"FOR A FEW DOLLARS MORE": Pay Television and the Public Interest

CANADIAN BROADCASTING LEAGUE
LIGUE DE LA RADIODIFFUSION CANADIENNE
PB/BP 1504, Ottawa, Canada, K1P 5R5

"FOR A FEW DOLLARS MORE": Pay Television and the Public Interest

ERRATA

Executive Summary

x Between lines 5 and 6, insert "intrinsic to pay television and those which are".

Line 7: "education" should read "evaluation".

xiv Line 18: "indicates" should read "indicate".

xxii Between lines 4 and 5, insert "television policy becomes clear. When and if a national pay".

Text

2 Line 8: "free-television" should read "fee-television".

3 Line 3: "introductions" should read "introduction".

4 Line 5: "broadcasters" should read "broadcasting".

6 Line 24 and bottom line: "experiments" should read "experimenters".

27 Line 20: "who" should read "whom".

32 Line 21: "manufacturers of" should read "manufactures".

45 Line 5: "passed" should read "passed;".

47 Line 17: should read "would be between 470.9 thousand and 568.8 thousand (adding English".

Line 19: should read "result in total annual revenues of between $45.21 and $54.60 million".

Line 25: should read "$6.78 million or $8.19 million, depending on whether an optimistic".

49 Table III, Annual financial impact, CTV, projection 2: "$559,644" should read "$559,667".

51 Line 15: "simply" should read "simple".
Bottom line: "tape" should read "tap".

63 Line 3: "model" should read "modest".

ERRATA

64	Line 7: delete "which".
65	Line 10: "including" should read "include".
111	Line 18: "subscribing" should read "subscriber".
119	In Variant B, additional funds to CFDC, "30%" should read "20%".

Appendices

B 10	For revised Table X and XI, see attached sheet.
B 11	For revised Table XIII, see attached sheet.
C 16	Table XXVII, viewer loss for Vancouver, decline projection 2, "239,164" should read "239,174".
C 17	Table XXVIII, financial impact, CTV, projection 2, "$559,644" should read "$559,667".
E 1	Table XXIX, length of the following programmes, Police Surgeon, Excuse My French. Swiss Family Robinson, and Beachcombers, should read ½ hour.
G 8	Figure 7, Canadian Media Development Fund, proportion allotted to CFDC, "30%" should read "20%".

Table X: Detailed Penetration Projection for English Canada[4]

City	Projection #1 (i)	Projection #2 (ii)	Total Subscribers
Toronto	145,217	116,081	647,308
Hamilton	23,826	17,652	124,550
Vancouver	39,651	28,243	305,900
sub-total	208,694	161.976	1,077,758
Winnipeg, Man.	29,629	23,569	137,274
Calgary, Alta.	14,224	9,569	97,500
Edmonton, Alta.	19,090	15,120	92,000
Victoria, B.C.	8,851	8,050	81,108
Kitchener, Ont.	15,047	10,304	84,000
London, Ont.	13,453	11,654	92,000
Ottawa, Ont. (iii)	29,335	22,216	147,000
Guelph, Ont.	2,182	3,076	19,961
Kingston, Ont.	4,582	4,686	14,200
Peterborough, Ont.	2,946	2,084	18,600
Sarnia, Ont.	3,552	2,721	17,793
North Bay, Ont.	1,447	1,552	4,488
St. Catherines-Welland, Ont.	8,523	8,883	23,500
Thunder Bay, Ont.	4,065	2,607	26,375
St. John, N.B.	4,569	4,574	16,000
Halifax, N.S.	7,180	5,687	34,600
	377,368	298,328	1,984,157

(i) Using Equation 1, p. 6.
(ii) Using Equation 4, p. 8.
(iii) Excludes Hull, Quebec.

Table XI: Cable Systems Excluded in Table IX

Cable systems over 6,000 subscribers:

No. of systems - 19
Total no. subscribers - 213,676
No. pay subscribers at avg. 19.15% penetration - 40,919. Cum. total 418,287
No. pay subscribers at avg. 15.14% penetration - 32,351 Cum. total 330,678

Cable systems 1,000 - 6,000 subscribers:

No. of systems - 73
Total no. subscribers - 199,143
No. pay subscribers at avg. 19.15% penetration - 38,136. Cum. total 456,423
No. pay subscribers at avg. 15.14% penetration - 30,150. Cum. total 360,828

Table XII: Detailed Pay Penetration Projections for French Canada (i)

City	Projection #1	Projection #2	Total Subscribers
Chicoutimi	1,219	1,318	3,700
Quebec	13,585	14,519	41,500
Sherbrooke	5,435	4,570	24,759
Montreal (i)	59,106	59,628	295,000
Trois Rivières	3,532	2,759	16,900
Hull	4,544	3,196	26,000
Shawinigan	1,807	1,381	9,500
	89,228	87,371	417,359

(i) The use of projections from the U.S. experience may be especially problematic for the French Canadian population.

(ii) Includes adjustment (downward) to account for proportion of Montreal population which is not French speaking.

Table XIII: Cable Systems Excluded in Table XII

Cable systems over 6,000 subscribers:

No. of systems - 4
Total no. subscribers - 50,000
No. pay subscribers at 21.38% avg. penetration - 10,690
Cum. total - 99,918
No. pay subscribers at 20.93% penetration (proj. #2) - 10,465
Cum. total - 97,836

Cable systems 1,000 - 6,000 subscribers:

No. of systems - 28
Total no. subscribers - 58,447
No. pay subscribers at 21.38% avg. penetration - 12,496
Cum. total - 112,414

FINAL REPORT

ON

EVALUATION OF STRUCTURAL MODELS OF PROPOSED PAY TELEVISION SERVICE: THEIR EFFECT ON EXISTING BROADCAST SERVICES, POTENTIAL FOR EXPANSION OF THE CANADIAN PRODUCTION INDUSTRY AND CONTRIBUTION TO DEVELOPMENT OF THE BROADCASTING SYSTEM IN THE PUBLIC INTEREST.

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"For a national culture, if it is to flourish, should be a constellation of cultures, the constituents of which, benefiting each other, benefit the whole."

T.S. Eliot, Notes Towards the Definition of Culture

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EXECUTIVE SUMMARY

I CONCLUSIONS

a) INTRODUCTION

This report is designed to provide a preliminary analysis of some of the more salient policy issues raised in consideration of pay television. Pay television does not exist in a vacuum. If it is introduced in Canada, it must be viewed as part of a total mass communications system. Above all else, this consideration has governed our analysis.

In a sense, all television is "pay-TV". What is now proposed is essentially "fee-television" for profit: service of a type available on "free" TV, but differentiated because of such factors as newness of production and lack of commercial interruptions. Our research indicates that at least initially, pay television, as it has now been proposed, will not offer programming substanially different from regular television. The programming mix will probably be different, but the type of programming will not.

b) APPROACH TO ANALYSIS

We have analysed a variety of current proposals and possibilities for the development of pay television in Canada. In examining the question of pay television, we have distinguished between those merits and drawbacks which are extrinsic. Assessment of intrinsic merit was based on: an education of pay television's potential contribution to the variety of Canadian media; and on an examination of actual audience demand for the new service to establish whether this demand is a reflection of a nationally-based sentiment, or simply a demand developing in a few major urban centres. We also examined the apparent assumption that American development of pay television service implies an automatic parallel development in this country.

Evaluation of the extrinsic merits attributable to introduction of pay television involved examination of the following issues:

a) will pay television, in the form in which it is presently proposed, be an interim step in the replacement, over time, of the present mixed system by a predominantly pay system?

b) will pay television, as it is presently proposed, be an interim step in the development of a system where dedicated channel television would be used for specialized services and "free" television for general services?

c) should pay television be looked at principally as a means of developing a revenue base for the Canadian program production industry?

d) if so, should the policy be one of maximum development of the revenue base?

c) PUBLIC INTEREST CRITERIA

Our intent has been to examine the question of pay television on the basis of the value criteria of the public interest. Our premise has been that the public interest requires that existing Canadian broadcasting services not be damaged by the introduction of pay television; that services which are now "free" not be siphoned off by pay television; that public sector broadcasting (CBC/Radio-Canada) and public interest broadcasting be strengthened; that the cost for the product which the consumer receives be reasonable; that the livelihood of existing movie distribution and exhibition systems not be unduly harmed; that a reasonable Canadian content quota for pay television be established; and that the greatest possible share of pay television revenues be channelled back into the Canadian program industry to promote an improvement in the quality of Canadian programming. These are the major criteria we have used in assessing whether, and how, pay television should be introduced to Canada.

d) CURRENT PROPOSALS

After analysing existing proposals, we concluded that none of those presently on record sufficiently address issues relating to the public interest. Our conclusions, based on an analysis of these proposals, are as follows:

1) There is sufficient concentration of ownership within both the cable television industry and the private broadcasting industry to suggest the danger that their control of a pay television network would tend to lead to effective ownership of the system by a small group of established interests.
2) None of the proposals from the private sector makes sufficient provision for lack of damage to public sector or public interest broadcasting in Canada.
3) If one extends the premise of many of the existing proposals, it appears that strong, almost dependent ties might be established between Canadian pay television operators and American program packagers. The semi-monopolistic nature of the program packaging industry in the United States (dominated largely by Home Box Office, a subsidiary of Time-Life, Inc.) raises questions about control which might be exerted by interests outside this country. Our concern is particularly appropriate in light of established government concern as expressed in Bill C-58.

4) None of the current proposals adequately covers the question of a parallel French service.
5) While regulatory guidelines would be necessary for and have been assumed by most private proposals, nevertheless, a pay television service which is privately owned may be particularly vulnerable to increasing advertiser pressure for access to the new market created by pay television, and the problem of "siphoning".
6) None of the suggested models for ownership (with the possible exception of a broadcaster-owned model) sufficiently addresses the problem of the relationship of pay television to the total communications system. Guarantees that program production for the "free" sector will be maintained at least at the present level and even augmented substantially, must be incorporated into any pay television model.

(i) Pay Penetration and Revenues

We analysed the potential impact of pay television, in terms of its possible penetration rates and revenues. The results were as follows:

1) It was concluded that the 25% penetration rate figure for mature American pay television systems could not be used for the Canadian situation without the use of statistical controls to account for

differences between the American and Canadian media environments. Our findings indicate that Canadian penetration rates are likely to be only 10 to 20% during the first two to five years of pay-TV operation in Canada.

2) Even using the optimistic assumption that all Canadian cable systems with over 1,000 subscribers were to carry pay television, the new system's total maximum revenue after a build-up period, would be approximately $45.75 million annually.

(ii) Impact on Existing Broadcasting Systems

The impact of the introduction of pay television on existing broadcasters was assessed by calculating their potential loss of advertising revenues attributable to decline in audience.

Results of this analysis indicates that each of the two existing English-language national networks will lose between one and four hours of viewing per week from each person in a home subscribing to pay television. At an estimated 4.5¢ per viewer-hour for advertising revenue, a pay-TV system operating in Toronto, Hamilton, and Vancouver, would cause a revenue loss of between $1.3 million and $3 million for CBC and CTV broadcasters in those areas.

(iii) Hardware Costs

A preliminary investigation of costs suggests that, under an ownership pattern in which the pay television network owns all system equipment including decoders, a nation-wide distribution system utilizing satellite channels in conjunction with local delivery by cable, would not necessarily be less viable than a tape/cable distribution system covering only major centres. However, for a variety of structural reasons, privately-owned pay television systems similar to those currently proposed, might be unlikely to initiate such a system without regulatory encouragement.

Total estimated capital costs for pay television vary substantially according to which type of "decoder" technology is employed. Since decoders represent the major part of capital investment, total capital costs for a Canada-wide system were projected to range between $7.5 million and $23.9 million, depending on the type of hardware used.

The total proportion of costs at the local level -- the amortization of descramblers (including interest charges), billing costs, installation costs, sales commissions, etc. -- would amount to between 17% and 40% of pay television's gross revenue depending on the type of descrambler technology employed.

(iv) Canadian Content

Under most existing proposals, a certain percentage of gross revenues (usually 15%) is to be devoted to Canadian programming. Methods of distributing this revenue range from a grant to the Canadian program production industry collectively to individual commissioning and co-production of programs. Our analysis has related the percentage of revenues devoted to Canadian programming to the actual amount of Canadian content which could be produced.

1) If maximum annual revenues are approximately \$45.75 million, a "tap" of 15% would yield \$6.86 million for Canadian program production. The most optimistic projections for pay penetration might yield up to \$8 million for Canadian production.
2) The actual amount of money available for Canadian production in the first few years of pay television will probably be lower than the projected \$6.86 million. If satellite distribution is not employed and the signal is available only in major centres, revenues devoted to Canadian production in the first year could be as low as \$1 million.
3) Using the most optimistic revenue projections, only about 7% of programming time (assuming constant repeat ratios) could be filled by Canadian content in the first year. In subsequent years, this

figure could rise to approximately 17%. Under some existing proposals, only about 3% of programming time in the initial stages would be filled by Canadian content. These figures assume that the introduction of pay television will occur in an unconstrained fashion, but regulatory guidelines could improve the ratio of Canadian to foreign programming. In the absence of a special subsidy, French-Canadian production would be expected to occupy an even lower percentage of programming time on a parallel French-language pay system (due to the lower gross revenues of such a system).

