to pay cable competitors who probably will not accept advertising. As the economy grows and as increased discretionary income makes the U.S. television audience a more and more attractive target, a greater number of advertisers will compete for a relatively fixed inventory of audience impressions.
>
> The advertiser's approach to these network market conditions must be one of careful planning. Greater use will have to be made of fringe dayparts as primetime unit costs continue to increase. Spot television in major markets will have to be used to supplement lower GRP-level network campaigns. Ad hoc networks formed by independent stations will provide a means of reinforcing a national network television campaign base. Finally, teletex will offer the advertiser a means by which to expand a necessarily short network commercial message.[87]

At the very least then, there will be far more strategic analysis on the part of television buyers. But

according to Micheal J. Naples, president of the Advertising Research Foundation, this change will amount to something far more inventive than just more careful research and the tactical use of new television advertising. It will usher in an age of profound change that is as yet unimaginable, as media structures change both in the way they influence consumers and in the way media are evaluated.

> It is now widely accepted that the new technologies will have an enormous impact on the consumer and also on the ways in which most firms do business and conduct research. In research applications thus far, laser scanners, microprocessors, and computers have had a greater positive impact on advertising and market research in the United States. Cable television had a major impact, even before it was considered one of the new electronic media. I believe that satellites, videocassette recorders, video disc players, and other forms of new electronic media including two way or interactive television and videotex are likely to have sizable impacts as well.
>
> ...the impacts of the new technologies on advertising research have been revolutionary, and I am convinced that we are entering into nothing less than a renaissance era of discovery, learning and application as a result.[88]

Whether the net effect of this new distribution and information technology is merely a critical rethinking of advertising spending, or a much more profound restructuring of the industry, will be discussed in detail later. But regardless, a more strategic use of information about audiences and programming will become a requirement of the new television business environment. In practical terms,

the technology itself has yet to be put into place. Nielsen and Arbitron have developed their people meters equipment to just beyond the experimental stage. In Canada, BBM is only just this year discussing the implementation of people meters with its U.S. counterparts. Research on VCR has yet to turn up detailed audience measurement plans in that area. The implementation of MDSS among major advertisers is only in its formative stages. Advertising agencies are just beginning to use this kind of detailed information to formulate media plans. Beyond these present pressures, the continued implementation of electronic money, and electronic inventory control, will give advertisers information about the market that will be increasingly current and detailed. The pressure on media, advertising agencies and research companies to keep pace can only increase. In any case, the question is no longer: will these new information technologies have a profound impact on media strategies? The question is now one of degree and timing.

In summary, while information systems are now being used by many organizations to identify opportunities created by structural changes in the market-place, the television industry has reacted slowly to this possibility. Fragmentation, growing use of information systems among major advertisers, and a continuing trend toward broader

and more detailed market-place information will work to develop MDSS for media purposes.

The second part of this thesis will be divided into two chapters. The first chapter will review and analyze past and present audience measurement services in more detail. It will then look at the new information systems that these services are putting forward. In the second chapter, case studies of marketing information systems will be reviewed with an eye toward the difficulties and possibilities involved in creating MDSS for media and television programming.

9.0 AUDIENCE MEASUREMENT AND NEW INFORMATION TECHNOLOGY

As mentioned in the previous chapter, the major sources of television ratings are Nielsen, Arbitron--and in Canada, the Bureau of Broadcast Measurements and Nielsen. There is no competition with Nielsen on the national level in the U.S. Arbitron does compete with Nielsen on the local level.

The A.C. Nielsen Company was established in 1923, doing basic market research for the growing packaged goods retail market. The Nielsen food and drug index established the company in market research, and when broadcasting became one of the major advertising avenues for these products, Nielsen began to evaluate the effectiveness of that advertising. During the 1940s, Nielsen introduced and perfected the audimeter, which kept track of how a household kept a radio tuned during a given month. This basic technique, with occasional technological improvements, has remained the central element in ratings over the years and continued with the introduction of television. Today Nielsen has 1700 audimeters connected to televisions across the U.S. In addition, Nielsen compiles a 2400 household diary sample.[89]

The meter sample measures a household's viewing patterns. Televisions are equipped with a Storage Instantaneous Audimeter, which records every minute of television use by channel and then feeds this information on a daily basis to a central computer. Daily reports are made available to networks and other subscribers on a one day delay basis. Ratings are further summarized in the "Fast Weekly Household Report", which provides ratings by daypart, rating and share information for each program. This meter sample provides information only on television tuning--not on who is in fact viewing the programming.[90]

Viewing is recorded in detail in 2400 household diaries.[91] These diaries record the viewing of all household members in what is known as an Audilog. An Audilog is provided for each television set in the household. Viewing is recorded on a quarter hour basis. Each television set is also equipped with a Recordimeter, which counts the number of hours the set is used during the week. If there are evident discrepancies between the diary and the Recordimeter, the diary is eliminated from the final sample.[92]

Information from these diaries are combined with information from the 1700 household meters into 17 biweekly reports.[93] The meter samples provide rating and share

information, and the diary information provides the demographic details. These reports are commonly referred to as pocketpieces (due to their pocket size) and the 4 weeks that they are not produced are called "black weeks". Other reports put out by Nielsen are "Market Audience Demographics Report" issued eight times a year, and "Market Section Audience Report" issued nine times a year. The most detailed report is the "National Audience Demographics Report". The cost of these services to the networks is around $8 million a year.[94] They are by far the largest clients, with other clients such as major advertisers and agencies paying according to the size of their billings, the largest running into six figures.[95]

At the local level, Nielsen and Arbitron compete for market research budgets. Nielsen puts out the "Nielsen Station" Index (NSI), and Arbitron puts out "Television Market Reports". While each company uses slightly different units of measurement, they offer more or less the same periodic measurements. Arbitron's Area of Dominant Influence (ADI) is a more established unit than Nielsen's Designated Market Area (DMA), although many other units for measuring local television audience are comparable.

Arbitron began as the American Research Bureau in 1949, doing television audience research in three markets:

Washington, Philadelphia and Baltimore. Arbitron expanded rapidly, reporting on 35 markets by 1953.[96] In 1965 Arbitron began to research radio audiences, and is now the only major researcher in this area. In 1967 the company was bought by Control Data Corporation. It changed its name to the Arbitron Company in 1973 and the Arbitron Ratings Company in 1982.

Arbitron uses several basic units of audience measure, but it is their ADI that is the most widely used and recognized. The number of ADIs varies slightly from year to year as minor changes are made in their make up. Arbitron now defines an ADI as "an area that consists of Arbitron sampling units in which the home market commercial stations and satellite stations reported in combination with them received a preponderance of total viewing hours".[97] It is the ADI, and not the very similar designated market area (DMA) used by Nielsen that is in general use by statistical sources such as the Television Fact Book, the Standard Rate and Data Service, and Media Market Guide. At present there are 211 ADIs in the U.S.[98]. The measurement techniques for these 211 ADIs are similar to Nielsen's. Diaries are used in all markets, with the sample size depending on the size of the ADI market. Smaller markets are measured with 200 to 300 diaries, medium sized markets with 1000 and the largest ten top

markets with 1500.[99] The size of these markets vary widely, with the top ten markets containing 1/3 of all television households, the top 30 over 1/2, and the top 100 over 85%.[100] Arbitron also uses meters in eleven top markets.

As mentioned, the major difference between Arbitron and Nielsen is not in what they measure but in the basic unit of measurement used. All markets are measured for 4 weeks at a time during November, February, May, and July. Selected markets are also measured during October, January and March. These periods are known in the trade as "sweeps".[101] Weekly measurements are given for the largest markets. All surveys are compiled with the use of diaries. The information provided gives demographic and household information broken down into daypart, quarter hour and program.