4) There exists a danger that a pay television network might undertake a "packaging agreement" under which an American distributor would provide American programming at a reduced cost in exchange for suitable Canadian material. While this would effectively reduce the cost of American programming for the Canadian pay television operation, it could significantly reduce potential benefits to the Canadian film production industry.

e) GENERAL CONCLUSIONS

Our analysis of existing pay television proposals and consideration of the general question of the introduction of pay television to Canada has led to the following conclusions:

1) The high cost of technology and the limited availability of cable channel space suggest that "pay-per-program" modes of operation are less likely to be viable in Canada in the initial stages of pay television development. In any event, an early pay-per-program model could be expected to concentrate on mass appeal programming not dissimilar to that which would be provided on a "pay-per-channel" basis. The development of new technologies within the next decade may alter this situation. With its projected low penetration rates and the limited availability of channels, it would appear that pay television is an inappropriate delivery system for minority services.

2) Pay television, initially, or even after it reaches the first plateau of subscriber build-up, is unlikely to make much of a dent in Canadian program production and program financing problems.

3) There is little evidence to suggest that existing proposals for the development of pay television in Canada (even if modified) meet our public-interest criteria regarding the amount of Canadian content which could be provided, extension of service throughout the country, provision of an adequate French-language service, and "broad-gauged" support of all aspects of the developing independent Canadian film and video production.

4) Initial organizational and ownership patterns of pay television could strongly influence future developments in "in-home entertainment" in Canada. Immediate introduction of pay television services using only existing technology could hinder the application of improved technologies as these are developed.

II GENERAL RECOMMENDATIONS

We offer the following recommendations concerning the structure of pay television and the process under which such a structure might evolve:

1) Most immediate and apparent is the need for a period of public policy development and consultation on a much expanded basis. The regulatory requirements for pay television must be examined by Parliament, following the issuance of a government "White Paper" and the opportunity for broad discussion and consultation with both the public and industry. Such legislation must be phased to encompass a number of "defensive" considerations (e.g., to eliminate the threat of unlicensed pay television operations) and to provide for essential test-bed analysis. Pay television should only be permitted in Canada following its examination in an experimental situation.

2) If and when pay television is introduced to Canada, it should be closely linked to evolving patterns of "free" (broadcast) television, particularly television under the auspices of public agencies (CBC/Radio-Canada, and provincial educational networks).

3) The impact on the existing system of the creation of additional broadcasting/communications networks should be minimized. Ownership and revenue re-cycling must be designed to strengthen and supplement existing services. The present argument that devoting a percentage of pay-TV revenues to the Canadian program production industry will offset damage to the existing broadcasting services is not sufficient rationale for the introduction of pay television at this time.

4) Cable systems, as such, should not participate in pay television ownership, network operation, programming, or profits. Rather, cable systems should be looked on as delivery systems interfacing with subscribers, and should be required to provide such service (via a rental of facilities) to the pay television network.

In the long-run, this is part of a policy evolution leading to cable (and ultimately its analogues, e.g., fibre-optics) being regarded and regulated as common-carriers under public-utility provisions. We strongly urge that the present co-mingling by cable companies of carrier responsibilities and ownership/programming responsibilities <u>not</u> be expanded (particularly at the national network level), either directly or through their indirect control of holding companies.

5) We urge that decisions on a "single gateway" for foreign (largely American) programming via a satellite-link be deferred until the basic outlines of a pay television network is established, we urge that the "single gateway" be incorporated in its organizational structure.

6) It is necessary to seek a financial base for Canadian program production in a wider area than pay television per se, and to see that revenue is made available not only for production of pay television's Canadian programming requirements, but also, on an augmented basis, for other parts of the broadcasting communications system (network television, local programming, community channels, and in-theatre motion pictures).

7) Any pay television system which is licensed should, from its inception, be required to carry a significant proportion of Canadian content. If a system cannot build significant Canadian content into its initial schedule, there is reason to doubt seriously the wisdom of encouraging the development of the system.

8) An experimental pay television test-bed should be established in a small-sized metropolitan area. Created under licensing and regulatory conditions which would not

imply long-term commitment for ownership and operation of the system, the test-bed would allow for evaluation of various technologies and assessment of the social and cultural impacts of the new service.

III RECOMMENDED STRUCTURE FOR PAY TELEVISION

Based on our research findings and predetermined public/interest criteria, this study group sees some merit in the following proposal for the structure of pay television in a post-experimental phase:

1) A pay television authority should be established, either as an independent public agency or as a consortium of public and private over-the-air broadcasters. In either approach, the distinction should be maintained between the programming function of the authority and cable or other distribution of the signal.

2) In the broadcast-consortium model, the publicly-owned broadcasters would retain majority ownership. Provisions might be made to allow for participation by provincial broadcasting/communications bodies (e.g., educational television) providing majority ownership remains in the hands of CBC/Radio-Canada or any future derivatives of CBC/Radio-Canada.

3) If the consortium alternative is adopted, actual administration of the pay television authority should be engaged in by executives of the authority who are not otherwise employees of any of its constituent organizations.

(i) Functions of the Pay Television Authority

4) The pay television authority should be responsible for:

   a) networking of pay television and arrangements for local distribution via cable and/or other delivery systems;
   b) arrangements with local delivery systems on a rental-of-facility basis;
   c) ownership of all hardware specifically related to pay television (e.g., "decoders");
   d) commissioning Canadian programming for the pay network;
   e) acquisition of foreign programming for the network;
   f) any after-sales of Canadian material produced for the network.

(ii) Signal Delivery

5) Provisions should be made requiring cable companies to provide one pay channel (two, if necessary for English and French service) through rental to the pay television authority. The rental charge should be based on a formula derived from the cost of service plus a profit margin to be determined.

(iii) Profits

6) In the first five years of post-experimental operation, profits to the system should be restricted to not more than 10% of revenues per year. After the first five years, as the system matures, the profit restriction should be periodically reassessed.

(iv) Support of Canadian Program Production

7) After servicing of debt, system development, and system operating charges, the first charge against revenues of the pay television authority should be the financial support of Canadian production for the system. Differences between revenues and costs of developing and operating the system (including regulated profits) should be channelled directly into a Media Development Fund. A significant proportion of these funds should be used to purchase programming from independent Canadian production houses for use by the broadcasting networks.

(v) Canadian Content

8) A schedule of Canadian content on the pay television network should be implemented and regulated by the CRTC.

(vi) Media Development Fund

9) In the process of this investigation, it became evident that the expansion and improvement of both Canadian program production and Canadian broadcasting demands a financial base substantially greater than that which pay television alone can provide. In order to address this priority, therefore, we recommend that the principle of "those who benefit shall pay" be extended to all cable companies and their subscribers, through a direct tap on cable systems and their subscribers.

10) Revenues for the Media Development Fund should be derived from:

   a) a $10 average surcharge levied directly on all cable television subscribers;
   b) a tax of five percent of cable television revenues;
   c) the surplus of revenues from pay television, on introduction of the service.

CHAPTER ONE

INTRODUCTION

This report is designed to provide a preliminary analysis of what are viewed as some of the more salient policy issues raised in consideration of pay television. Pay television does not exist in a vacuum. If it is introduced in Canada, it must be an integral part of the total broadcasting system. Above all else, this consideration has governed our analysis.

The term "pay television", for what has been proposed by the Minister of Communications, the CRTC, and various interested groups, is somewhat of a misnomer as a special designation for a new service. All forms of television have to be paid for, whether through taxes and the increased cost of goods advertised on television or through direct payment by a subscriber to a cable operator.

Various approaches have been used to pay for broadcasting. Advertising is the most common source of revenue: hence, a key question is the size of audience for any given show or station. Payment of an annual licence fee by the subscriber was once used in Canada to generate revenues, and in Britain, subscribers still provide the BBC with about $100 million a year from licence fees.[1] Direct payment for television has again become common in Canada since the introduction of cable. In the Netherlands, various groups receive a share of network program time in proportion to the size of their membership. To be counted as a member of an organization an individual must have purchased a television licence. The organizations receive a percentage of this licence fee.[2] Revenue is also derived from advertising, but forty percent of that revenue is diverted to newspapers and magazines.[3] Public broadcasting endeavours in the United States rely on subscriptions from viewers for much of their revenue. In each of these cases, directly or indirectly, viewers pay for the television they watch.

In a sense, therefore, all television is "pay-TV". What is now proposed is essentially "fee-television" for profit, service of a type available on "free" TV, but differentiated because of such factors as (i) newness of production (e.g., first-run of first-subsequent-run movies); (ii) no commercial interruptions; and (iii) special events (e.g., sports of cultural), specifically not shown on "free" TV, even though not perceptibly different from the type shown on the regular television system. This "free-television" will consist of "dedicated channels"[4] for which the viewer pays a monthly per-program charge.

Direct payment for the reception of special programs and/or services via television has long been anticipated by various analysts. Such "dedicated channels", however, were seen largely as meeting minority audience needs (e.g., foreign-language programming) or providing special programming or services significantly different from what is available on "free" TV. Our research indicates that, at least initially, pay television, as it has now been proposed, will not offer programming substantially different from regular television. The programming mix will probably be different, but the type of programs will not.

The following terms of reference were used as guidelines for the analysis contained in this report.

First, we have examined the impact of various structural forms of pay television upon viewers and viewer choice. The issue of the potential fragmentation of audience created by the introduction of a new broadcasting service has been considered. In order to evaluate this problem it has been necessary to estimate the potential rate and degree of penetration of pay television in Canada. The type of programming likely to be provided by pay television has also been examined.

In addition to these "hard data" considerations and in the light of their evidence, an evaluation of the social impact of the introductions of pay television is needed. While this type of analysis is beyond the scope of this report, questions such as the impact on the poor of the introduction of a relatively expensive service should be considered. Further research is needed also in the area of the "isolating" nature of television in general and pay television in particular. If the living room replaces the movie theatre as the site for the showing of movies, then a valuable community element may be lost.

Second, we have examined the problems arising from and possible solutions to the need for pay television service which should be national in character, reflecting the bicultural nature of Canada, and programming in the two official languages. It is our considered opinion that since pay television is a form of broadcasting, its implementation must be consistent with the spirit of the Broadcasting Act. Our evaluation of possible models for pay television has assumed the necessity for a bilingual service.

Third, we considered the question of the impact of pay television on the independent program production industry in Canada. In order to answer the question fully, we have examined the need for a Canadian content quota for pay television. We have also considered the existence of dubbing facilities available in Canada and the possibilities of program exchange between English and French pay television. In order to estimate the financial benefits which may result from the introduction of pay television, we have estimated the potential revenues to be derived from the new service and evaluated various methods of distributing these revenues.

The fourth concern is reflected in an assessment of potential damage to the existing broadcasting system. In order to assess the possible damage, it has been necessary to examine the problem of audience fragmentation and the potential loss of advertising revenues to broadcasters. The issue of the potential loss of programming to broadcasters through "siphoning" has been considered as well. We have also considered mechanisms for assuring that the broadcasters system will benefit from improvements in the Canadian production industry.

Fifth, the study made extensive use of available research materials on the subject of pay television. Appendix "A" is a bibliography of materials which have aided us in the preparation of this study.

Our intent has been to examine the question of pay television on the basis of the value criteria of the public interest. Our premise has been that the public interest requires: that existing Canadian broadcasting services not be damaged by the introduction of pay television; that services which are now "free" not be siphoned off by pay television; that public-sector broadcasting (CBC/Radio-Canada) and public interest broadcasting be strengthened; that the cost for the product which the consumer receives be reasonable; that the livelihood of existing movie distribution and exhibition systems not be unduly harmed; that a reasonable Canadian content quota for pay television be established; and, that the greatest possible share of pay television revenues be channelled back into the Canadian program production industry to promote an improvement in the quality of Canadian programming. These are the major criteria we have used for assessing the public interest aspects of the question whether, and how, pay television should be introduced to Canada.

ENDNOTES

1. Timothy Green, The Universal Eye, (London, 1972), p.90.
2. Ibid., pp.169-170.
3. Ibid., p.170.
4. The term "dedicated channels" includes both pay-per-program and pay-per-channel services.

CHAPTER TWO

PAY TELEVISION: ISSUES AND ASSUMPTIONS

a) HISTORICAL DEVELOPMENT OF PAY TELEVISION

Pay television per se is not a new idea. In the early sixties STV experiments were carried out by an American group, Telemeter, in Etobicoke, Toronto. The experiment was designed to test public acceptability of the idea of pay television, and inasmuch as it answered that question, it was not a failure. However, the experiment did prove that at that time and in that form, pay television was not a viable possibility.

The equipment used in the Etobicoke experiment was somewhat primitive by today's standards of technology. Payment for the service was made by inserting coins into a large unwielding box, which also contained a tape recorder for the purposes of collecting data indicating hours of viewing and programs selected. The box was not a particularly "secure" device, and the experimenters faced the problem of viewers attempting to recover their money.

The programming for the pay channels included movies and made-for-pay specials. Depending on the day of the week, two or three channels were available to the viewer, in addition to a "barker" channel, which supplied information on the nature and cost of upcoming programs. A technical problem was revealed when it was found that viewers switching briefly to another channel to check alternative programs could not switch back to the original channel without depositing more money.

The test group selected for the experiment contained a cross-section of economic groups within the population. Although the experiments had access to 6500 data and payment collection boxes, only 5500 were actually installed. In their analysis of the test results, the experiments indicated that the pay service was used most often by the lowest income group and least often by the highest income group. This information could perhaps be used in an evaluation of the social impact of the present pay television proposals.

A similar experiment was carried out in Hartford, Connecticut in the middle sixties by Zenith Radio Corporation and its subsidiary, Teco Inc. The group charged both an annual and per-program fee. The programming included movies, sports, entertainment production (concerts, ballet, Broadway plays, etc.), educational features, and a special series of medical presentations limited to 100 subscribing doctors.

The FCC limited the Hartford experiments to 5000 subscribers. Subscribers paid on the average, approximately $113 per year for the service. The largest number of subscribers fell within the middle and low-middle income range. The lowest and highest income ranges provided few subscribers.

(i) The American Experience

Following these two experiments, there was an hiatus before the Federal Communications Commission in the United States authorized both broadcast pay television (STV) and pay cable television in 1970.[1] However, large scale experiments and implementation of the service did not begin until two years later. The American government has closely regulated the programming which pay systems are permitted to offer.

Pay television began in the United States as a service supplied to hotels. Since then, it has grown to the point where a few semi-monopolistic programming agencies supply systems across the country. The largest of these program suppliers is HBO, a subsidiary of Time-Life. In the last few months, HBO has purchased other program suppliers, including TeleMation Program Services. According to a summary of pay cable systems in a recent edition of the Paul Kagan Newsletter, HBO and TeleMation supply programming to 78% of the pay television market in the United States.[2] Optical Systems supplies 13.7% of the market; however, the films for its program packages are supplied by TeleMation. HBO uses RCA's communications satellite to distribute programming across the country and Optical uses Western Union's satellite. Based on the figures supplied by the Kagan summary, the average monthly charge for pay cable in the United States is approximately $8.

(ii) Developments in Canada

The growing success of American pay television has revived interest in the subject in Canadian circles, particularly in the cable industry. As far back as 1972, Fred Welsh Antenna Systems, a company owned by the president and vice-president of Premier Cablevision, announced that an agreement to form a Canadian company which would provide optional cable services to cable television systems in Canada had been reached with Optical Systems Corp. of California. Premier Cablevision had an option to buy out the share of the company owned by Fred Welsh Antenna Systems if and when the CRTC changed its regulations about the allowable percentage of foreign ownership of Canadian broadcasting outlets. The converter boxes which the company proposed to use for the service had been developed by Optical Systems.

Pay television was made available in Toronto hotels in 1972. The system was operated by TransWorld Communications. Since then, 80% of TransWorld stock has been purchased by Rogers Cable Communications. Computer Television, a subsidiary of Time-Life and Columbia Pictures, retained a twenty percent interest in the system.[3]

Other developments leading to the potential establishment of a Canadian pay television system have taken place since 1972. Canadian cable operators have expressed the fear that competitors not subject to CRTC regulation may corner the market before they are allowed by the CRTC to proceed with their plans for implementing a pay television service. Rogers, Premier[4] (which purchased 90% of Keeble Cable shares in 1974)[5], and Canadian Cablesystems Ltd. have all produced proposals for pay television. Maclean-Hunter has purchased a cable system in New Jersey and is experimenting there with microwave links and a pay service whose programming is supplied by HBO. Canadian Cablesystems and Agra Industries have purchased an option from Telesat for the exclusive right to distribute television programming by satellite to cable television systems.[6] This agreement opens the way to a national network of cable systems which would facilitate the introduction of a national pay cable service.

More recently, a group called Network One Inc. has established a pay-per-view movie system in "Crescent Town", an apartment complex in Toronto's Scarborough. It purchases its programming from TeleMation, an American firm affiliated with HBO. Network One is outside CRTC jurisdiction because it uses a closed-circuit videotape technique to present its programming.

Other Canadian groups have expressed interest in the hardware required for the transmission and reception of scrambled pay television signals. Electrohome of Canada is slated to manufacture a descrambler unit for STV designed by an American firm, Pay Television Corporation. Welsh Communications and York Cablevision have already ordered decoding units from an American manufacturer, Tanner Electronic Systems Technology Inc. (T.E.S.T.).[7]

b) PAY-TV AS A CANADIAN ISSUE

With so many groups interested in implementing pay television services, the CRTC has been forced to raise the question of pay television as a public issue. In its position paper issued in

February 1975, the Commission stated its opinion that although public interest in the issue of pay television had revived, the introduction of the service must be preceded by "public consideration of a number of major concerns".[8] The CRTC indicated special concern for the issues of audience fragmentation, the effect of pay television on the Canadian broadcasting and program production industries, and "siphoning". While suggesting ways in which pay television might be introduced in Canada, the Commission stated at that time its reservations about the conclusiveness of previous pay television experiments, and the answers provided to the major concerns it had expressed.

Following a public hearing into the question of pay television and other issues held in June 10, 1975, the Commission released its "Policies Respecting Broadcasting Receiving Undertakings (Cable Television)" (16 December 1975). The Commission stated its belief that the introduction of pay television would be premature at that time. However, it also stated its willingness to continue to study "the means by which pay television can be introduced in a manner consistent with the preservation and development of the existing broadcasting system".[9]

In an address to the Canadian Association of Broadcasters on April 26, 1976, the Chairman of the CRTC, Harry Boyle, acknowledged the inevitability of pay television. He asked the question, "Will pay-TV in Canada be another conduit for siphoning off more of our resources for foreign production industries or will it include reasonable incentives for Canadian production?"[10] He also demanded that the broadcasters play a more active role in shaping a Canadian policy for pay television.

In an address to the Canadian Cable Television Association five weeks later, the Minister of Communications also stated that the introduction of pay television in Canada is inevitable. She suggested that the time had come to develop a plan for its implementation that would maximize potential benefits to the existing broadcasting system and to viewer choice. Included in her speech were three objectives for the structure of pay television:

1. It must provide a range of programming which does not duplicate that now offered by broadcasters and must do so without siphoning programs from the broadcasting system.

2. It must ensure the production of high-quality Canadian programs that Canadians will watch.

3. It must ensure that programs are produced in Canada for international sale.[11]

The minister suggested three possible alternatives for the ownership structure of a Canadian pay television system:

1. Individual licensees.

2. A consortium which could involve various combinations of cable operators, broadcasters and representatives of the Government.

3. A pay television network which could be either a public or private corporation.[12]

In her analysis of the three options, the Minister stated that she felt the first option was undesirable, that the second option should be carefully studied because it allowed a distribution of revenues, and that the third option had the advantage of diminishing the conflict between the broadcasters and cable operators. The Minister emphasized her concern that "on introduction into Canada pay-TV must ... play its part to ensure the growth and development of the Canadian program production industry and the broadcasting system".[13]

On the same day, the Chairman of the CRTC released a statement of the CRTC's position on pay television. Mr. Boyle stated his opinion that the Minister's remarks earlier in the day were the beginnings of the enunciation of a policy of "cultural security" for Canada. He also expressed his hope that pay television would provide one means to go beyond the mere introduction of new technology to the shaping of "a conscious and dedicated restructuring of the national broadcasting and cultural system".[14] At that time, he called for further submissions to the CRTC concerning pay television. Rather than addressing the general question of pay television, these submissions were to cover specific proposals for the "establishment of entities to formulate and distribute pay-TV program packages in French and in English".[15]

On August 10, 1976, in a speech delivered to a conference held by the Canadian Broadcasting League, the Secretary of State stated his reservations about the benefits of pay television. He raised the issues of Canadian content, anti-siphoning legislation, and the application of revenues from pay television to the Canadian production industry. His speech stressed the need for careful planning of the way in which pay television is to be introduced and administered. The effect of the introduction of pay television on the CBC's plans to improve the quality of regional programming and local participation in network programming was also emphasized by Mr. Faulkner. He indicated that he favoured Mme. Sauvé's suggestion that a pay television distribution network should be "owned and operated independently from existing over-the-air broadcasters or cable interests".[16]

Following the release of the CRTC's position paper on pay television in February 1975, the Canadian Broadcasting League presented a brief to the Commission for its Public Hearing in June. The League stated its belief that the introduction of pay television at that time could only be justified as a means of transferring funds from cable to over-the-air broadcasters. The issue of siphoning was also considered by the League at that time.

c) PAY-TV PROPOSALS

At the CRTC hearing in June 1975 and since that time, many groups have submitted proposals for pay television systems. Table I outlines the major aspects of a selected group of proposals.

TABLE I: MAJOR ASPECTS OF A SELECTED GROUP OF PROPOSALS

	Date	At Least 50% Private Ownership	At Least 50% Public Ownership	Pay-Per Channel	Pay-Per Program	STV	Cable (including satellite, microwave)
CCTA	June 1975	X		X			X
Video Program Services	June 1975	X		X	X		X
Advertel	June 1975	X		X	X		X
Bell Canada	June 1975	X	X		X	X	X
CITY	Aug. 1976	X		X		X	X
CAB	June 1975	X			X	X	
Maclean-Hunter	June 1975	X		X		X	X
Council of Cdn. Filmmkrs.	June 1975		X		X	X	X
PTN	Aug. 1976	X		X			X
CTV	Aug. 1976	X		X			X

N.B., (1) Where alternatives were suggested in a proposal, both options have been indicated.

(2) Dates do not necessarily refer to formal proposals, but rather to last available information.

d) ARGUMENTS FOR AND AGAINST PAY-TV

The various proposals and position papers on the subject of pay television have offered many arguments both in favour of and against the introduction of pay television into the Canadian broadcasting system. We have included here those arguments which we have attempted to evaluate in this report.

(i) Main Arguments in Favour of Pay Television

1. Pay television will add variety to the programming available to the viewer through its presentation of new movies, special events, and additional sports events.

2. The service will be paid for directly by the user, who therefore has increased control over his choice of programs.

3. There is significant public demand for the service.

4. The technology already exists, and therefore no major new technology is required.

5. "Pay" can be (and to some extent is being) bootlegged. There is therefore a need to legalize it and encourage involvement by substantial Canadian interests. There is a need to block unregulated pay-TV service to apartment complexes (e.g., Network One in Toronto) and to prevent possible over-the-border STV from nearby American centres. A situation has been envisioned whereby Canadian subscribers could pay a rental fee for the descrambler unit rather than for program channels in an attempt to by-pass Canadian regulatory authority.

6. There is a possibility that significant revenues from pay television will be channelled back into the Canadian production industry.

7. In the long run, the introduction of pay television now can lay the base for specialized services and programming for minority groups.

(ii) Main Arguments Against Pay Television

1. The argument that pay television will provide increased variety in programming choices is apparent rather than real.

2. It will be extremely expensive for the consumer, particularly if offered via cable.

3. Pay television will add to the problems of audience fragmentation and result in a reduction of the revenue base for services funded through advertising. It will therefore have a negative impact on the Canadian production industry.

4. Programs will be "siphoned" from existing broadcasting services, and the competitive costs of programming throughout the broadcasting system will therefore rise.

5. Pay television will have a negative effect on public broadcasting, which is highly vulnerable to the impact of loss of advertising revenue and the siphoning of programs.

6. Bootlegging can be countered in other ways than by legalizing private pay television.

7. The possible revenue base for Canadian production has been overstated. In any event, there will be more high-quality American productions introduced into Canada to compete with Canadian programming. This programming will be paid for by revenues which will be diverted to American packagers, rather than being channelled back into the Canadian production industry. Whatever is gained by the channelling of production funds into the Canadian production industry will be

offset by decreasing capabilities of "free" TV networks suffering from fragmentation, etc.

8. The services which are presently being proposed are quite a distance away from offering service to minority interests and outlying areas.

e) ASSESSING THE BALANCE OF THE ARGUMENTS

In order to assess the balance of these arguments, certain questions must be answered. Should pay television be introduced in Canada? If it is introduced, should it be in the form proposed by the private interests (most notably the cable operators) or should it be separate from those interests? If it is introduced, what safeguards are needed? What is worth protecting or balancing in the existing broadcasting system?

In answering these questions and resolving the arguments given above, there are two orientations which must be followed. First, one must examine the question of pay television in the light of its intrinsic merits. The question must be answered whether pay-TV would contribute substantially to the variety of Canadian media at the present time. Is there significant demand for pay television? Is that demand highly concentrated in certain Canadian centres or does it reflect a nation-wide sentiment? Does American development of pay television require a parallel Canadian service?