A discussion of ratings involving the various differences in definitions and techniques, would require an extensive detailed exposition that is not entirely relevant here. What is relevant here is how these major rating services are coming to terms with fragmentation and marketing information systems. In this latter aspect, these rating services are currently going through a period of fundamental change and expansion that will change the

TABLE 9.1

ADI MARKET RANKINGS FOR 1981

Rank	Market	ADI TV households
1	New York	6,410,900
2	Los Angeles	4,140,000
3	Chicago	2,968,100
4	Philadelphia (Allentown & Wildwood)	2,385,800
5	San Francisco	1,959,000
6	Boston (Manchester & Worcester)	1,878,600
7	Detroit	1,661,400
8	Washington, D.C. (Hagerstown)	1,465,800
9	Cleveland (Akron & Canton)	1,394,800
10	Dallas–Ft. Worth	1,360,800
11	Houston	1,276,400
12	Pittsburgh	1,224,900
13	Miami (Ft. Lauderdale)	1,106,200
14	Minneapolis–St. Paul	1,094,200
15	Seattle–Tacoma (Bellingham)	1,087,000
16	Atlanta	1,085,800
17	St. Louis	1,024,300
18	Tampa–St. Petersburg	937,800
19	Denver	874,900
20	Baltimore	862,900
21	Sacramento–Stockton (Modesto)	811,400
22	Indianapolis	796,700
23	Portland, OR	788,300
24	Hartford–New Haven	785,000
25	Phoenix (Flagstaff)	731,000
26	Cincinnati	702,800
27	Kansas City	696,700
27	San Diego	696,700
29	Milwaukee	678,700
30	Nashville	655,700
31	Buffalo	608,000
32	Charlotte (Hickory)	606,400
33	Orlando–Daytona Beach	597,500
34	New Orleans	588,400
35	Columbus, OH	580,600
36	Memphis	570,200
37	Grand Rapids–Kalamazoo–Battle Creek	565,900
38	Greenville–Spartanburg–Asheville	551,000
39	Providence–New Bedford	548,900
40	Raleigh–Durham	548,400
41	Oklahoma City	533,100
42	Louisville	524,000
43	Charleston–Huntington	521,600
44	Salt Lake City	513,100

TABLE 9.1 CON'T

ADI MARKET RANKINGS
FOR 1981 *(Continued)*

Rank	Market	ADI TV households
45	San Antonio	491,900
46	Norfolk–Portsmouth–Newport News–Hampton	485,900
47	Birmingham	480,700
48	Dayton	472,500
49	Wilkes-Barre–Scranton	461,900
50	Albany–Schenectady–Troy	457,400
51	Greensboro–Winston Salem–High Point	451,700
52	Harrisburg–York–Lancaster–Lebanon	445,500
53	Flint–Saginaw–Bay City	442,400
54	Little Rock	440,400
55	Shreveport–Texarkana	429,700
56	Richmond (Charlottesville)	428,300
57	Tulsa	422,900
58	Wichita–Hutchinson	408,400
59	Toledo	401,200
60	Knoxville	395,700
61	Mobile–Pensacola	387,500
62	Jacksonville	369,100
63	Des Moines	359,600
64	Fresno (Hanford & Visalia)	358,900
65	Roanoke–Lynchburg	352,200
66	Syracuse	350,500
67	West Palm Beach (Ft. Pierce–Vero Beach)	349,000
68	Green Bay	347,800
69	Omaha	336,800
70	Albuquerque	333,500
71	Rochester, NY	329,900
72	Portland–Poland Spring	322,300
73	Davenport–Rock Island–Moline/Quad City	322,000
74	Paducah–Cape Girardeau–Harrisburg	320,900
75	Spokane	320,300
76	Springfield–Decatur–Champaign	314,000
77	Cedar Rapids–Waterloo (Dubuque)	313,500
78	Bristol–Kingsport–Johnson City	286,000
79	Lexington (Hazard)	285,700
80	Chattanooga	280,300
81	South Bend–Elkhart	277,200
82	Springfield, MO	274,900
83	Johnstown–Altoona	274,400
84	Jackson, MS	271,300
85	Tucson	255,600
86	Lincoln–Hastings–Kearney	247,700
87	Columbia, SC	242,100

TABLE 9.1 CON'T

ADI MARKET RANKINGS
FOR 1981 *(Continued)*

Rank	Market	ADI TV households
88	Evansville	240,900
89	Baton Rouge	240,300
90	Huntsville–Decatur–Florence	239,500
91	Youngstown	233,300
92	Austin, TX	229,300
93	Springfield, MA	227,000
94	Ft. Wayne	219,400
95	Peoria	218,600
96	Lansing	213,900
97	Sioux Falls–Mitchell	209,400
98	Fargo	209,300
98	Waco–Temple	209,300
100	Burlington–Plattsburgh (Hartford, VT–Hanover, NH)	207,700
101	Greenville–New Bern–Washington	203,300
102	Colorado Springs–Pueblo	197,900
103	Savannah	192,500
104	Madison	190,800
105	Las Vegas	190,200
106	El Paso	187,200
107	Augusta	187,100
108	Rockford	185,600
109	Columbus, GA	183,300
110	Monroe–El Dorado	179,300
111	Charleston, SC	178,900
112	Salinas–Monterey	178,500
113	Lafayette, LA	178,000
114	Amarillo	174,600
115	Duluth–Superior	173,400
116	Santa Barbara–Santa-Maria–San Luis Obispo	170,100
117	Joplin–Pittsburg	168,900
118	Wheeling–Steubenville	166,500
119	Montgomery	165,700
120	Eugene	163,500
121	Yakima	163,300
122	Ft. Myers–Naples	161,700
123	Terre Haute	161,200
124	Beaumont–Port Arthur	160,300
125	Wichita Falls–Lawton	157,900
126	Wilmington	157,000
127	La Crosse–Eau Claire	156,500
128	Tallahassee	156,000
129	McAllen–Brownsville/LRGV	154,700
130	Corpus Christi	154,200

TABLE 9.1 CON'T

ADI MARKET RANKINGS
FOR 1981 *(Continued)*

Rank	Market	ADI TV households
131	Sioux City	152,800
132	Wausau–Rhinelander	151,500
133	Binghamton	147,500
134	Traverse City–Cadillac	146,600
135	Reno	146,000
136	Bluefield–Beckley–Oak Hill	145,800
137	Erie	145,400
138	Lubbock	145,100
139	Macon	144,300
140	Boise	141,500
141	Topeka	139,600
142	Rochester–Mason City–Austin	138,500
143	Columbus–Tupelo	138,400
144	Chico–Redding	131,400
145	Minot–Bismarck–Dickinson	131,300
146	Quincy–Hannibal	128,500
147	Columbia–Jefferson City	124,700
148	Odessa–Midland	124,300
149	Ft. Smith	120,700
150	Bakersfield	120,300
151	Bangor	119,300
152	Medford	115,800
153	Missoula–Butte	112,200
154	Abilene–Sweetwater	111,500
155	Albany, GA	109,100
156	Utica	100,700
157	Florence, SC	98,800
158	Sarasota	95,000
159	Idaho Falls–Pocatello	93,300
160	Tyler	92,000
161	Rapid City	87,600
162	Laurel–Hattiesburg	83,000
163	Elmira	82,000
164	Alexandria, LA	81,800
165	Panama City	80,400
166	Alexandria, MN	79,300
167	Salisbury	79,200
168	Billings–Hardin	75,800
169	Clarksburg–Weston	75,500
170	Dothan	74,600
171	Watertown–Carthage	74,500
172	Lake Charles	71,600
173	Gainesville	70,300
174	Ardmore–Ada	69,100

TABLE 9.1 CON'T

ADI MARKET RANKINGS
FOR 1981 *(Continued)*

Rank	Market	ADI TV households
175	Greenwood–Greenville	66,600
176	Jonesboro	66,000
177	Great Falls	63,900
178	El Centro–Yuma	58,000
179	Biloxi–Gulfport–Pascagoula	57,400
180	Eureka	54,900
181	Palm Springs	54,600
182	Meridian	54,300
183	Casper–Riverton	53,000
184	Marquette	52,400
185	Roswell	52,300
186	Grand Junction	49,900
187	Cheyenne	49,500
188	Tuscaloosa	48,700
189	St. Joseph	47,600
190	Harrisonburg	46,200
191	Jackson, TN	44,000
192	Lafayette, IN	41,200
193	Bowling Green	40,800
194	Anniston	40,700
195	Lima	39,400
196	Mankato	37,400
197	San Angelo	34,900
198	Parkersburg	34,500
199	Ottumwa–Kirksville	30,400
200	Twin Falls	30,300
201	Zanesville	30,000
202	Presque Isle	29,100
203	Laredo	28,900
204	Farmington	26,000
205	Selma	25,500
206	Bend	24,000
206	Victoria	24,000
208	Helena	16,700
209	North Platte	15,800
210	Alpena	15,100
211	Miles City–Glendive	10,800

ADI television market rankings are based on Arbitron estimates of U.S. television households as of January 1, 1982. Markets in parentheses have no ADI. However, the TV households estimates of their home counties are included in the listed ADI market.

basis upon which television programming is evaluated, created, marketed and distributed.

The necessity of refining audience research to deal with fragmentation and what fragmentation means to producers, programmers and advertisers has been the underlying conclusion of most recognized authorities in this area. Marshall Ottenfeld, senior vice-president and chair on the U.S. Research Operating Committee for the D'Arcy-MacManus and Masius Advertizing, addressed these comments to advertisers and broadcasters:

> Media research must mature. Advertisers, like broadcasters, need more valid and reliable counts of media vehicle audiences. Demographics, product use and media audience numbers will have to be accompanied by psychographic measures. We need to develop sophisticated media optimization models that draw on multiple data bases providing lifestyles, social values , product information, behavior data, as well as demographics, to define audiences."[102]

Consider these impressions of Robert A. Maxwell, vice-president of Research for Home Box Office /Cinemax:

> The major topic to be addressed by research in the 1980's is the development of more precise and sophisticated audience measurement tools. Up until this time, audience research has focused on the number of people using their television sets, particularly the number viewing commercial television. As the television dial expands and audiences become smaller, the need will dramatically increase for audience measure which accomplish (other) objectives... more comprehensive research instruments are needed to better measure and define the type of audience that is

> watching--be it better demographics, psychographic, or purchase habits. There is clearly a need to better understand the difference across audiences.[103]

The inadequacies of the diary/meter system in the present scheme of things, lies in its potential for distortion, and its inadequacy for keeping track of a greatly expanded source of programming origination. While minor distortions of three to four percent may be tolerated when the television audience that is being measured is 20 to 50 % of all households, it becomes meaningless in the fragmented market-place where much programming will attract 5 to 10% of all households (if not even that). Moreover, while a diary keeper can be expected to keep track of which of three networks are on one television, it becomes very much more complex to record which of 10 to 20 programming choices are on two household televisions. People Meters, which record not only the time and channel but allow the viewers to electronically record the size of the household audience at that time, are seen as the answer to these two problems. Both Nielsen and Arbitron have committed themselves to implement this technology. Moreover both companies have tied this implementation to the incorporation of household product scanning and widespread media and marketing data bases.