Secondly, one must examine the question of pay television in the light of extrinsic considerations. Would pay television in the form in which it is presently proposed be an interim step in the replacement, over time, of the present mixed system by a predominantly pay system? Would pay television as it is presently proposed be an interim step in the development of a system where dedicated channel television would be used for specialized services and "free" television for general services? Should pay television be looked at principally as a means of developing a revenue base for the Canadian production industry? If so, should the policy be one of maximum development of the revenue base?

Our fundamental assumption is that pay television, if introduced in Canada, must be an integral part of the total broadcasting system. We further assume that if introduced it must be a national service, bilingual in character, and that it must, in accordance with the terms of the Broadcasting Act, "be in English and French, serving the special needs of geographic regions and actively contributing to the flow and exchange of cultural and regional information and entertainment". Guiding our study has been the assumption that there are more alternatives to the introduction of pay television to Canada than an unconstrained commercial model.

If, however, pay television develops in Canada in an unconstrained fashion, we assume that it will develop along the lines of the existing American models, i.e., it will be a commercial operation which uses a pay-per-channel cable method of distribution, and which relies primarily on movies for its programming.

We assumed we had to investigate whether a well-developed body of knowledge applicable to an analysis of the potential impact of pay television on the Canadian broadcasting system existed. Our initial research indicated that such a body of knowledge did not exist, and that in order to use American data to make projections for Canada, statistical controls would have to be applied to account for certain differences between the Canadian and American situations.

We have assumed that the difference between intrinsic and extrinsic considerations of pay television is significant. We have attempted to distinguish between arguments which justify the introduction of pay television on its intrinsic merits and those which justify it on the basis of its extrinsic merits.

As stated in Chapter One, our primary criteria have been those of the public interest. Our premise has been that the public interest requires: that existing Canadian broadcasting services not be damaged by the introduction of pay television; that services which are now "free" not be siphoned off by pay television; that public-sector broadcasting and public-interest broadcasting be strengthened; that the cost for the product which the consumer receives be reasonable; that the livelihood of existing movie distribution and exhibition systems not be unduly harmed; that a reasonable Canadian content quota for pay television be established; and that the greatest possible share of pay television revenues be channelled back into the Canadian program production industry to promote an improvement in the quality of Canadian programming.

ENDNOTES

1. Stanford Research Institute. "Executive Summary" of Analysis of Consumer Demand for Pay Television, May 1975, p.2.

2. P. Kagan, Pay-TV Newsletter, 8 April 1976.

3. CCTA News, Oct. 1974, p.7.

4. Rogers has signed an agreement to purchase Premier Cablevision, subject to CRTC approval.

5. CCTA News, Oct. 1974, p.7.

6. Globe & Mail, 5 June 1975.

7. CATV, 31 May 1976.

8. CRTC Position Paper, pp.3-4.

9. CRTC "Policies Respecting Broadcasting Receiving Undertakings (Cable Television)", 16 December 1975, p.43.

10. H.J. Boyle, address to the Canadian Association of Broadcasters, 26 April 1976, p.26.

11. Mme. Sauve, "Pay Television: Notes for a Speech to the Canadian Cable Television Association", 2 June 1976, pp.6-7.

12. Ibid., pp.7-8.

13. Ibid., p.11.

14. H.J. Boyle, "Premium TV for Canada: A Partnership in Production", address to the CCTA, 2 June 1976, p.5.

15. Ibid., p.5.

16. H. Faulkner, "Notes for an Address to the Canadian Broadcasting League National Conference "Crisis in Canadian Broadcasting", 10 August 1976, p.12.

CHAPTER THREE

ASSESSMENT OF CURRENT PAY-TV MODELS

a) FOUR BASIC APPROACHES TO PAY-TV

We have adopted the approach of analysing pay television models in terms of four basic "ideal types". An ideal type represents a classification, or model designed for analytic purposes. It does not necessarily correspond (although it may) to empirical reality (in this case actual proposals), but represents an attempt to differentiate as fully as possible alternative approaches. An ideal type, then, represents an "extreme" in terms of certain dimensions -- in our case, the dimensions of ownership and distribution structure. It goes without saying that many combinations or compromises incorporating the features of two or more ideal types would in fact be possible.

We have chosen four ideal types to represent the range of possible models. Where relevant, current proposals have been cited as examples of the ideal types. The first ideal type considered is a predominantly privately-owned and operated cable-delivered pay television network. Current proposals which exemplify this approach are those offered by the CCTA (CRTC Public Hearing, June 1975), Video Program Services Inc. (CRTC Public Hearing, June 1975), Advertel Productions Ltd. (CRTC Public Hearing, June 1975), the PTN model proposed by Rogers Cable, Premier Cablevision and Canadian Cablesystems (CRTC Public Hearing, June 1975, and information obtained up to September 1976), the Maclean-Hunter proposal (CRTC Public Hearing, June 1975), the CITY proposal (information obtained up to September 1976), the CTV proposal (information obtained up to September 1976), and, to a certain extent, the proposal by Bell Canada (CRTC Public Hearing, June 1975).

The central features of each of these proposals are private ownership and delivery of the pay television signal via cable, although the Bell Canada proposal is applicable to over-the-air transmission of pay television signals as well.

Another feature common to each of these proposals is the idea of a pay television network, although the rate and degree of extension of service to the whole country varies.

The second ideal type considered is a predominantly privately-owned and operated STV system. This model obviously differs most significantly from the first in the method of distribution of the signal. It also implies, however, ownership by private groups different from those who would be interested in the first model. Current proposals which to a certain extent are compatible with this ideal type are the 1975 CITY proposal, the model suggested by Maclean-Hunter, the proposal by CTV, and the proposal by Bell Canada.

Common to these proposals are the concepts of private ownership and the use of existing UHF broadcasting facilities for distribution of the pay television signal. Both the Bell Canada proposal and the proposal by CTV envision a network arrangement, while the 1975 CITY proposal puts most of its emphasis on its own potential contributions.

The third ideal type is a public enterprise (as an adjunct to public broadcasting or as a separate public system or systems) which would distribute the pay television signal either by renting cable facilities or over-the-air, or both. The proposal delivered by the Council of Canadian Filmmakers to the CRTC Public Hearing in June 1975 best typifies this approach. It emphasizes the structure of ownership and is less concerned with the method of distributing the signal. The criterion for the method of signal distribution is the efficiency of either method in a given area.

The fourth ideal type is a consortium which involves both public and private ownership and which uses either cable or over-the-air technology to distribute the pay signal, depending on which approach is most feasible in a given area. The Minister of Communications discussed this approach in her address to the Canadian Cable Television Association, 2 June 1976. As in the third approach, the method of distribution of the signal is determined by efficiency not ownership.

b) ANALYSIS OF BASIC TYPES ACCORDING TO A RANGE OF ISSUES

We have attempted to analyse each of the models exemplifying the four ideal types according to a range of issues and criteria. The first group of questions concerns the type of service to be offered. Will delivery of the pay television signal be over-the-air or via cable? Will the system be operated on a pay-per-program or a pay-per-channel basis? What protection is offered against bootlegging of pay television signals?

The second group of questions concerns the ownership structure as it applies to the three activities of a pay system: program production, program packaging, and signal distribution. Some proposals separate these three functions; others suggest models in which the pay operator will control more than one aspect. Included in this section is the question of ownership of the descrambling units necessary for the reception of the pay-TV signal.

The third group of questions concerns the criteria stated in the second item in our terms of reference: "Consideration of the problems arising from and possible solutions to the need for a pay television service which will be national in character, reflecting the bicultural nature of Canada and programming in the two official languages." These considerations have been broken down into the following questions. Does the service meet the criterion of nation wide delivery? Does it meet the criterion of being a bilingual and bicultural service? Does the service promote Canadian social and cultural values?

The fourth group of questions examines the attitude toward programming inherent in possible approaches to pay television. Does the approach offer a guarantee that a reasonable percentage and variety of Canadian programming will be offered? Will the programming serve minority and regional interests?

The fifth group of issues concerns the financial impact of pay television. Does the approach necessitate a substantial flow of revenue to program producers or packagers outside Canada? Does it offer a proviso for allocation of substantial revenues to the Canadian program production industry? Does the approach include answers to the problems of start-up and operating capital?

The sixth group of questions concerns the impact of the introduction of various forms of pay television on the existing broadcasting system. The issues considered are audience fragmentation and whether compensations for this fragmentation can be built into the various approaches.

Each of the current major proposals has been analysed with regard to these issues. Comparisons have been made within each group of questions, but no attempt has been made to evaluate specific proposals.

c) TYPE OF SERVICE/DISTRIBUTION

The first group of questions concerns the type of service which is proposed in each model. Proposals for cable distribution of the pay signal include models suggested by CCTA, Video Program Services, Advertel, PTN, Maclean-Hunter, CTV, CITY, the Council of Canadian Filmmakers, and Bell Canada. CTV, CITY, Maclean-Hunter, the Council of Canadian Filmmakers, and, to a certain extent, Bell Canada, also indicate that some over-the-air service might be a component of their systems. A proposal for over-the-air service has also come from the CAB.

CCTA, CITY, Maclean-Hunter, PTN, and CTV all propose a pay-per-channel model. Video Program Services and Advertel recommend a model that combines a pay-per-channel and pay-per-program system, and Bell Canada's model is predominantly a pay-per-program system, although it could be combined with a basic monthly charge. The CAB and the Council of Canadian Filmmakers both recommend that a pay-per-program system be adopted.

The Bell Canada proposal addresses specifically the problem of security, but mentions only that its system is designed to guard against fraudulent use. CCTA mentions that the cable operators have already faced the question of theft of service.

d) OWNERSHIP OF OPERATIONS

The second group of questions concerns the ownership of the various levels of activity required in the operation of a pay television network. The functions are program producing, program packaging, and signal distribution. CCTA,[1] Video Program Services, Advertel, CITY, Maclean-Hunter, the Council of Canadian Filmmakers, PTN, and CTV all propose models in which the program packaging function is separate from the distribution function. In the CAB model, the broadcasters who would act as program packagers would also own the signal distribution facilities. The question is not considered in the model suggested by Bell Canada.

Similarly, the Bell proposal does not address the question of whether the program production function will be separate from the program packaging function. These functions would generally be separate in the models proposed by CCTA, Maclean-Hunter, the Council of Canadian Filmmakers, and PTN. However, almost all of these proposals leave room for some production by the program packager.[2] Video Program Services indicates that while it would commission some programs, it would also be willing to co-produce others, using local production facilities. The proposal by Advertel is unclear, but it seemingly would produce some programs. The proposals by CITY, CAB, and CTV all suggest that the production facility should not be entirely separate from the program packaging facility.

e) HARDWARE OWNERSHIP

The third aspect is the ownership of the mechanism which would decode the scrambled pay television signal. CCTA, Video Program Services,[3] Advertel, CITY, Maclean-Hunter, the Council of Canadian Filmmakers, and PTN propose that the program packagers should not own the descramblers. The CAB proposes that the broadcasters who operate the program production and packaging facilities should also own the descramblers. Under Bell Canada's proposal, it would own the descramblers and pass the necessary billing information to the network operator. Because of the difficulty in obtaining information concerning the CTV proposal, it is unclear which element of the system will own the descramblers or filter units. However, if our information is correct and CTV proposes to lease transmission facilities from the cable operators, it seems likely that the latter would own the descramblers.

f) SOCIO-CULTURAL CONSIDERATIONS

Specifically addressed here are the questions of a nation-wide and bilingual service, the percentage of revenues to be devoted to Canadian programming, the variety of Canadian programming which is proposed, the degree of regional participation in program production, and the extent to which minority interests will be served.[4] It should be noted that while many of the proposals spoke of the need to promote Canadian social and cultural values, none defined that phrase or offered specific proposals designed to accomplish those goals.[5]

Most of the available proposals suggest that pay television should be developed as a national network, established first in the major urban centres and gradually extending service to the rural areas. Since most of the current proposals are from groups and companies located in English-Canada, few address the problem of establishing a French-language service beyond acknowledging the fact that there should be one. The Video Program Services proposal, however, examines ways in which an English and French service could complement one another and share programming costs.

While the question of the percentage of pay revenues which should be devoted to Canadian program production is answered in virtually every proposal, only two address the question of the actual percentage of Canadian programming in the total programming schedule.[6] In a projection of a sample month's programming, Video Program Services suggested that it would be possible to operate a service where five out of nine major features would be Canadian. Of the ninety-nine showings of these nine features, sixty-one would be Canadian, thirty-six American, and two would be British. Maclean-Hunter suggested that initially Canadian programming should comprise approximately ten percent of the total programming schedule. At the beginning, Canadian programming would receive ten percent of the total revenues for the pay system. After an initial phase, where the level would remain constant, the amount of Canadian content (and presumably revenues devoted to Canadian content) would rise at the rate of five percent per year until it reached fifty percent.