In August 1984, Nielsen merged with Dun and Bradstreet which is the largest supplier of marketing and business information with revenues of over $2.5 billion.[104] This

will permit the combining of Nielsen's information with Dun and Bradstreet's research services and data bases. These resources include Donnelly Marketing, Dunn & Bradstreet Credit Services, Dun's Marketing, D&B Computing Services, DunsNet, Zytron, Donnelley Marketing Information Services, SalesNet, and DunsPlus.[105] Nielsen is already offering a combined media marketing data base with ScanTrank Major Market Service which provides a complete multimedia and marketing analysis by market of scanner recorded brands.[106]

Beginning this fall Nielsen will begin implementation of its people meters. The first stage will be a 1000 household sample.[107] If all goes well these people meters will eventually become the basic source of television audience measurements of all types. The sample is scheduled to increase to 2,700 by September 1987 and to 6,000 a year later.[108] The sample is expected to eventually increase to over 8,000 households.[109] All this information will be available on-line, with what Nielsen is calling its Megabased system, which will permit in depth high speed analysis. The information gathered by the people meter will also permit a number of together on-line services. Cable networks will now be more effectively monitored. Commercials will be monitored on a 24 hour a day 52 week a year basis in the 75 top markets.[110] Information about all commercials whether broadcast by

network, syndication, spot TV and cablecast, can now be analyzed in light of other audience data to provide an exact and complete television advertising picture. In another experiment, Nielsen has organized 3500 households in Sioux Falls to receive specially prepared broadcast commercials and newspapers.[111] Their purchases are then scanned by equipment that has been installed in all major retail outlets. The results here have yet to be finally interpreted, but some major suspicions have surfaced. Evidence is tending to support the belief that the content of commercials is more important than their frequency. This has been described by the major television advertisers as "sobering" and provoking "soul searching" in ad agencies.[112] But regardless of what lessons are finally learned, it will make advertising a more dynamic less formulized process. As it becomes possible to know immediately which approaches are working for which products in which situations and markets, creative responsiveness will count for more than generalized formulas.

Arbitron, perhaps because of its close affiliation with its parent company Control Data--the chief executive officer of Arbitron, Theodore F. Shaker, is a vice president of Control Data--has been quicker than Nielsen to develop applications for new information technology. Since the mid 1970s, Arbitron has made its information available

on-line.[113] This permitted clients to access five times as much data as was generally circulated in printed reports. It also permitted research with interactive data base services. A data base called Target Aid was developed that allowed advertisers to get a much clearer idea of specific audience demographics and locations. Arbitron expanded from 3 to 11 metered ADIs between 1982 and 1984.[114] This expansion culminated with the introduction of Product Target Aid. This service, using an IBM-XT personal computer, allows data from Arbitron, Simmons (product information) and Donnelly ClusterPlus (lifestyle information) to provide information about audiences, customers and competitors. Last year Arbitron set up a joint venture with Burke Marketing Services and Time Inc. to further the creation of better marketing and media data bases to serve their on-line customers.[115]

Arbitron's most ambitious project to better information resources is a pilot project in Denver that uses both a television people meter and a portable product scanner in the same household to compare television viewing with product purchases. The pilot, ScanAmerica, began with 200 homes on November 30, 1985.[116] It is considered a success by Arbitron with over 90% accuracy in the individual responses to the people meter.[117] There is less information being made available about the use of the

product scanner. Plans for this pilot involve an expansion to 600 households in Denver this year, and tentative plans to expand it to 5000 households nation wide by 1989.[118]

BBM in Canada has yet to announce its plans for people meters. Preliminary information from the company would strongly suggest that they will shortly announce some sort of commitment to the Nielsen technology.[119]

In summary, it is fair to say that a new era in audience measurement is just coming into being. Recently there has been a concerted effort by both Nielsen and Arbitron to put new information technology in place. Not only will this information technology provide more detailed audience analysis, but it will also allow for the timely analysis of other kinds of marketing information that will affect programming and media decisions. In general terms it is possible to speculate how this ability to measure markets and programming effectiveness, coupled with the ability to distribute programming to smaller audiences, will change the face of both television business structures and programming. In the conclusion these new possibilities will be looked at in some detail. But what this will mean in precise terms regarding both tactical media purchases, and strategically--as it affects the financing of new marketing/media structures--will have to wait until this

technology is finally in place and acted upon. It will have to wait for the development of MDSS for media and television programming. Just how quickly these kinds of systems are implemented within the television industry, by advertising agencies and advertisers, is the subject of the next chapter.

10.0 THE IMPLEMENTATION OF MARKETING DECISION SUPPORT SYSTEMS

As discussed in the previous chapter, more detailed information will be gathered about television audiences. It will be made available along with many other data bases and customized computer analysis. As was noted in the introduction to Part II of this thesis, these kinds of larger integrated information systems are referred to as Marketing Decision Support Systems (MDSS). In the near future, as more information becomes organized in various data bases, marketing decisions and decisions about creating and buying television programming will become more and more dependent on the skillful use of these systems. They will form the basis for analysis and discussion by both media purchasers and media managers on the relative worth and effectiveness of media coverage. This chapter will look at the problems that are associated with the implementation of MDSS and in particular the implementation of MDSS that are directly related to the television industry.

Over the past five years there has been some good academic work on the organizational and social problems involved in the implementation of computer information systems. There has also been a real sense of

disappointment by the failure of a number of computer information systems to provide the kind of efficient service that was expected. This growing understanding about the complexities surrounding the implementation of information systems and this sense of practical disappointment have clouded the future of information systems. They are seen as theoretically attractive, but in reality highly over sold. The root cause of the problem is, I think, effectively summed up by Stephan H. Haekel, director of advanced market development at I.B.M.

> Why this almost exclusive focus on the technology? Why not on its use? We don't market technology, after all we market its application. And its application is to get information from those who have it to those who need it, processing and transforming it to add value wherever we can along the way. Yet market research is still done in terms of the demand for the computers, terminals, videotex systems, or software, rather than in terms of the demand for the information to which they provide access. Theodore Levitt makes an interesting case: "We do not what's important, but what's amenable to our technologies of inquiry, to the data that are easily at hand."[120]

This observation certainly holds true for the marketing of television programming. Commercial structures are judged by the old information resources. New information resources that could be used to create and evaluate new strategies coming out of the new distribution technologies are being developed very slowly, in spite of available technology and a high degree of familiarity with this technology within the industry. By looking at the

principles that have surrounded the successful implementation of MDSS and information systems in other endeavours, lessons can be learned that will put expectations of implementing advanced MDSS for television production on a realistic basis. Most of the literature on the implementation of MDSS comes from the study of large and medium sized industries. The insights here tend to fall into three categories: the psychology of implementation; the organizational and commercial limitations to acceptance and effectiveness; and predictions about what the future holds for MDSS in various business structures under various conditions. Much of this material is convoluted and stilted in style, but at the heart of all of it are some very commonsensical observations.

Among the most readable and experienced authorities in this area is Vincent P. Barabba, director of marketing for Eastman Kodak and the former director of the U.S. Census Bureau. Drawing on his accomplishments in redesigning the computer systems for the Census Bureau and in implementing a large scale MDSS at Eastman Kodak, he has synthesized a systematic approach to implementing MDSS. In his article, "Steel Axes for Stone Age Men",[121] he likens the process of implementing MDSS and other information systems to that of a new order of technology coming to a primitive tribe and

robbing those that possess the old tools of their power and prestige. He suggests the following six-point program for the implementation of MDSS.[122]

1. Have those who manage the organization agreed that there is a need that will utilize the change being proposed?

2. Have they designated a champion--that is, a person or a group of people--to make sure the change comes about?

3. Who has participated in planning for change? Who has not?

4. What, if anything, does the change modify or replace? Are there significant alternatives, with potential for success, that may continue to divert energy and confuse the issue?

5. Who within the organization will benefit immediately as a result of the change? Who will benefit over a longer term?

6. How will the change affect the major relationships within the organization: individual

relationships; organizational relationships; and social and other informal relationships?