The types of Canadian programming proposed in each model differ very little. Most proposals emphasize feature films and theatre or concert productions. CCTA, Advertel, Maclean-Hunter, and the Council of Canadian Filmmakers do not raise the issue of regional production. Video Program Services proposes a system where the pay television network would co-produce programs with groups throughout the country and outside the country using local production facilities. By implication, CITY suggests that UHF broadcasters other than itself would also produce programming. The PTN proposal suggests that cable operators could make room for some local programming to be provided to the particular audience which the operator serves. CTV suggests that some programming would be produced by its various member stations.

Programming for minority audiences is not an issue raised in many of the proposals. In referring to its present service to Toronto's various ethnic groups, CITY implies that it could extent that service in a pay system. PTN envisions that additional services to specialized audiences could be offered at some future date.

g) FINANCIAL IMPACT

The available proposals have been analysed with regard to the percentages of their revenues to be devoted to Canadian and foreign programming. The question of start-up and operating capital has also been raised. Detailed calculations of the potential financial impact on existing broadcast services have been included in Appendix "C". The subject is also discussed briefly in Chapter Five. Solutions offered in the various proposals are outlined below.

(i) Canadian Programming Costs

CCTA, Video Program Services, Advertel, PTN, and CTV propose that fifteen percent of the gross revenues should be devoted to Canadian programming. CCTA has projected 300,000 pay subscribers yielding a total revenue of $32,400,000. Of this amount, Canadian program producers would receive collectively $4,860,000. Video Program Services uses the same figures. Although PTN also projects 300,000 subscribers, its total annual revenue figures seem to be lower, with a corresponding reduction in the amount allocated to Canadian production (approximately $4 million after four to five years). Advertel estimates approximately 356,250 subscribers, each of who would pay $72 per year (on a per-program basis). Under this proposal, $3,850,000 would be devoted to Canadian program production. CTV projects 700,000 subscribers yielding an annual revenue of $67,200,000. Fifteen percent, $10,080,000, would be channelled into Canadian programming. In its proposal, Maclean-Hunter suggests that ten percent of gross revenues, averaged over the first five years of pay service operation, should be devoted to Canadian programming.

(ii) Operating Costs

CCTA suggests that since the cable operators already have in place much of the necessary equipment for the distribution of signals, their start-up costs would be minimal. However, the hardware for the scrambling and descrambling of the special pay signal would have to be purchased, and some "up front" money for the production of Canadian programs, and capital for promotion of the new service would be necessary.

Video Program Services recommends that any group which is licensed to provide a pay service should have enough capital to cover three months programming costs in advance, (including the costs of co-production where necessary), to purchase network control equipment, pay for promotion of the service and cover any losses attendant to setting up the distribution pattern.

PTN estimates that $15,000,000 will be needed for the initial investment in hardware to serve 300,000 subscribers. Capital will also be necessary to expand the marketing and delivery system. In addition to these hardware costs, PTN also acknowledges that some up-front money will be needed for Canadian programming.

(iii) Impact of Audience Fragmentation

Most proposals acknowledge that some degree of audience fragmentation for the existing broadcasting services will result from the introduction of a pay television system. However, they differ in their estimations of the degree of this fragmentation and the solutions to it. CCTA projects a two percent loss of broadcasting viewer hours, to be balanced by the creation of a strong Canadian program production industry which broadcasters will be able to draw on and which will help them attract audiences.

Video Program Services suggests that repeated showings of the feature events will "minimize the conflicts for viewer interest and time as between home fee television and commercial television."[7]

Advertel feels that its pay-per-program system could be structured to eliminate impulse viewing through the use of a repeated showing format in a limited number of hours per day. It also suggests that some viewers who do not presently watch commercial television will be attracted to pay-TV.

The CAB proposal implies that the problem of audience fragmentation would be minimized if the broadcasters were to control pay television. Their concern for the effects of audience fragmentation on broadcasters is, however, substantial enough for them to recommend a five year delay in implementation of pay television service.

The Council of Canadian Filmmakers recommends that pay television be developed slowly using an experimental test-bed system in order to determine fully what its impact will be on the existing broadcasting services and program producers.

Both Maclean-Hunter and PTN imply that the benefits of pay television will outweigh its hazards if sufficient funds are directed to Canadian program producers. PTN also suggests that broadcasters will benefit through their share in the ownership of the pay television system. PTN projects that the loss of advertising revenue to the broadcasters will be about 6-8¢ a week per subscriber. If their projections of 300,000 subscribers are accurate, broadcasters may lose $1,248,000 a year in advertising revenue. They state further that since not all pay television will be in prime time, the potential loss per viewer may be lower.[8]

Many of the proposals also favour the idea that pay television should be governed by anti-siphoning rules in order to protect the existing broadcasting services. These would be designed to protect the broadcasters against the potentially higher prices which pay television operators could pay for programs now carried on "free" television.

ENDNOTES

1. It is important to remember that although the packaging and distribution functions are nominally separate under the CCTA proposal, the pay network itself would be at least 51% owned by the cable operators.

2. For example, CCTA uses the phrase, "The PTNO should be encouraged not to duplicate unnecessarily, program production facilities." (CCTA submission to CRTC, 16 May 1975, p.39). Maclean-Hunter states that the network operator "would primarily be a packager of programs, not a producer." (Maclean-Hunter submission to the CRTC, 14 May 1975, p.5., emphasis added.) Other proposals use similar language.

3. The proposal by Video Program Services is somewhat ambiguous in this regard. On page 4 of their brief to the CRTC, 6 June, 1975, the group states: "The state of Canadian communications creativity and technology has so advanced that it is feasible to develop the medium with network operators concentrating on providing the necessary programming while others, as a profitable extension of their primary business function, concentrate on provision of the integral parts of a nationwide distribution grid." However, in their summary opinion of the financial viability of pay television, on page 20 of the brief, approximately 23% of gross revenues are allocated to "in-home equipment, billing, metering". This amount is in addition to approximately 11.5% allocated to CATV distribution and 11.5% allocated to long haul distribution.

4. Bell's proposal is not considered in this and following groups of questions, since it deals primarily with the technology of pay television.

5. Our assumption here is that diversion of revenues to Canadian program production does not necessarily accomplish the goal of promoting Canadian social and cultural values.

6. See Appendix "E" for an analysis of the varying percentages of revenues needed to achieve given percentages of Canadian content.

7. Brief to the CRTC, 6 June 1975, p.14.

8. For extensive analysis of potential broadcast revenue losses, see Chapter 5, Section b(ii) and Appendix "C".

CHAPTER FOUR

PROMOTING THE PUBLIC INTEREST

The question of ownership of the present Canadian broadcasting system is crucial to the projected development of a pay television system in Canada. Since its creation, the CRTC has reiterated the concern expressed by the BBG about excessive concentration of ownership in the communications media. In a public announcement dated 27 August, 1968, the Commission stated that an "equitable balance of ownership is a form of guarantee for safeguarding community interests and sustaining the presentation of vital news and informational services". In many of its subsequent decisions, the Commission has stated that it believes excessive concentration of ownership to be contrary to the public interest.

At present, both the cable operators and the private broadcasters have proposed that they be licensed to operate pay television systems. We have examined the degree of concentration within both these groups in order to assess the impact of granting to either a license for what is, in effect, a third network.

In 1960, the Board of Broadcast Governors licensed CTV Network. Since that time, the network has grown to include 171 broadcasting transmitting operations (22 originating stations).[2] These operations cover 93% of the English-speaking population of Canada. In 1973, the CRTC approved an application by CTV to alter its corporate organization. Under the new arrangement there are three classes of affiliates to the CTV network: full affiliate, affiliate, and supplementary affiliate. Major shareholders in CTV include Western Broadcast Company Ltd., Selkirk Holdings Ltd., Moffat Broadcasting Ltd., Standard Broadcasting Corporation Ltd., Electrohome of Canada Ltd., G.W. Stirling, Armadale Communications Ltd., CFRB Ltd., CFTO-TV Ltd., and CHUM Ltd.

The seven broadcasting transmitting operations (five originating stations) owned by TVA in Quebec cover 94% of that province. Of the independent undertakings which provide additional "private" service, the majority are located in Ontario and Quebec.

The cable companies most active in promoting the licensing of cable operators for pay television have been Rogers, Premier, Canadian Cablesystems (most notably Metro), and Maclean-Hunter. Rogers is a private company which issues no public shares, and which therefore produces no annual report for the scrutiny of the public. In addition to five radio stations, Rogers owns cable systems in Bramalea-Brampton, Leamington, and Toronto.

Since the beginning of 1976, Rogers Telecommunications, a private holding company, has signed an agreement to purchase Premier Cablevision Ltd. of Vancouver (subject to CRTC approval). Premier owns 100% of Victoria Cablevision Ltd., Canadian Wirevision Ltd. (known as Vancouver Cablevision), Coquitlam Cablevision Ltd., York Cablevision Ltd., Oakville Cablevision Ltd., 90% of Keeble Cable Television Ltd., which in turn controls Borden Cable Television Ltd., 87% of Marlin Communal Aerials Ltd., Waterford Cablevision Ltd. in Ireland, and 75% of Albion Cablevision Ltd. in England. The Company also owns approximately 24% of Delta-Benco Ltd., whose subsidiary Delta-Benco-Cascade Ltd. manufacturers of electronic equipment for cablevision and other industries. Premier also owns 11.5% of Northwest Sports Enterprises Ltd., owners of the Vancouver Canucks, and 7.5% of the shares of Vancouver Professional Soccer Ltd. which operates the Vancouver Whitecaps of the North American Soccer League. A division of Premier, Welsh Communications, is Canada's largest supplier of equipment for the cable television industry. Within Welsh Communications, a separate microwave sales division has been created. It is the exclusive representative in Canada for Theta-Com's AML microwave equipment.

Canadian Cablesystems consists of companies operating in Brantford, Toronto, Burlington, Cornwall, Hamilton, Kitchener, London, Newmarket, and Oshawa. Together with Agra Industries, which operates cable systems in Alberta, Saskatchewan and British Columbia, it signed an agreement with Telesat in 1975 for the exclusive right to distribute television programs via satellite to Canadian cable systems.

Maclean-Hunter Ltd., in addition to its many other involvements, owns radio, television, and cable television operations. Its cable systems are located in Ajax, Collingwood, Guelph, Hamilton, Huntsville, London, Midland, North Bay, Owen Sound, St. Catharines, Thunder Bay, and Toronto. In addition to these Canadian systems, Maclean-Hunter owns Suburban Cablevision in New Jersey, and 50% of Phasecom Inc., a California-based company which manufactures cable TV-related hardware.

As is evident, there is a high degree of concentration of ownership within the cable industry. We have examined the implications of this concentration for the development of a pay television system in Canada. If the cable industry is licensed to provide this service, it seems inevitable that pay television will be owned by a very small group. Pay Television Network Ltd. is a company formed by the Canadian Cable Television Association to promote cable involvement in any pay television system which is licensed.[3] It proposes a pay television operation which would be at least 51% owned by cable operators in a network arrangement. The other 49% could be owned by off-air broadcasters, the public, program producers, and the Government.

According to statements made by Philip Lind, Chairman of the Board of CCTA and one of the vice-presidents of Rogers Cable, Colin Watson, President of Metro Cable, and Michael Hind-Smith, president of CCTA, in a meeting with two of the researchers involved in preparing this report, the network itself would acquire programs, either by purchase or commission, which it would then distribute to the cable operators who would themselves market and exhibit the product. This network would receive 5% of the gross revenue to cover its operating expenses, exclusive of program costs.

Fifty-five percent of the gross revenues of such a pay television operation would be paid to the cable operators to cover the costs of exhibition, hardware, and marketing. This arrangement would appear to be based on a percentage of the revenues rather than a fixed fee for services. Forty percent of the revenues would go to cover programming costs. In this model, 100% of the gross revenues have been allocated to operation of the service. Fifty-five percent goes directly to the cable operators. There seems to be little or no incentive for other groups to become involved in the ownership of the system.

In the summer of 1976, CTV proposed a model for a pay television system that would be 60% owned by the 14 full members of the CTV network. It was suggested in the announcement of the proposal that a cable channel might be used for the distribution of the signal. In this model, revenues would apparently be distributed to the pay television network (which would be separate from the CTV network), cable operators (for use of the cable channel), and to program producers (both Canadian and foreign).

The possibility that Canadian pay television operators may purchase programming from American program packagers necessitates an examination of concentration of ownership within related industries in the United States. As stated in Chapter Two, pay television in the United States has grown to the point where a few semi-monopolistic program packagers supply programming to the majority of pay television systems across the United States. HBO, a subsidiary of Time-Life, is the largest of these. Optical Systems of California is another large supplier. In 1972, the president and vice-president of Premier Cablevision announced that an agreement had been reached with Optical to form a Canadian company to provide optional cable services to cable systems in Canada.