Coupled to these six questions is a method of inquiry Barabba calls Strategic Assumption Surfacing and Testing (SAST).[123] SAST is adverserial, involves wide organizational participation, and attempts to coordinate strong points of view into a working strategy. Here is his description of the goals and need for SAST.

> Strategic Assumption Surfacing and Testing (SAST), as a procedure, is designed to reveal the underlying assumptions of an existing or proposed policy or plan and to help create a map for exploring the reality of the surfaced assumptions. SAST has been designed to deal with complex problems. The process is not intended to replace the exercise of creative managerial judgement. SAST was designed on the premise that in today's business decision environment, any position worth promoting will have significant uncertainties associated with it.
>
> It is usually the inability to deal with these uncertainties that either stops or delays the implementation of creative (different) managerial initiatives. SAST does not ignore uncertainty. Indeed, it also aggressively challenges what appears to be certain. It does so to ensure that, prior to implementation, the assumptions upon which our initiatives have been based are likely to stand the test of reality in the market-place. SAST attempts to provide a path to reducing the risk of dealing with uncertainty by identifying meaningful approaches to increasing our understanding in the most critical areas of uncertainty.[124]

What comes to light here is not so much a relatively reliable and painless way of getting over the complications involved in implementing information systems, but the

development of confidence in a new way of doing things. As Haekel pointed put, it is the new methods of handling information and not the technology itself that represents the advance here. Even now when reflecting on the beginnings of the industrial age, there is a tendency to cite the technology itself as the change rather than an artifact of that change. In the dawning of the industrial age, it was not steam engines or even mechanical aptitude that fostered industrial development. It was a sense of understanding that the industrialization process was going somewhere. The development of mines, factories and railways as long term projects, went ahead on the basis of the assumption that coal and metal would be required to power and build machines, that machinery could produce more and more efficiently, and that there would be a growing need to transport all these raw materials and increased production. What took place psychologically speaking was the creation of a sense of destiny about these events. They were seen as part of a way of life that would not go away, and that would continue to be the key to even more future events. The ensuing railway building mania had as much to do with this belief as it did with the steam engine, which in point of fact had been invented in ancient times. The fact that various areas and industries around the globe industrialized at different times and at

different rates had as much to do with this sense of destiny as it did with the availability of resources.[125]

The implementation of information age technology turns on a similar belief. It will require a sense of information technology as part of an ongoing process that is creating a fundamental change in how things are organized. A sense that will encourage people to think aggressively about the use and importance of information. Finally, Barabba's case study of the Eastman Kodak MDSS underlines this psychological change, as the most important accomplishment of his project. Not only at the top, but at all levels of management.

> I want to underscore another point from my perspective as a practitioner: It takes a long time to get the data in place for an effective MDSS. Within Kodak, for example, we are still putting the pieces into place. At the same time, I have discovered that the anticipation of the MDSS is already causing changes. For example, at the conclusion of a major series of research studies on an important facet of consumer attitudes about photography, the information managers took time to examine longer-term issues relating to the effective implementation of an MDSS. They asked essential questions, such as, "how do we organize these data so that the next time we need to answer related questions anyone can go to the computer and pull out the data?" That insight grew from the recognition that questions are going to be asked and the data should be there, even if the information managers who originally translated the data are still not there. Thus, I can ask the rhetorical question, Do we have an MDSS? I would answer no not yet. But to the question "Are we thinking like an MDSS?" the answer would be yes.[126]

Barabba's over all point then, seems to be that not only is an organization's attitude more important than technology, but that technology is completely secondary. In fact, as he points out regarding the lack of requisite data bases at Eastman Kodak, some of the technology and its applications may not even exist yet. The important thing is to have an organization that is led by people who support the eventual introduction of information systems to as high a degree as possible, and that others in the organization are coordinating their information resources to fit in with the technology, once it is available. The basic difference between this point of view and most others is that this perspective allows an organization to develop beyond present technology and its limitations so that technology fits in with the organization when it is implemented, rather than the organization having to scramble to accommodate it when it finally shows up. This sense of information destiny, just like industrial destiny, allows commercial structures to leap frog in their development. Railways were not built because the traffic was there. Nor should information systems be planned because the information is there, but because informed common sense indicates it will be there. The basic idea then, simply stated, is that those working with information systems must do so in a positive, creative frame of mind.

George Gasser and Walter Scacchi, who have recently concluded Ph.D. theses on the topic of implementing computers in complex organizations, support this point of view.[127] They describe with detailed case studies how various enterprises dealt with the short-comings in different computer systems, discovered innovative uses or simply worked around short-comings. While they focus on the types of short-comings involved in implementation rather than attempting to develop an over all implementation strategy, they underline the importance of a positive attitude in sifting through the uncertainties that arise. In the end, they point out, not all systems will work efficiently, and most systems will not always be efficient. But for any system to progress, these pitfalls must be taken in stride.

> The implication of Scacchi's finding is the particular fitting work of computing innovation, intended to realign computing with the contingencies of primary work, sometimes has the opposite effect. Innovating computing sometimes leads to greater difficulty and systems further misaligned with the demands of primary work.
>
> Computing innovation (a type of fitting work) is only one of many strategies people have when faced with anomalies and misalignment. In the view we have presented, people sometimes seek to innovate as a response to misalignment between computing and their primary work. People are enacting lines of work through chains in production lattices when using computing. The local constraints, resources, and opportunities they face shape their actions. Sometimes their lines of work lead them to innovate their computing arrangements. Under other circumstances, they choose to provide augmentation

> work or work around computing. In either case, the outcomes are not guaranteed, and continued integration of computing into work is still subject to the ongoing, practical actions of participants, not inertia. [The underlining is mine.][128]

The idea that new projects, especially with distant goals, must be pursued with a positive frame of mind, with a view to where things should end up, might seem an obvious approach to this kind of initiative--if it were not for the fact that this kind of planning and general understanding is notoriously absent when new computerized information systems are contemplated. The problem is, as Heakel pointed out, one of looking at a specific application of technology as an end in itself rather than trying to learn about new and more useful ways of using information resources in general.[129] Barabba's case study gives some insightful and tested guidelines as to how this positive cooperative effort can be successfully developed, and long term information plans developed regardless of whether or not the technology is in place. But even Barabba's guidelines, even when considered with his assumption testing methods, does little to come directly to terms with the obstacles to the development of MDSS that may exist for structural or political reasons within an industry or institution. What if--to borrow Barabba's own image--there is no champion? Regardless of how informed or adroit an implementation process is, it will not get very far if

organizational or commercial reasons prevent those in charge from encouraging its use.

In Barabba's scheme of things he is careful to underline the necessity of having a champion. That is, a person or group of persons that are supported in their efforts to implement information systems at the highest level. Barabba goes on to point out that there is little point in even attempting to come up with a coherent approach without such a group in charge of implementation. This support of senior management may or may not be forthcoming for a variety of reasons. In spite of the fact that information systems have a reputation for being very much oversold and a frequent disappointment to senior management, it is senior management that has the most to gain for their eventual implementation. Here are the comments of two chief executive officers on the advantages they see in an MDSS.

> There is a huge advantage to the CEO to get his hands dirty in the data. The answers to so many significant questions are found in the detail. The system provides me with an improved ability to ask the right questions and to know the wrong answers.
>
> I bring a lot of knowledge to the party. Just scanning the current status of our operations enables me to see some important things that those with less time in the company would not see as important. Although the resulting telephone calls undoubtedly shake up some of my subordinates, I think in the long run this is helpful to them.[129]

In spite of this desire at the top to get a clearer picture and have a more responsive hold on things, there is a paradox that can arise in companies where an inadequately developed marketing information system, limited in its data by past trends, prevents those in charge from viewing strategic changes in the market they are operating in. As Rudolph Struse, a well known MDSS consultant with ten years experience implementing MDSS in major corporations, points out "if there has been little competition in the industry or if most firms have simply emulated the leader, the historical data represents only a fraction of the possible market actions and market response.[130] The marketing of television programming has been done in just such an environment.

As was pointed out in the introduction, marketing information and television have been closely related. And it can be said that the marketing information systems that are already in place to evaluate broadcast programming are the most depended upon information systems ever created. But the changes that will be required in this system to evaluate in more detail, and to create the kind of finer decision making that fragmentation will require, are of a very high order. Networks have generally done very well, as have independent broadcasters and the established audience research firms. There has been little incentive

for them to find champions to improve their marketing information systems. In the past, broadcasters relied on emulation of the market leader to choose programming. In fact, practically the only data considered relevant in programming decisions, is market share at the present time. Qualitative decisions are just not possible with the present audience measurements. Structural changes within the industry have never been taken seriously by broadcasters whose position has always been secure. David Poltrack of CBS outlines network resistance in these terms:

> Today, the networks underwrite the major portion of television audience measurement. Current methodology is adequate for measuring the largest network audiences, and there is thus little investments in research to improve that methodology. And the small cable services are not yet in a position to take on the cost of such research. Nevertheless, the introduction of the people meter does not seem that far away. Competition among research companies is likely to lead them to this approach. The advertising agencies and advertisers themselves will put increased pressure on the networks to improve the audience measurement techniques for their industry. The maturing cable industry will also contribute more to advancing the state of audience research since is stands to gain from more accurate measurement of its audience.[131]

Clearly there is little need for networks to look for a champion to up grade their information systems. Moreover the industry, due to its historic non competitive nature, has always looked at media structures in a defensive light. One broadcast executive noted that most broadcast station owners got into television to protect their position in

radio. An audience research company executive noted that all improvements in information systems had to show a profit within three years. It is apparent that there has been little motivation for networks to advance marketing information systems, and there is a psychological bias against analyzing market structures in an aggressive way. It would seem that broadcasters and networks have farther to go in adapting themselves to the fundamentals of the information society than do many other non-communication companies.

There are, however, a number of pressures coming to bear on networks and broadcasters--some of which Poltrack outlined--that will accelerate their implementation of advanced marketing information systems. As noted in the previous chapter, competition among research firms has already led to definite people meter projects. It has also led to the merger of Nielsen with Dunn and Bradstreet and a joint venture between Arbitron and Time Inc. This will increase the rate at which demographic and product data bases are created and integrated with audience information for media and marketing purposes. This type of analysis will be available to the network's major clients. This year network revenues were down. This should encourage them to start paying closer attention to their clients' media analysis. As major clients become versed in MDSS

detailed analyses networks will have to sell their product on that basis.

The networks major clients will become increasingly dependent on MDSS analysis. The theoretical assumptions about the value of MDSS are being rapidly proved correct by practical experience. As these lessons become more widely understood the rate of implementation of MDSS will accelerate accordingly. Rudolph Struse supplies several case studies to illustrate the "payoff" of MDSS in definite, practical terms. In one instance he notes that a business unit of a large corporation completed 50 projects the year before an MDSS was introduced, and 505 projects the year after.[132] While speed is not always of critical importance, it is often essential. In the dynamic and competitive media market of the future it will probably become more so. Here is a case study--while not directly related to media or television--that supplies a dramatic insight into how MDSS can provide effective marketing results under almost impossible time pressures.

> At 11:15 A.M., Ace's vice-president of marketing called: He excitedly yelled something about our second largest customer dropping part of our product line. This sounded serious, but not critical. Unfortunately, as he explained, the picture became clearer and more serious. The executive vice-president of our customer was in the boardroom for what had been expected to be the start of a routine "plant tour". But shortly after arrival, he announced that Zenith Supermarkets were planning to drop

twenty-three of our items (or about 25 percent of the total items Zenith was buying from Ace at that time). The reason was an analysis of the sales of these items: Zenith had found the turnover rate for these items was below the threshold required for distribution in their stores. Zenith's executive vice-president had also announced he was leaving promptly at noon. We had forty-five minutes to develop ammunition for the marketing team to use in persuading him to reconsider. We first tried to imagine and reconstruct the analysis that Zenith must have done. Converting our factory shipments to Zenith into per outlet turns, we found that the twenty three items in question did appear to move slowly. Rather than stop at that point, as Zenith had, we needed, and were able, to go deeper in understanding these findings. We next observed that Zenith's "turns" for the twenty-three items were low compared to other comparable large accounts. This led to calculating item turn rates for Zenith's direct competitors - that is, the other retail chains in Zenith's marketing territories. Our customer's competitors were getting much higher turn rates on these same items in the same markets. Since geography, time periods, and market position had been taken into account, it appeared that the explanation for the different turn rates might be differences between Zenith and its competitors. A hypothesis was formulated that differences in pricing or merchandising practices would be most likely to produce the differing sales rates. Zenith's competitors were found to have featured these items more frequently and with larger discounts than it had. At this point, we made a rough estimate of sales and gross income Zenith could realize if it changed merchandising practices to match its competitors and if it got comparable turn rates on the items. All of this work was delivered neatly formatted and summarized to the board room by 11:57 A.M.

The immediate result was that Zenith's executive vice-president reconsidered his decision. Zenith later ran a test in a sample of stores to see if the turn rates of the items could be improved by a shift in merchandising practice. None of the twenty-three items was dropped by Zenith. This responsiveness was only possible because the MDSS for this business had been previously set up and because the problem happened to correspond well with the data in the MDSS.[133]

Here is a second case study supplied by Struse that gives a practical example of the efficient application of MDSS to media and television.

> For years, Ace Manufacturing advertised brand C in a consistent pattern. Partial sponsorships of popular prime time network TV shows were purchased throughout the entire year. Brand C had one or more prime time spots, averaging about twenty to twenty-five gross rating points, every week during the year. When Ace began buying external marketing data to track competitive performance and marketing activity, the managers of brand C found that it consistently lost share during its category's peak seasonal period. Further, C's share of advertising was considerably higher than its share of market in the off-season, but dropped below its share of market during the peak season. The brand's media buying and scheduling pattern had originated in the days when nearly all prime time shows were sponsored by individual companies, and at a time when C was growing at a rate that masked the effect of seasonality. Within a year, the managers had adjusted C's media plan to take better advantage of seasonality and the efficiencies possible with "scatter" buying.
>
> After increasing the effectiveness of brand C's media schedule, the marketing managers decided that a substantial increase in C's total advertising budget was in order. The additional money was split between more prime time TV and "spot" TV in key geographical markets. (Key markets were defined as those in which C had a higher share of the market.) The MDSS for C was used to track the expanded advertising program and estimate its incremental effect so that the next year's plan could take advantage of the current experience. What was learned was a bit different from what had been hoped for. There did not appear to be any overall effect related to the increased advertising. But a bright analyst working with the advertising agency and marketing group found effects at the local market level that were correlated with C's share in those markets. Where C had a high market share, there was little incremental response to the increased advertising. Where C's share was lower, there was a large proportional response to the incremental advertising. There were exceptions to the pattern, such as where C had unusually low

> distribution or unusually high pricing. The results led to a more extensive series of controlled experiments investigating the relationships among advertising, market share, and pricing. The experiments generally confirmed and refined the analysis done with the MDSS. The result for C has been a continuing evolution in the efficiency of its advertising.[134]

As MDSS continue to prove their worth in analyzing the value of television programming and other media, networks will have to develop their own prowess in this area. But beyond these external pressures to come to terms with MDSS, the networks themselves are slowly developing their own requirements, as competition within the industry becomes based in part on taking advantage of, and hedging against structural changes. It is this kind of structural change that the tactical thinking of the ratings process cannot come to terms with. Recently there have been several interesting examples of this new structurally competitive nature of the market-place directly affecting network interests. These challenges have been fostered by external factors in the sports and news programing markets, and the distinct possibility of a fourth network. The circumstances involved cannot be evaluated with ratings, but require qualitative judgements and structural analysis.

Sports programming has grown in popularity since the late sixties. Even without a sports cable channel, demand increased from 688 hours of U.S. network time in 1967, to

1364 hours plus 53 hours of olympic coverage, in 1980.[135] This resulted in an expansion of team sports, sports anthology programming and even junk sports (i.e. celebrity tennis, etc.). In the 1980s this demand was furthered by the expansion of sports cable channels stronger independent stations, and fierce competition among breweries--by far the largest purchasers of sports programming--who had to protect their market shares in the face of an ever decreasing demand for their products. Networks began to be priced out of the sports programming market-place. Cable channels could often pay more for sports events than could broadcasters. Even the NFL became a possible candidate for cable programming. Local stations began to use more sports programming of particular regional interest. Breweries were now willing to directly buy sports events and league television rights out right. For instance, Carling breweries purchased the television rights to the CFL for the last five years. This has adversely affected the networks' position as a supplier of sports programming.[136]

An interesting, aggressive reaction to this evolved out of negotiations between Hockey Night in Canada and the Nordiques. Unhappy with these negotiations the Nordiques set in motion an initiative that created an alternative hockey schedule on CTV.[137] The creation of the schedule had more to do with structural changes in sports

programming (i.e. creation of expansion teams, and a foreseen shortage in affordable network sports inventory) than it did with actual ratings. In fact, it was the team owners rather than CTV who put the proposal forward.[138] It did, however, teach a lesson to three major participants in "Hockey Night in Canada"-- CBC, McLean advertising and Molson breweries--who saw their programming devalued because they continued to assume they were in a non-competitive market, and did not take into account broader structural data.