Network One in Toronto purchases its programming from TeleMation which has recently been purchased by HBO. Rogers is indirectly linked with HBO through its purchase of 80% of TransWorld Communications. The other 20% is owned by Computer Television, a subsidiary of Time-Life.

It is impossible to deny that large-scale distribution of programs is necessary to reduce costs. However, the links between Canadian firms and American program packagers must be examined before any Canadian group is licensed to provide a pay television service. Many proposals for Canadian pay television seem to suggest that 25% of gross revenues will be directed to the purchase of foreign programming. Most of this programming will inevitably be American.

It is reasonable to assume that if a high percentage of the programming content of a pay television service is permitted to be American, the operators of the pay service will rely substantially on American program packagers. The concentration of ownership within the American system suggests that a considerable amount of revenue from a Canadian operation will find its way into the hand of a very small group within the United States. In light of recent Canadian experience with passage of Bill C-58, we would suggest that the implications of increased Canadian dependence on American media suppliers (particularly HBO/TeleMation) should be examined with care.

There are, however, several alternatives to the potentially heavy reliance of Canadian operators on American program packages. At the heart of the matter lies the question of Canadian content. What percentage of the programs shown on pay television is going to be Canadian? Obviously, if a pay television operation is required by regulation to devote a large percentage of its revenues to Canadian programming, reliance on American program suppliers could be reduced. In Appendix "E", a table is provided which analyses the percentage of programming revenues needed to produce various percentages of Canadian content.

Even if it is concluded that large amounts of foreign programming are necessary in order to make pay television a commercially viable proposition, limitations could be placed on the amount of American (as opposed to other foreign-source) programming the operator is permitted to carry. While this approach would not solve the problem of Canadian content, it could reduce reliance on American program packagers.

A third approach might be the regulation of the programming mix on pay television. The American packages depend largely on movies to produce revenues. Other types of programming are included, but by far the largest proportion of program time is devoted to movies. See Appendix "F" for a detailed analysis of three months of HBO programming. If a Canadian pay service were required to carry a wider variety of programming, American program packages would be less useful.

The above approaches assume that pay television will operate on a pay-per-channel basis. A fourth solution to the problem of reliance on American packagers could be a pay-per-program system. While a pay-per-program system would not automatically exclude foreign programs, it reduces somewhat the need to fill a given number of program hours each week. If a subscriber pays only for the programs he watches, there is less expectation that forty to fifty hours a week of programming will be provided.

It is possible to operate a pay-per-channel system with a reduced number of events. However, the projected fee per month of $8 would have to be reduced. The projections of expanded revenues which could be directed into Canada production would therefore have to be revised.

In Chapter One we stated our considered opinion that the public interest requires: that existing broadcasting services not be damaged by the introduction of pay television; that services which are now "free" not be siphoned off by pay television; that public-sector broadcasting (CBC/Radio-Canada) and public interest broadcasting be strengthened;that the cost for the product which the consumer receives be reasonable; that the livelihood of existing movie distribution and exhibition systems not be unduly harmed; that a reasonable Canadian content quota for pay television be established; and that maximum profits from pay television be channelled back into the Canadian program production industry to ensure an improvement in the quality of Canadian programming.

There are two approaches to ensuring that the public interest is protected. The first we have defined as "negative protective". It involves the passing of legislation to ensure that certain principles are safeguarded. It can involve a certain amount of "closing the barn door after the horse has been stolen", since the need for specific legislation is often not perceived until certain principles have been violated. The second approach to ensuring that the public interest is protected involves active promotion of the public interest. An example of this approach in Canada was the setting up of the CBC.

It is our opinion that the establishment of pay television in Canada must conform to the second approach. Rather than attempting through legislation to place bandaids on a system which has been haphazardly conceived, the structure of pay television must be designed initially to protect and strengthen the public interest. We have examined various possible structures of pay television to determine what methods would be required to safeguard the public interest under each model.

The first structure we have examined is a predominantly private system. In a private system the public interest could be directly promoted through licensing and regulatory provisions and Canadian content provisions. It might be indirectly promoted through any private decisions by the owners of the system to purchase a certain percentage of new Canadian programming. The private interest would be heavily dominant and the public interest would be minimal.

The second structure is a private system which, as a condition of its license, channels funds into the Canadian program production industry either through a media development trust fund for both the public and private sectors of program production or through a media development corporation exclusively for the public sector, funded through a tax on pay television revenues. This structure contains a marginally greater element of protection of the public interest than the first structure outlined above.

The third structure is a public pay television network, with a high percentage of revenues devoted to a media development corporation for the public sector. While this structure still has negative features requiring regulation, it does seem better adapted to the development of a diversified dedicated-channel system. A greater percentage of the revenues could be devoted to maintenance of the Canadian program production industry and to strengthening the "free" networks.

The fourth structure would be a system which is both publicly- and privately-owned (public majority). The delivery system would be publicly-owned at the national level, but would plug into privately-owned systems at the local level. Private programming groups would receive access to programming time, although the obligation to provide programming would not be removed from the public sector. A proportion of the revenues would be channelled into a media development fund, for expansion of the Canadian production industry.

ENDNOTES

1. CRTC Decision 68-39, 27 August 1968.
2. CRTC Annual Report, 1975-1976, Tables 8 & 13, pp.30,33.
3. The major participants in this endeavour are Rogers, Premier, and Canadian Cablesystems (notably Metro).

CHAPTER 5

PAY TELEVISION AS A REVENUE BASE FOR DEVELOPMENT OF CANADIAN PRODUCTION

a) INTRODUCTION

The most frequently mentioned benefit to the Canadian public of the development of a pay television system (other than the availability of more programming for viewers) is the degree to which this new service can generate funds which would not otherwise be available for Canadian programming production. This "availability of funds" is the leimotif of many briefs and speeches made by industry groups seeking to establish pay television networks. Colin Watson of Metro Cable expressed this viewpoint in a recent edition of Cinema Canada:

> The Canadian Cable industry is excited about participating from the outset in a venture that may provide a vital stimulant to the Canadian independent production industry.[1]

The argument is also used by others not directly involved in proposals for new networks. Peter Pearson, a film producer representing the Council of Canadian Filmmakers, spoke of the potential of pay television at a recent conference in Halifax:

> It seems to me that pay-TV has the potential to be the most lucrative delivery system of visual materials yet devised....A successful film, American or otherwise, is very lucky if it returns 20¢ on the box office dollar after the exhibition and box office charges are deducted. But on pay-TV, the same producer with the same film has a potential earning capacity of 50 to 80 cents on the dollar.

Hugh Edmunds, from the University of Windsor, while somewhat more cautious about pay television, cites the advantages of a projected 13.5 million dollars available for Canadian production each year:

> If judiciously applied, this thirteen and a half million dollars would be very useful to the independent program industry, particularly as seed money for feature film production.[2]

Finally, Jeanne Sauvé, Minister of Communications, using projections which have since been widely quoted, put an estimate of the potential revenue available for Canadian production into the perspective of current programming expenditures:

> In actual fact, pay television penetration rates of 35% are probably attainable, resulting in funds for [Canadian] programming of about $13 1/2 million annually. When one considers that the CTV network last year spent only about $13 million on Canadian programs including news, sports series and variety shows, it becomes obvious that pay television revenues could have an enormously positive impact on Canadian program production.[3]

Projections for pay television penetration are highly speculative. It must be pointed out that Canadian experience may not necessarily duplicate that of the United States with respect to pay television penetration rates. The knowledge of Canadian market conditions is somewhat imperfect. Even extrapolations from the 1960's (when cable, as a "new service offering extra signals for a fee", was first introduced) must be regarded as extremely unreliable. Conditions in the 1970's are simply not the same as those a decade ago.

The net increase in funds available for Canadian production -- a <u>quantitative</u> measure of the positive impact on the Canadian program production industry -- will not just be a function of total pay television revenues. It will also depend upon:

(1) Percentage allocated to Canadian production;
(2) Negative impact on broadcast program production;

(3) How the percentage allocated to Canadian production is distributed;

(4) The degree to which percentages for Canadian production are tied to other commitments by the pay-TV network operation.

These criteria will be examined. In addition, the qualitative impact of pay television funds upon the Canadian production industry must also be considered. What sectors of the Canadian program production industry will benefit from these funds? What sectors will not? The availability of funds should not be considered without analysis of the areas to which these funds will be directed.

b) THE REVENUE POTENTIAL OF PAY-TV

(i) Projections for Gross Revenue

Estimates vary concerning the amount of money which would be available if some sort of a "tap" of pay television revenues were to be undertaken. Most of these estimates use the standard of 15% of gross revenue. The figures advanced by the cable industry tend to range in the area of $4 to $5 million per annum, based on the following calculations:

Number of pay subscribers - 300,000
[Projected pay penetration rate - 30%]

Annual pay-TV fee - $96

Canadian production fund - 15%

300,000 x 96 x .15 = $4,320,000

Optimistic versions of these estimates extend as high as $15 million per annum, based either on (1) 100,000 pay subscribers across Canada or (2) a "multiplier effect", in which every dollar made available through pay-TV would in turn generate one, two, or even three dollars of external capital.

On the other hand, Jean McNulty of the Telecommunications Research Group at Simon Fraser University cautioned delegates at a broadcasting conference not to assume that the diversion of 15% would produce more than $5.4 to $7.2 million (based respectively on a $6 and an $8 per month pay-TV fee) for Canadian independent production.

A more definitive means of formulating projections is to make inferences directly from existing data on pay television. There were basically two sources of data available which could provide indications of the penetration rates which might be achieved in Canada.

The most important source of data was that obtained for 131 American cable distribution systems which offered pay television as of January 1, 1976. An analysis of this data revealed that:

1) A very strong negative relationship exists between basic cable penetration and pay cable penetration. Systems with high penetration rates for cable itself tend to achieve lower pay penetration rates;

2) Within the range of fees charged for pay cable in the United States, no definite improvement in penetration was found to be attributable to lower ("discount") rates.

The findings are important because they suggest that pay penetration rates will be lower in Canada than in the United States. While in the United States pay penetration rates averaged 24.1% (25.4% for more established systems), the average penetration rate for cable itself among these systems was 46.5%. The average pay penetration figure as a percentage of homes passed (i.e. pay television penetration as a percentage not of cable subscribers but of all homes within reach of the signal) was in the order of 11 to 12%. In Canada, where penetration rates for basic cable of between 70 and 80% are not atypical (most major communities have penetration rates of over 60%), the assumption that the aggregate American pay penetration average can be used directly to estimate Canadian penetration is not supported.

A model designed to fit data within the American experience and to project these data into the situation of major Canadian cities is contained in Appendix "B". From this modelling, detailed penetration projections were obtained which suggest that pay penetration rates in the order of 10 to 20% may be more reasonable for Canadian pay cable than the 30% figure which has been used. Two sets of projections are provided in Appendix "B". The less optimistic provides for the typical penetration rates for pay television indicated in Table II.

TABLE II: PAY CABLE PENETRATION PROJECTIONS[4]

Centre	Projected Pay Penetration (%)	Projection as a percentage of homes passed
Ottawa	15.12	10.28
Toronto	17.94	12.19
London	12.67	10.51
Vancouver	9.23	7.29
Montreal	32.34	11.96
Trois Rivières	15.93	10.20
Halifax	16.43	9.20

As can be seen by the figures in Table II, the pay cable penetration as a percentage of homes passed tends to be in the order of 10%. To assume that pay television in Canada will achieve total penetration rates (i.e., pay television penetration as a percentage not of cable subscribers but of total homes passed) much greater than those in the United States would be extremely problematic.

Yet the projection of a 30% penetration rate for Toronto and other major anglophone centres in Canada, is in fact based on such an assumption. Thirty percent or more penetration for the region of Toronto, for example, implies an overall penetration rate of 20.4% of homes passed' this number is consistent neither with the projections given in Appendix "B" nor with the reported average "pay subscription to homes passed" ratio in the United States.

Pending evidence to the contrary, it is important to limit assumptions for Canadian pay service to those which can be reasonably drawn from American data rather than assuming that the popularity of pay television will be greater in Canada than in the United States.

Evidence which confirms these findings, although perhaps not highly reliable, is contained in the response to a question on pay television delivered to a random sample of 1,001 adults in Ontario in February 1976. This study was commissioned by the Ministry of Transportation and Communications and undertaken by the Canadian Institute of Public Opinion (the organization which conducts the Gallup public opinion polls in Canada). To the question, "Which of the following types of programming not now available would you be willing to pay to see on television?", a response category of "Don't think I should have to pay" was provided. Over sixty percent (61.4%) of the respondents used this category. (The most popular category [multiple responses were permitted] of preferred programming was movies [22.6%] followed by children's productions [12.2%]). Survey data concerning the intentions of people to behave in a certain matter (in this case, to <u>purchase</u>) tend to be extremely unreliable. We would expect however, that of the two possible areas of measurement/prediction error, it is more likely that people who said they would be willing to pay actually would not, than that those who said they would not be willing to pay would change their minds. An indication of willingness merely implies the individual <u>might</u> subscribe. Those who indicated they felt they should not have to pay would appear to have a high degree of resistance to the idea of pay television in the first place, and are deemed extremely unlikely to subscribe in the short-term future. The effects of advertising and peer pressure over a period of many years might alter the long-range predictions. Of the total population, only 38.6% falls into the category of potential subscribers to whom the service <u>might</u> be marketed.