As described in the first part of this thesis, ad hoc networking has changed the role independents can play in producing their own programming. Nowhere has this change been more profound than in the area of news programming. The owner of an ABC affiliate in St. Paul has established a consortium of 40 network affiliated and independent stations called Conus,[139] that produce live national news coverage using two satellites and a fleet of mobile up link units. Stations that had little interest in producing local news now find that local news is one of their most profitable programs. Affiliates are not the only ones now competing with the networks for news programming. CNN, Westinghouse's Newsfeed, and the Chicago Tribune's Independent News Network are all developing their own news programming.[140] This plethora of news production is due

mainly to the technological changes in satellite distribution. With the cost of satellites dropping, and more individuals purchasing up link mobile units, the possibilities for covering more events live at an affordable price will continue to increase--the average cost for a Conus transmission is 75$.[141] Prior to this growth in satellite and mobile up link technology, the cost for first class news programming was prohibitively expensive for all but the networks. Network policy was to hold back key news stories from the affiliates to maintain network exclusivity. Today they are on the road to becoming something of a video "wire service" providing feed to affiliates who will then package their own program from any of the many services that are available to them. While this change in structure was to some extent inevitable, the networks have been slow to hedge against it. They are now offering subsidies to their affiliates to buy mobile up links.[142] Regional syndication feeds which permit affiliates to share stories have also been stepped up. Network news has developed an almost experimental tone in an effort to find a format that will increase its value. In the words of one former CBS news executive--"They just haven't figured it out yet".[143] If the networks have been slow to react to this particular structural change, they will have to move quickly to compete in strategic ways to maintain anything of the news programming market.

Regardless of what answers they come up with, they will have to revolve around a more responsive involvement with affiliates and their programming interests.

A fourth network has been a much discussed possibility since the advent of new distribution technology made national distribution of programming much more efficient. However, these possibilities have not gone beyond the first tentative stages, limited to the establishment of super stations and ad hoc networks. This hesitation has been fostered by the uncertainties surrounding fragmentation and the commercial potential of the new distribution technologies. Now that the fragmentation process has become defined to some degree and the relative value of the new distribution technology explored in practical terms, the possibility of a fourth network can now be approached with far more certainty. In fact, Rupert Murdoch is currently putting together such a project.[144] Just how seriously his efforts are being taken by the networks, can be seen in the recent cut backs by CBS. The magnitude of these cuts backs would indicate that the present business reverses are not being viewed as transitory. If a fourth network is established, then the post fragmentation audience for network programming will be divided four ways and not three. If this total audience decreases to around 60%, that would leave each network with just over 15%. And

if a fourth network is possible why not a fifth? At any rate, it is apparent that the networks will find their business becoming highly competitive with declining market shares almost a certainty. Moreover, their reduced market share will require them to analyze their audiences in a much more detailed way than ever before. The present leeway of two to three rating points will not be acceptable when network shares are in the 10 to 20 point range, as opposed to the present 20 to 40 range. They will also have to come up with convincing arguments based on detailed audience analysis, on why they should charge more for less.

Not only is fragmentation taking audiences away from the networks, but it is decreasing their ability to market sports and news programs. Moreover it is probable that a fourth network will come into being. With more ad hoc networks, private satellite networks, cable and VCR programming, and a fourth network--coupled with far more information becoming available about programming, audiences and products--a whole spectrum of potential program marketing schemes are possible. Those purchasing programming in the old scheme of things concentrated on CPMs as a measure of media effectivness. But these numbers are for a mass audience taking only minor demographic characteristics into account. And furthermore this complete dependency on numbers does not help deal with the

structural changes that provide new media and marketing opportunities and challenges. In response to these complexities, major advertisers are developing strategic media planning on a level that will require network participation. The main point here is not that networks are fighting against more detailed information about media purchases, but that they are slowly developing their own requirements in this area, and that the pressures on them to develop and use more detailed analysis will grow more and more quickly. Eventually they will be among the most proficient in their use of broad based MDSS in order to best to sell their services. And at that time they will find their own champions. Until then, a major part of a comprehensive MDSS for television programming will be lacking. Until then advertisers will be moving in an "uncharted environment". David K. Braun of General Foods, looking at this problem underlines the need for a new, more creative, qualitative approach.

> The result of the two issues just described is the greater need for a culture shift from an information logic mode to a greater reliance on the advertizer's judgement. The analytical MBA mind, so long sought by packages goods advertisers for product management positions, needs to be tempered ever more by a qualitative experience and intuition. A volatile, uncharted environment does not lend itself as well to the formulas and calculations of the past. While research may eventually bring greater quantification to the NEM world, until then, decisions must be made more on qualitative assumptions.[145]

In all probability, new quantitative methods will be created, as Braun suggests. But as outlined in the introduction to this thesis; the market-place itself will continue to remain in a state of flux, as will the applications of new video and information technology. So while these new quantitative methods may be of some use, it seems equally certain that qualitative judgements based on disciplined, creative insights will continue to become a much more realistic approach.

11.0 SUMMARY AND CONCLUSION, PART II

In summary, it is fair to say that MDSS can be implemented in organizations with an eye to future technological developments, even without knowing what those developments are. The key here, as Haekel and Barabba point out, is to assess the marketing information needs of the organizations, and then begin to coordinate information storage and retrieval at as high a level as possible. Barabba, Scacchi and Gasser all point out that once a positive approach has been instilled then tinkering with the technology and data will eventually lead to a successful system.

While all these conditions may assure the successful implementation of an advanced marketing information system, they will count for very little, if the industry itself works in a non-competitive market where market leader emulation and not market research is the order of the day. This has been the case as far as television programming has been concerned, in that while networks have had one of the most effective market research systems, it has been totally devoted to analyzing market share in the non-competitive network market place. Under these conditions there has been little incentive to further more detailed market information.

All industry analysts forecast the developing of more detailed research. The new audience measurement technology, and increasingly detailed product, market-place and demographic information, will make detailed MDSS research in this area possible. But until the networks have developed their plans in this area, implementation will remain incomplete. At present, the pressure on networks to develop better market research appears to be growing both from outside pressure to deal with more detailed MDSS type analysis, and from internal requirements to better understand the dynamic elements of their own industry. As underlined by Struse, the practical evidence of MDSS effectiveness is now apparent. Networks, independent producers, advertisers, advertising agencies, ad hoc networks, independent broadcasters and cable companies will all be able to have their managers verify details of program production, marketing and distribution structures. The growth of MDSS in this area can only lead to a plethora of innovative programming structures making full use of all the avenues created by fragmentation, as these managers develop their prowess in this area. Speculation as to what these potential structures and programming avenues will amount to, is one of the subjects dealt with in the conclusion to this thesis.

12.0 SUMMARY AND CONCLUSION

Video communications, having just entered a fragmentation phase, are now entering a secondary phase of experimentation based in part on information technology. Where fragmentation supplied many more potential avenues for programming, new information technology will make it possible to put together programming structures more deftly and to judge the results more closely. This permits experimentation in the sense that it allows for the organization of many untried forms of media organization, and a far more precise evaluation procedure. Charting the changes in video communications over the last half of this century, it may be convenient to divide circumstances into four stages: a finite broadcast universe, a fragmenting universe, an experimental infinite universe that is now coming into play, and eventually a practical infinite universe where new methods of program evaluation and program structuring have become more fully realized (see Figure 2). But before getting ahead of the times and attempting to identify what opportunities these future changes may bring to producers and programmers, it will be helpful to review the opportunities and challenges provided by the changes that have recently taken place.

As was reviewed in Part I of this thesis, there are a number of new, tried and proved markets for programming coming out of the fragmentation process. The major networks, ad hoc networks, and the pay-VCR-theatrical structure are all currently providing opportunities that simply did not exist five years ago.

Networks who are now seeing revenues fall away and forsee no opportunity for growth, are going to be more eager to implement economies of production. Major advertisers who see expenses spiralling because of the requirements of the fragmented television audience, will also be looking for economies of production. Both of these situations will continue to provide better markets for programming that can be provided economically or with a foreign pre-sale already in place. Canadian productions can fulfill both of these criteria.

Ad hoc networking among independents and affiliates will be a growing phenomenon as the structures become more fully organized and expenses continue to drop. They will also be looking for pre-sold foreign markets to help make their financial arrangements as manageable as possible. Private satellite networks are just coming into their own. As the cost of the technology involved drops, and the techniques involved become generally implemented on a broad

commercial basis, programming aimed directly at opinion leaders will become common-place. Not only will this further possibilities for Canadian programming partnerships in both these kinds of endeavours, but there is little reason to assume that these North American ad hoc programs cannot originate from Canada.

The U.S. pay-VCR-theatrical structure will continue to have program supply problems for which there will be no easy answer. The requirements for foreign programs in this market-place can only build on itself as audience acceptance increases with a growing familiarity with foreign productions. The presence of Cineplex Odeon as a major Canadian player in U.S. theatrical distribution should continue to promote Canadian production.

In Part II of this thesis, the progress and the challenges facing the implementation of more advanced information systems to measure audiences, and the effects of programming on audiences, was outlined in some detail. The networking of people meters, product scanning devices and market research data bases into MDSS for production, programming and marketing purposes was put into perspective. This process is still in the formative stages, with the final organization of people meters and product scanners still four to ten years away, but it is

already causing some sober reassessments about how programming is being sold. While it is not possible to be as specific here as it is about the market opportunities created by fragmentation, it is possible to look in general terms at these emerging structures and consider what the appropriate strategies should be for their exploitation. That is to say that while specific programming opportunities have yet to emerge from the implementation of this new generation of information systems, the important step to make will be to create a sense of how to use this information for marketing purposes. For as Barabba pointed out, success in this field is more dependent on having people thinking like a MDSS, than in whatever technology or particular application of that technology is finally put into place.