The total revenues generated by pay television will depend on a number of factors in addition to penetration rates per se. These include especially the number of homes to which pay television would be available. Some of the projections used appear to make assumptions of universal availability of pay television (i.e., all cable subscribers in Canada being able to purchase it). This assumption may, over a period of time following an initial development phase, be reasonable (especially if a satellite transmission system is adopted). On the other hand, without knowledge of the plans of and the economic relationships within the pay television network operation to be licensed, it would be premature to assume universal availability unless extension of service is to be regarded as a regulatory objective (i.e, pay television will not be licensed until it is guaranteed that service can be extended), or unless there is strong evidence to suggest that it would be economically advantageous for a network operator to extend service. At the minimum, it is necessary to investigate the approximate costs as well as delay-times involved in a "universally available" system.

A cursory analysis of estimated system operating costs is contained in Appendix "D". This analysis is not intended to be comprehensive, but rather was undertaken to produce approximate figures. From the standpoint of a pay television network as a 'total system', using reasonably steep (5 year and 3 year) amortization schedules, additional revenue comes close to balancing additional costs for a universal (satellite distribution) system (in comparison to a simple tape-distribution system covering only a few major centres). However, such a system would involve a need for increased initial investment as well as a certain amount of built-in delay since it might take time to construct local facilities (earth stations) if a program is undertaken to build more than five to ten at a time. A more widely distributed system might tend to be least favoured by certain types of pay television network operators, <u>all things being equal</u> (i.e., assuming no regulatory pressure or pressure from competing network applicants). Those applications aiming to minimize costs at the 'network' level to justify the allocation of higher proportions of revenue to local distribution agents (cable operators or "scrambled signal" broadcast undertakings) might tend to opt for a tape as opposed to a live distribution network as tape playback equipment might be capitalized at the 'local distribution' (as opposed to 'network') level.

Appendix "B" documents projected pay television penetration rates across Canada. If all cable systems in Canada with over 1,000 subscribers were to carry pay television, and if both an English and a French network were available, the number of pay subscribers would be between 476.6 thousand and 578.8 thousand (adding English and French figures in Appendix "B"). At $8 per month, this would result in total annual revenues of between $45.75 and $55.56 million. These figures assume 1) system maturity, which might not occur until after a year or more, and 2) availability to all cable systems across Canada with over 1,000 subscribers, which might not occur initially (indeed, under some ownership patterns without regulatory pressure might not occur at all). Fifteen percent of these amounts would be <u>$6.86 million or $8.33 million</u>, depending on whether an optimistic or less optimistic pay penetration projection is used.

It would be more reasonable to assume that, at least for an initial two years, smaller cable television systems (or smaller communities in general if a non-cable distribution system is hypothesized) would not have pay television service. The elimination of cable systems of between 1,000 and 6,000 subscribers from the projections would reduce aggregate revenue figures by about 10%.

More important, over a "build up period", while the total number of subscribers at the end of the period might equal the projected figures, the <u>average</u> figure would be much lower, perhaps half the annual revenue projected for the end of the build up period. The assumption here is that penetration build up, while being reasonably quick, is not instantaneous. Thus, <u>in the first year of operation</u>, it is conceivable that amount of revenue for Canadian production (i.e., 15% of gross revenues) would be in the order of <u>$3,125,000</u>, assuming: 1) availability of pay television to all cable television systems over 6,000 subscribers; 2) an English and a French system; and 3) a total of 464,000 subscribers at the end of the period.

(ii) Loss to Broadcasting Revenues

If the Canadian production industry is regarded as a whole, the impact of pay television should not be considered without regard to the funds it will draw away from broadcast television. It is true that off-air broadcast revenues are not used solely for Canadian production, especially independent production. (Even "in house" productions, however, constitute <u>quantitative</u> contributions to Canadian production. The argument that these may be inferior <u>qualitatively</u> is a separate issue.) Funds not devoted to Canadian production often contribute to Government determined Canadian media priorities: for example, such things as the extension of service throughout Canada. So while broadcast losses cannot necessarily be considered on a one to one basis (one dollar lost to Canadian broadcasters equals one dollar lost to Canadian production), in general, losses to broadcasters must in some manner be weighed against the economic benefits pay television will bring to Canadian production through a "tap" of 15 to 20% of gross revenues.

Projections for the audience impact of a hypothetical new service are contained in Appendix "C". These projections, which tend to be conservative, refer to a "per channel" system and its impact on existing broadcast audiences. Basically, the conclusion drawn from this analysis is that the average pay subscriber will spend between 10% and 25% less time viewing each of the major English-Canadian networks (CTV and CBC). The variations depend on a number of factors and the method of projection.

The total estimated financial impact on CBC and CTV for Toronto, Hamilton and Vancouver as calculated in Appendix "B" is shown in Table III. These calculations use reasonably pessimistic figures for estimated subscriber penetration (meaning the lowest financial impact) from Appendix "B".

TABLE III: FINANCIAL IMPACT PROJECTIONS: TORONTO, HAMILTON, VANCOUVER.[5]

	CBC		CTV	
	Projection #1	Projection #2	Projection #1	Projection #2
Total Pay Subscribers	208,694	208,694	208,694	208,694
No. hours/week lost	313,138	756,192	528,538	239,164
Annual financial impact[i]	$732,743	$1,769,489	$1,236,779	$559,644

(i) Based on 4.5¢ per viewer-hour

The loss figures for Toronto, Hamilton and Vancouver, using low penetration projections, amount to between $1,292,000 and $3,006,268. Using the same penetration projections and an assumed $8 per month cable fee, a 15% fund for Canadian program production would result in $3,005,190 annually.

There would be additional losses to independent broadcasters, but sufficient data were not available for the construction of a reliable model. Similarly, data concerning the impact of additional television services on French-Canadian television (Radio-Canada and TVA) did not enable us to draw definitive conclusions concerning what the actual audience loss values would be. It was noted, however, that the introduction of an English-language service appears to affect viewing patterns among francophones. The impact would probably be lower in the case of pay-TV since francophones would probably be less willing to pay for an English service than to watch one which is available free. However, even a minor impact on the balance of French-English viewing in cities such as Ottawa-Hull and Montreal cannot be discarded due to the political sensitivity of the language question in Canada. This would be especially crucial if a French-language service were not available.

It might be possible for some broadcasters to maintain high "rate cards" even in the face of audience losses (or, in the case of increases in population, declines in the proportion of households viewing). Broadcasters may indeed be, as has been claimed, facing "inelastic demand", implying an infinite capacity to raise effective cost per thousand charges. On the other hand, it would appear to be unreasonable to assume that over the long run broadcasters are not exploiting as far as they possibly can the potential of their stations to maximize advertising revenue.

The loss projections given above and in Table III would increase if penetration rates increased, almost proportionately. Thus for a higher penetration level, while the money available to Canadian production from pay-TV would increase, so also would loss to broadcasters, at about the same ratio as that suggested for a projected 200,000 subscribers.

Part of the advantage, then, of pay television may not be so much in the additional funds it makes available for Canadian production -- fully half or more of these "additional funds" may merely offset losses to other sectors of the Canadian media industry -- but rather in the manner in which funds available will be employed.

(iii) Internal Budgeting as a Consideration Affecting the Net Availability of Funds For Canadian Production

A final set of factors which affects the quantitative benefits accruing to Canadian production from a revenue "tap" is that of control of the spending of the revenue, and the degree to which foreign program sales are handled by the network itself.

One minor problem is that of accounting practices. Under the guise of "administrative costs", costs not directly applicable to the administration of the Canadian production fund, but having more to do with general pay network administration, might be accounted under the fund. Staff and office expenses for commissioning Canadian films could be high if some of these expenditures are actually directed to other functions (e.g., purchase of American programs, etc.). The result would be that the 'network' costs (i.e., those administration costs not including the Canadian program production fund) would appear artifically low. This problem, however, can be solved by reasonably simply regulatory remedies, such as a strict examination of the amount and proportion spent on administration of the fund.

A second, more serious problem might tend to occur if a pay television network assumed responsibility for marketing Canadian productions in the United States. There are, to be sure, certain "bargaining advantages" which might accrue to the pay television network in the sale of Canadian films. The network might be able to sell films which might not otherwise be saleable to U.S. distributors by "bargaining" these sales against purchases which will be made from the same distributors. This very advantage, however, presents a certain danger: Canadian film productions might be "undersold" to American distributors in exchange for a favourable consideration in the purchasing of American products. This sort of reciprocal arrangement can be expected to be pursued under a number of different ownership structures as a strategy to minimize losses resulting from a percentage revenue tape. The discount on the American products (bartered in exchange for a reduction in the sale price of Canadian films in the U.S.) will not end up in the hands of the Canadian production industry but will result in decreased costs to the network. These savings can be passed on, presumably, either to the network itself (in the form of profit), or to other sectors in the pay distribution model (e.g., in some models, this might involve a higher proportion of revenue going to cable television operators). Unlike the previous problem, this particular "cross-subsidy" problem is very difficult to regulate unless either: (1) the Canadian production fund were to be administered by an agency separate from the pay television network; (2) additional profits generated over and above a certain amount were allocated directly to program production; or (3) means in addition to the percentage of revenue were used to evaluate the network's performance in assisting Canadian production.

There are also implications in terms of the type of support which would be given to the Canadian film industry under a "cross-subsidy" arrangement. One would expect that a small number of large-scale productions would be undertaken, many of which might be transplants of American productions into Canadian territory where they could qualify for funding. The higher production cost and the essentially American nature of these productions would ensure their sale to the United States. The impact of such an arrangement on the quality of program production will be discussed below in more detail.

c) THE DISTRIBUTION OF FUNDS

(i) Broad-Gauged Support vs. Concentrated Budgeting

The discussion concerning the impact of pay television on the availability of funds for Canadian program production has listed some of the problems which might be associated with a commitment to internally budget 15% (or more) of gross revenues for Canadian production. The discussion has assumed that network operators would, through either a prior commitment or regulatory action, refrain from providing funds to to production agencies in which they have corporate interests. A network with "in house" capabilities would raise further problems.

In addition to the impact on the total amount of funds available, or the total "effective" amount available, an internally-budgeted system might tend to be biased in favour of certain types of programs. The possibility of the use of the 15% commitment to help reduce other costs -- American program purchase costs and possible administrative costs -- has been mentioned. An internally-budgeted program production fund would also tend to be used, under a cost-minimizing strategy, to support large-scale productions conforming closely to existing American film formats (both thematically and in terms of production values). Distribution would be in the form of concentrated budgeting or the funding of a small number of high-cost productions.

Certainly, this is not without value; one of the difficulties in Canadian film-making appears to have been the lack of consistent support for anything more than "B" grade (in terms of total budget) productions. Concentrated budgeting also cuts administrative costs. But it may deny opportunities for developing Canadian film-makers and production companies to gain experience. It would tend to put the system's benefits only into the hands of established film-makers, many of whom (barring regulatory action) might simply establish production houses to serve as vehicles for the production of films which might otherwise have been made in the United States. The only "Canadian" element in these films would be the shooting location and a small quota of Canadian actors. This is not to be regarded as entirely without benefit to the development of an independent Canadian production industry. But it does have possible negative implications in terms of program diversity and (more important) the potential of media fund revenues to provide what might be described as broad-gauged support to Canadian media production. While some of the "seed money" which would be available from a "broad-guaged" media fund might result in features of only moderate box-office success, lower-budget productions might help enable producers and directors to "learn the trade". (A low-budget video and film production sector might also evolve as an important feature of Canadian production; the assumption that low-budget productions must necessarily be poor in quality may not hold). A complete shut-off of funds to large-scale productions is not being argued for here. Rather, it is being suggested that when one considers support to Canadian production, one must consider support to the various sectors that comprise the production industry, especially those which support developing Canadian film-makers and artists at early stages in their careers. In addition, media production should not be considered without examining the needs of the broadcast sector, especially given the availability of broadcast signals to virtually the entire Canadian population.

(ii) Some Structural Possibilities

Briefly, some possible means of meeting the objectives of broadening the support base for Canadian film-making include:

(1) "Arm's length" provision for film funding

If a pay television network were privately-owned, an "arm's length" provision could help solve some of the problems created by the possibility of "reciprocal deals" as described above. It would involve a regulatory proscription of the sale of distribution rights outside the country by the pay network, and a proscription of the funding of any entity corporately related to the pay television network.

Due to a possible tendency for the network to cut administrative costs, this option might not ensure a "broad-guaged" support of the production industry. It might result instead in a restricted number of beneficiaries receiving the bulk of the support: on the assumption that the network would want the benefit of a 'saleable' production, there would probably be an orientation towards funding established film production houses. This would mean that there would be a reduced likelihood of "developmental" funding.