Looking at present patterns and structures, it is possible to attempt to foresee how this new information technology will affect the marketing of television programming in a variety of ways. Where in the past information systems have only been used in a tactical sense to judge the worth of programming that had already been distributed, they will now also be increasingly used in a strategic sense to evaluate programming possibilities and structured before programming is produced. They will encourage major advertisers to plan their media strategies

from the bottom up, instead of from the network level down. They will make adjusting and formulating ad hoc networks and international co-productions far easier. Private satellite networks will depend on information systems to locate opinion leaders and to keep them in touch with new satellite seminars covering novel events and analysis. The pay-VCR-theatrical release structure for feature film will be able to structure itself around definite market patterns, releasing only the number of prints that are required, and establishing a reasonable price for VCR cassettes while more precisely evaluating pay television potential. Barter/programming structures will become much more prevalent and complex as information technology simplifies barter transactions. MDSS will become more sophisticated as users and applications become more advanced. Eventually Expert Systems will be integrated so that MDSS are capable of automatically evaluating data and pro-actively planning alternate deals and distribution structures.

The trend toward bottom up media analysis will involve the advertisers taking a more active role in placing and producing television programming. There will be little value in CPM measurements when it can be proved that CPMs vary widely in how they affect product sales in different markets after all other variables are taken into account.

With this type of reliable information in hand the advertiser will want to make sure that the right CPMs are achieved for the right audience, in the right-market, for the right product. There are at least three ways to do this: buying time from local stations; establishing an ad hoc network and selling the time in markets that are of little importance; and pressuring the networks to divide national coverage for different products.

If the major advertisers take the most direct route of producing their own programming, as some analysts have suggested they will, and then attempting to judiciously distribute it on ad hoc networks, they will face the same organizational problems that all ad hoc networks do, as was outlined in the first part of this thesis. But added to these ad hoc organizational problems will be the burden of deciding which television markets should be kept and which should be sold, and to whom. All these otherwise overly burdensome requirements can be efficiently fulfilled with an MDSS that is programmed for these kinds of judgeme2nts.

Private satellite networks will have a close relationship with electronic publishing. As pointed out, timely scheduling here will depend on the use of electronic printer guides. For those using this type of network to sell to a select group, the researching of opinion leaders

will require database searches. For those with an academic or professional purpose, these networks themselves will become "headline services" for data bases. These networks will cover the meeting or seminar, and the papers and reports will then be immediately published in a data base that can be accessed for a fee.

The pay-VCR-theatrical release structured will eventually benefit from MDSS once the data base resources are in place. It has been suggested that the present theatrical release strategy of issuing 1000 to 1200 prints may become irrelevant for some films once it is possible to place film in more specific markets. The large audience research firms have yet to provide in depth analysis of VCR use in spite of the fact that VCR penetration has reached over I/3 of all television households. Once more precise information is available here, smaller budget films may become financially reasonable risks. Lower budget features would certainly interest the pay channels. But the potential advantages of information technology in this area become most interesting with the possibility of a DBS-HDTV theatrical release structure. With immediate data base analysis of which screens are doing best with which feature in which area, it will be possible to change features to maximize profits and minimize losses. This economy combined with minimal distribution costs will make it

easier to recover money invested in a production, and suggest different locations for many different types of production. These possibilities will again lessen the tendency to blockbuster thinking, as productions will no longer have to be blockbusters to cover extensive distribution costs.

Continued implementation of new information technology in other areas will add to the capabilities of MDSS for marketing television programming. Electronic Funds Transfers (EFT) which are currently creating a marked and dramatic restructuring of financial service industries, may well provide the basis for an extended barter system for programing. The continued development of Expert Systems will permit higher and higher levels of pro-active planning in putting together possible programming structures.

As the recent history of financial institutions illustrates, information systems that complete financial transactions, or what have come to be referred to as EFT, have had, and will continue to have an evolutionary impact on the way business is carried out. One aspect that is particularly relevant here is their use to formulate barter systems. In a sense what will happen here is that the "bit will become the buck", permitting barter systems to operate without direct trade, but with extensive and detailed

accounts that can lead to any number of transactions, any number of generations removed from the original barter deal. Barter systems of this type such as the Local Economic Transfer system (LET) are already in place in a number of different communities internationally, and work with some success.[146] Television already has an active barter market which could readily exploit the potential here.

There are basically three types of barter involved in television programming: direct, indirect and barter syndication. Direct barter involves the exchange of goods for television time. Indirect barter involves a series of exchanges, that eventually result in a trade for television time. These more complex deals are generally organized through a barter house. Atwood Richards is the largest barter house with an inventory of over $14 million in goods. Barter transactions amount to over $100 million a year in the US.[147] There are a number of shortcomings in barter dealings other than the obvious complexities of bookkeeping. Here they are:

Could the goods or services bring in greater revenue elsewhere?

What is the real value of the time received? Most barter deals involve television time that can be bought at bargain prices.

Is the audience delivered the one the advertiser wants to reach? Most barter deals are immediately preemptable.

Will the irregular scheduling of advertising disrupt the overall advertising campaign objectives?

How important is the television environment to the advertiser's message?[148]

Syndicated barter involves a program that is produced by a sponsor and then distributed to stations free of charge, but with an advertising commitment built in. The producer/advertiser keeps half the commercials for their interests and the station sells the other half for their profit.[149] Under the right conditions this can evolve into a long term mutually satisfying arrangement. With more programmers struggling to attract the advertising dollar there will be an added incentive to put barter deals together.

Other developments may make barter arrangements more attractive to networks and other services. As television auctions and shopping become established and profitable, they will give television services an in-house retail outlet from which to sell off barter inventory for cash. In a similar fashion teletext on the VBI could provide broadcasters with a hundred page merchandise catalogue that can be up-dated daily to respond to market conditions. Broadcasters could reach agreements with shopping channels or acquire their own. If the new information/programming structures will see advertisers becoming more involved in production and distribution, they may well also see programming services becoming involved in marketing.

Expert Systems that are being developed under the rubric of Artificial Intelligence could make a formidable contribution to MDSS. What is meant by Expert Systems is a computer programmed to "think in terms that can be practically understood and applied by a relatively untutored individual.[150] The computer, to some extent, becomes the guiding expert. This may have limited use in a situation where recognizing symptoms requires a high degree of training--such as in surgical technique. But in other areas where recognizing the problem requires only a modicum of common sense, but evaluating the problem requires sophisticated data research and calculation, expert systems

have vast potential applications. By the same token, the Expert System can "man" an information system looking for various data and relationships in the data. Expert Systems could make a contribution to MDSS in two ways. First of all, rather than letting the MDSS sit idle when it is not set to a definite task it could use this down time to search through changing data for new valuable structures.[151] In terms of marketing programming in the dynamic circumstances of the next two decades, this constant stream of research would be of regular value.[152] While Expert Systems cannot think in qualitative terms as distinctly as humans do, it could be programmed to search within definite parameters. If MDSS can supply a ten fold increase in research efficiency, one integrated with an Expert System could supply another degree of analysis entirely. A second use of Expert Systems would be their ability to explain and prompt how to use the more complex aspects of MDSS to relative beginners. Those without the proper statistical backgrounds might find it difficult to deal with MDSS at the present time. But with an Expert System prompting, this type of quantitative problem solving will be greatly simplified.

In conclusion, it is clear that there are many strongly affirmative answers to the question first posed in the introduction: What market opportunities do the new

distribution and information technologies create for Canadian television production?

Fragmentation has already created opportunities that will continue to grow as pressure on the various U.S. programming services continues to increase their requirements for more programs at a better price. While specific opportunities created by the application of information technologies remain to be seen, the structures that are falling into place strongly suggest that the changes here will be of a similar magnitude. These opportunities will be useful only to those that know how to use the information resources that will soon become available.

The possibilities for exploiting these new market opportunities is there. What may be lacking is the will and wisdom to take advantage of these opportunities. The impossibility of marketing television programming until recently, has created a Magenot Line attitude in government agencies, and fostered an inertia in commercial enterprise. There are only the most reluctant attempts to deal positively with the opportunities created by fragmentation, and virtually no understanding of the possibilities inherent in the application of information technology to the marketing of television programming.[153] In the end it

may be this lack of experience and backward thinking that is the largest impediment to exploiting these market opportunities. If there is any consolation in this, it is that this type of psychological inertia is the major difficulty confronting this thinking in general. In the words of Rudolph Struse:

> The costs and mechanical limitations of MDSS technology will be rapidly reduced in the next few years. Business will have access to more sophisticated and capable implementations. But all of the significant technological progress made to date may be for naught if attention isn't given to understanding the interaction between decision support systems and the firm as a social system. Unfortunately, these social interactions will be much more difficult to study and resolve than the technical problems.[154]

Or, to quote a famous philosophic Everyman, "I have met the enemy, and he is us." And therein lies the challenge of the future for Communications Studies in this area.

FOOTNOTES

1. Royal Commission on the Economic Union and Development Prospects for Canada, (Ottawa: Department of Supply and Services, Ottawa, 1985) pp. 411-482.

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6. Charles L. Brown, "Recasting the Bell System," The Columbia Journal of World Business, (New York N.Y.: Columbia University Graduate School of Business, Spring 1983): 5.

7. Peter F. Druker, An Introductory View of Management, (New York N.Y.: Harper and Row, 1977), p. 523.

8. Vincent P. Barabba "Steel Axes for Stone Age Men," Marketing in an Electronic Age, p. 129

9. Charles J. Macmillan, The Japanese Industrial System, (Berlin; New York: de Gruyter 1984), p. v.

10. Grieve Horner and Associates Inc., "A Study of the United States Market for Television Programs," Part 2, (Toronto Ont. : Grieve Horner and Associates, 1983), p. 18.

11. ibid.

12. Grieve Horner and Associates Inc., p. 7.

13. David Bowen, "Rupert Murdoch: Beyond the Wire," Business, Sept. 1986, p. 65.

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14. Grieve Horner and Associates Inc., p.7.

15. David Poltrack, Television Marketing Network, Local and Cable, (New York N.Y. : McGraw Hill Book Company, 1983), p. 82.

16. Poltrack, p.17.

17. ibid.

18. Grieve, Horner and Associates Inc, p.17.

19. Poltrack, Television Marketing, p 233.

20. ibid p. 83.

21. Interview with John Coleman.

22. Macleans Sept 2, 1986. p. 38.

23. Poltrack, p. 136.

24. Interview with David Poltrack.

25. Poltrack, Television Marketing, p 127.

26. ibid, P. 128.

27. David K. Braun, "The New Electronic Media: How Advertizers are Adapting," Marketing in an Electronic Age, p 196.

28. Interview with John Kennedy.

29. Interviews at Teleglobe.

30. ibid.

31. New York Times, August 17, 1986.

32. David Poltrack, Television Marketing, p 136.

33. ibid.

34 Interview with David Poltrack.

35. Interview with Alfred Massini.

36. ibid.

37. ibid.

38 Grieve, Horner, Part 2, page 40.

39. Interview with Alfred Massini.

40. ibid.

41. ibid.

42. Interview with Massini.

43. ibid.

44. Interview with George Matta.

45 Bill Inman, "Pi in the Sky," Business Sept. 1986 p85.

46. ibid.

47. William F. Walters, "Bringing Wall Street to Main Street: The Search for Links in New Electronic Media," Marketing in an Electronic Age pp. 220-221.

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49. Inman ibid.

50. ibid.

51. ibid.

52. Interviews at Merrill Lynch

53. ibid.

54. ibid.

55. Interview with Duncan Mackie.

56. Interview with David Poltrack.

57. Interviews with John Coleman and David Poltrack.

58. Poltrack, page 218.

59. ibid.

60. Kao, John, "Film Finance in Transition", Independent Research at Harvard Business School, 1983, page 116-117.

61. Sansweet, Stephen J., "Cash Overflow", Wall Street Journal, September 1983.

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63. Kao, "Film Finance in Transition,"p 55.

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65. Sansweet, p 15.

66. Sansweet, p 1.

67. Kagan, Paul, "The Pay TV Newsletter", January 26, 1983, pp 5, 6, and 7.

68. ibid.

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84. ibid.

85. Vincent P. Barabba, "Steel Axes for Stone Age Men," pp 118-119.

86. Charles M. Lillis and Bonnie McIvor, "MDSSs at General Electric: Implications for the 1990s from Experience in the 1970s and 1980s," p 90.

87. David Poltrack, Television Marketing, pp 240-241.

88. Michael J. Naples, "Impacts of the new Technologies on Advertizing and Advertizing Research," Marketing in an Electronic Age, pp 242.

89. A. C. Nielsen press releases, New York, 1985-86.

90. Poltrack, "Television Marketing," p. 18.

91. ibid.

92. Poltrack, Television Marketing, p 19.

93. ibid.

94. ibid.

95. Poltrack, Television Marketing, p 115.

96. ibid.

97. Arbitron press releases, New York, 1986.

98. ibid.

99. Poltrack, Television Marketing, pp 62-73.

100. ibid.

101. ibid.

102. James R. Smith, "Four perspectives on Media Research in the 1980's, Journal of Broadcasting, Volume 27:2 (Spring 1983):187.

103. ibid.

104. Nielsen Press Releases. New York. 1985-1986.

105. ibid.

106. New York Times, August 17, 1986.

107. ibid.

108. ibid.

109. ibid.

110. ibid.

111. ibid.

112. ibid.

113. Arbitron press releases. New York. 1986.

114. ibid.

115. ibid.

116. ibid.

117. ibid.

118. ibid.

119. Interview with Duncan Mackie.

120. Stephan H. Haekel, "Strategies for Marketing the New Technologies: Commentary," Marketing in an Electronic Age, p 318.

121. Vincent P. Barabba, "Steel Axes for Stone Age Men," pp 107-134

122. ibid.

123. ibid.

124. ibid.

125. Most histories in this area do focus on economic and material issues rather than on the perceptions and psychology of the times. Perhaps that is because these events are still to recent to be viewed from a non-industrial point of view. However, those that have managed to look at this age more neutrally, such as Lord Clark in his BBC television series "Civilization", remark on the materialism of the time not as an achievement, but as a result of the achievement of a new ethos and consciousness that permitted these gains.

126. Vincent P. Barabba, "Steel Axes for Stone Age Men," p.123.

127. Leslie George Gasser, "The Social Dynamics of Routine Computer Use In Complex Organizations" (Ph.D. Thesis, University of California at Irvine, 1984); and Walter Stewart Scacchi, "The Process of Innovation in Computing A Study of the Social Dynamics of Computing"(Ph.D. Thesis, University of Southern California at Irvine, 1981).

128. Leslie George Gasser, p. 181.

129. Vincent P. Barabba, "Steel Axes for Stone Age Men," p 126.

130. Rudolph W. Struse, "The Four P's of Marketing Decision Support Systems: Promises, Payoffs, Paradoxes, and Prognostications," p 151.

131 David Poltrack, Television Marketing, pp 48-49.

132. Rudolph W. Struse, "The Four P's of Marketing Decision Support Systems: Promises, Payoffs, Paradoxes, and Prognostications," p 137-138.

133. ibid.

134. ibid. p.145-146.

135. David Poltrack, Ibid. P.87

136. Interview with John Coleman.

137. ibid.

138. ibid.

139. New York Times, August 17, 1986.

140. ibid.

141. ibid.

142. ibid.

143. ibid.

144. David Bowen, "Rupert Murdoch: Beyond the Wire," Business, September 1986, p 65.

145 David K. Braun, "The New Electronic Media: How Advertizers are Adapting", Marketing in an Electronic Age. p 194.

146. Successful applications of LET exist in several locations in the U.K. and one is now functioning well in British Columbia.

147. David Poltrack, Television Marketing, pp 195-197.

148. ibid.

149 ibid.

150. Rudolph Struse, "The Four P's of Marketing Decision Support Systems: Promises, Payoffs, Paradoxes, and Prognostications," pp 134-153.

151. ibid.

152. ibid.

153. There was no hint of understanding of the application of MDSS in this area in any interview with government agencies. Commercial enterprises occasionally have a good understanding of the possibilities, but over all, remain profoundly ignorant in the eyes of most industry analysts.

154. Rudolph Struse, "The Four P's of Marketing Decision Support Systems," p 153.

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Interviews

Beaubien, Joseph F.	Executive Producer
Coleman, John	Vice-President of Research, C.T.V.
Cournoyer, Armand	Director Marketing Telefilm
David, Pierre	Executive Producer
Dury, Wayne	Loan Officer for Feature Films Royal Bank of Canada
Faulkner, Hugh	Vice-President, Alcan
Greenburg, Harold	Executive Producer
Heroux, Dennis	Executive Producer
Kao, John	Associate Professor, Harvard Business School
Lannel, Bob	Director of Administration, Telefilm
Legault, Ronald	Director of Administration, Telefilm
Lehman, Lou	Head of the Directors Guild of Canada
MacAdam, Bill	Executive Producer
Mallo, Rene	Executive Producer

Massini, Alfred	President Telerep
Matta, George	Executive Producer
Mackie, Duncan	Vice President Research, BBM
Nielson, Richard	Executive Producer
Pearson, Pete	Executive Director, Telefilm
Picard, Laurent	Dean of McGill School of Management
Picard, Andre	Operations Director Telefilm
Poltrack, David	Vice-President of Research, CBS
Roth, Steve	Executive Producer
Spencer, Michael	Secretary, Quebec Producers Association
Tadros, Connie	Editor of Cinema Canada
Walters, William	Vice President Merrill Lynch