Finally, there would be a marginal possibility that the pay network would tie funding of a particular production house or group to the sale of the product in the United States, in effect promoting those companies favoured by the U.S. programming source, as part of an arrangement to guarantee lower U.S. program costs to the network.

(2) Trust fund for media development

This would consist of an independent body to administer a percentage of gross revenue from the pay network's operation. Under such an arrangement, the "reciprocal deals" described above are not an issue. This arrangement is more likely to fulfil the objective of broad based support to the film industry because of its structure. The trust fund would be administered by an agency devoted solely to the disbursement of funds on a basis designed to promote the Canadian independent media production industry without being weighted down with other economic interests or objectives.

(3) Canadian programming quota in addition to revenue requirement

Depending on the quota involved, the funding of lower cost productions would be encouraged by the application of a quota for a minimum percentage of Canadian programming time on the network's schedule. Such funding of lower-cost productions, if accompanied by some funding of higher-cost productions, could imply a more balanced support of Canadian production. However, in itself the quota would not solve the problem of "developmental funding" since the network might seek to obtain reasonably popular programming which it could replay often to fulfil quota requirements. Films produced by film-makers in the process of learning how to make films, minority appeal experimental films, and the costs of film training are unlikely to be supported by this means. One possible method of encouraging "developmental" funding would be to make the quota independent of the number of "replays" (i.e, count the quota in terms of a percentage of first showings, not a percentage of total time), but this would defeat many of the purposes of the quota (namely, to ensure that the pay network's schedule is not overly dominated by American productions).

(4) Allocation of network profits directly to media development

This option would imply that cost-cutting strategies employed by the network would not be detrimental to Canadian production. Money saved would tend to be represented as system surplus, and would accrue to Canadian media production. A variant of this option is that of the allocation of a proportion of network profits (e.g., 50% of profits) to Canadian production or, alternatively, all profits after a basic "rate of return" (e.g., 10%) has been achieved.

(5) Direct funding of free TV networks or stations

Direct transfer payments might compensate those viewers who cannot afford or who do not have access to pay-TV. These viewers would otherwise be expected to receive less Canadian programming or poorer service generally than they would have received if pay television were not allowed to develop.

Unfortunately, such funding might not work directly for Canadian production as there is no direct relationship between "compensation" payment and an increased programming commitment on the part of the broadcasters. Whether the funds received are used to augment station dividends to shareholders or managerial salaries and benefits or whether they are used to fund additional programming would be entirely at the discretion of broadcasters.

Unless these funds are to be obtained from the 15% allocation for Canadian production, pay television may only be able to supply such funding on the basis of profits generated at the network level. It would appear unlikely that a profit-making entity could both generate profits for investors and fund "free" television, unless the free television beneficiaries had originally supplied the investment capital for the system.

(6) Funding of programming for use on free television

This is a variant of (5) which would involve the availability of funds to broadcasters over and above that which they would have normally spent for Canadian production. This funding could be either for "in house" or independent production, perhaps with a minimum quota for the latter. Funding might also be made directly to independent production houses for "program development", providing the independent production houses could demonstrate that the proposed programs had a good chance of being accepted by a broadcast network.

d) THE GENERAL AVAILABILITY OF FUNDS AND THE NEEDS OF THE CANADIAN PRODUCTION INDUSTRY

According to a special survey by Statistics Canada in 1973, the Canadian film industry obtained production revenues of $24,561,000 divided among 143 firms. (Production revenues are revenues exclusive of lab and printing fees.) In addition to this amount, eleven firms classified as "video tape production enterprises" had a gross revenue of $16,900,000. Much of this revenue was undoubtedly for institutional and educational film and video tape production, so that the actual money available to private, independent producers (here classified to exclude those production houses owned by broadcast undertakings) for feature film (and other mass media uses) would be less than the above figures.

Another set of gauges which might be used to judge the impact of different amounts of additional funds for the film and video-tape production industry would be that of comparisons with the budgets of two government-run agencies, the National Film Board and the Canadian Film Development Corporation. For the fiscal year 1976-7, the National Film Board has a total budget of $36,763,000 (excluding an additional $4,633,000 "in kind" which represents such things as accommodation provided by the Department of Public Works). The budget for actual film production (including other visuals such as still photography, visual slides and film strips) for the same year is $21,620,000.[6] The budget for "loans, promotion and distribution" (exclusive of administration expenses) for the Canadian Film Development Corporation for the fiscal year 1976-1977 is $4,189,000.[7]

How does the projected input from pay television compare with these amounts of money? Unless an additional commitment for "up front capital" for the Canadian production industry is made by the pay television network(s), a 15% "tap" would produce, at most, amounts equal to about twice the investment and distribution budget of the C.F.D.C., or slightly more than one-third of the production budget of the National Film Board. This would occur only after an initial "start up" period.

Appendix "E" relates the percentage of revenues allotted to Canadian production to the actual amount of Canadian programming which would result. In some sense these figures provide an additional indication of the impact of pay television on Canadian production by asking the question, "Will pay television have sufficient resources to present significant proportions of Canadian content?" Given reasonably liberal assumptions about the ability of pay television to generate additional capital, it seems likely that the dedication of 15% of gross revenue to Canadian production will result in 10 to 15% Canadian content, <u>at most</u>, on the pay television network, unless a "repeat ratio" for Canadian productions is significantly different from that of American productions. In addition, it must be pointed out that unless a "start up fund" is established, it is unlikely that even the lower (10%) figure will be reached within the first few years given the one to two year gap between the initial commissioning of film and the final release of prints.

Pending a thorough investigation of the film industry in Canada and the investment climate in which it operates, a tentative conclusion might be that while pay television in itself will provide assistance to the film industry, it will not provide sufficient financial inputs to Canadian production to solve the financial problems currently being faced.

That pay television in itself may not work a miracle for Canadian production is not sufficient argument for stopping the development of a pay television network. It does, however, suggest the need for a careful examination of the premises under which pay television is to develop.

Pay television might work in conjunction with other mechanisms to bring to the Canadian production industry the sort of financial benefit which would make a significant difference and in some way balance off the economic disadvantages Canadian media cultural production faces in a communications system which uses a large proportion of foreign programming. The concept of a "tap" on pay television revenues raises the larger issue of the role of various sectors in broadcasting or in communication systems in general. The rationale for diverting a proportion of pay television revenues might just as easily be applied to a proportion of cable distribution revenues. A relatively small "tap" on overall cable revenues would produce about the same results as a much larger tap on pay television revenues. A 5% tap on cable revenues would produce, using the total revenue figures of 1974 as a guide, about as much as pay television could be expected to produce in maturity ($6.6 million). More important, such revenue would be available from the point of time at which such a "tap" were implemented (with pay television, revenues from a "tap" would not become significant until the system had achieved a certain degree of penetration, a process which would take a certain amount of time).

The discussion of pay television in Canada, and the possibility of using a "tap" on a communications service to help fund Canadian production, is beneficial in the sense that this discussion opens the way for a reconsideration of the objectives of the total Canadian communications system and the methods employed for achieving these objectives.

The idea of financial payments by cable distribution systems to other sectors of the Canadian broadcasting system to balance off the negative financial impact on broadcasting and the increased economic difficulties created for Canadian producers with each incremental system or service which relies substantially on the importation of American programming or American broadcast signals is not new. A number of Canadian cable systems have, as conditions of licence, a requirement that certain sums of money be paid local broadcasters. The condition of licence attached by the Canadian Radio-Television Commission (now the Canadian Radio-television and Telecommunications Commission) to the licence granted to Sudbury Cable Services Limited in Decision 74-412, 14 November, 1974, is exemplary:

> In its application, the licensee undertook to pay a television revenue stabilization fee to Cambridge Broadcasting Ltd. (CKSO-TV) and J. Conrad Lavigne Ltd. (CKNC-TV). This fee was to be based on a payment to each broadcaster of $0.30 per month, per subscriber, for each subscriber over 10,000. Payment of this fee would commence upon reaching 10,000 subscribers and would decline annually by $0.05 until termination after the sixth full year of payments. It will be a condition of licence that the licensee carry out this undertaking.

While the efficiency of the particular arrangements currently in place might be questioned, the principle exists.

The argument that a "tap" for Canadian production would provide an impossible burden to the cable television industry is less tenable than the argument that such a tap would provide an impossible burden for a newly-developing pay television service. Cable television undertakings in Canada are reasonably well established in most centres, have high penetration rates, and enjoy what might be termed "reasonable rates of return" (with perhaps a bit of a "safety margin" added). Statistics Canada figures for 1973 and 1974 reveal before-tax profits across Canada of about 22% for both years, as shown in Table IV:

TABLE IV: CABLE TELEVISION REVENUES AND PROFITS[8]

	Total Revenue	Profit Before Tax	Profit After Tax
1973	$132,607,000	$29,444,000 (22%)	$16,244,000 (12.3%)
1974[i]	$130,283,364	$28,033,024	$14,041,364

(i) Excludes cable systems with under 1,000 subscribers as this information was not available.

Source: 1973 figures, Statistics Canada Service Bulletin on Communications, Vol. 5, No. 8 (cat. 56-001)

1974 figures, "Cansim" printout, supplied by Statistics Canada (same data base as 1973 figures).

Statistics for 1973 and 1974 are particularly relevant as an indication of the ability of the cable industry to maintain profit margins. It was in these years that heavy capitalization programs for the introduction of "push pull" amplifier technology (required for converter service) occurred. Previous equipment had to be prematurely written off (this is unlikely to occur again), placing a special economic burden on the industry in many centres. The industry appears to have sustained the shock reasonably well. (It is not the intention here to undertake a thorough analysis of the financial situation of the cable television industry. An article by Robert Babe, published in Canadian Public Administration and the proceedings of the Canadian Broadcasting League's "Crisis in Canadian Broadcasting" conference pursue this topic in more detail.

A cable "tap" need not be absorbed directly from profits if it is deemed that the profit levels represent reasonable rates of return for cable enterprises (given the conditions of economic monopoly). Depending on the policy direction adopted, a "tap" could simply be considered by cable companies as a justification for rate increase applications. The cable television industry seems to have been almost uncanny in its success in receiving approvals for rate increase applications before the CRTC over the past few years. Undoubtedly, the CRTC would be prepared to listen sympathetically to arguments for rate increases, given the increased expense such a tap would entail. Nonetheless, even if a 5% tap had been taken directly from revenues without concomitant rate increases, the cable television industry would still have enjoyed a before-tax profit rate of 17% in 1974.

The advantage of a revenue tap on both pay television and cable television in general is that it would provide immediate start-up capital for the film production industry as well as substantially increasing revenues. This might help ensure that Canadian material is available for the pay television network as it becomes operational, rather than one or two years after it commences. The alternative scenario, implied by a percentage fund using only pay television as a base, is the absence of Canadian programming for the first year or more, or the use of Canadian programming which is currently on the "shelf" and which perhaps would not have the "recency" (i.e., first subsequent run or first-run) or the high budget that American productions and the Canadian productions assisted by the fund will have.

A small tap on cable industry revenues would double the expected revenue which could be provided to the Canadian production industry. A model 10% tap would be even more significant in terms of helping to achieve the needs of the Canadian production industry. The establishment of a more comprehensive financial base for Canadian production would ensure that funds would grow as the scale and intensity of communications in Canada grow. Under a re-evaluation of communications structures and systems in Canada the following possibilities might be incorporated into new federal communications legislation:

(1) A more comprehensive tap than just cable television. Examples: business communication systems, computer communications, telephones;

(2) A tap on the import of non-Canadian television and motion picture materials covering the value of the content.

e) SUMMARY

The funding issue for Canadian production is reasonably complex, and should not be regarded as a problem specific to pay television. The introduction of a pay television service, on the other hand, might provide an excellent opportunity for a re-examination of the role of communications systems in Canada in supporting Canadian cultural activity.

It has been suggested that pay television could make available $6 to $8 million annually, although, at most, less than half that amount would accrue in the first year of operation. This figure could be increased slightly if the proposed 15% tap became 20%, although beyond that, the ability of a pay television service to provide additional funds for Canadian production is limited. A cable television tap of 10%, on the other hand, would generate revenues of $13.2 million, and this amount would be availabLe immediately upon implementation of such a "tap". These figures suggest that, <u>if the generation of funds for Canadian production is to be seen as the sole criterion</u>, pay television may be unnecessary. It would, however, if "tapped" either as part of a general cable tap or in itself, provide some additional funds.

The development of pay television might make easier the implementation of a "tap" on cable revenue. Benefits which would accrue to cable operators even if they did not have a share in the network operation and acted simply as common carriers might include:

(1) Commission which paid to cable systems for carriage of pay television signals (hardware maintenance and revenue collection might also be included) over and above the cost of providing these services;

(2) Increases in penetration. There is no evidence to suggest that slight increases in penetration might not be possible. Since additional subscribers generate little in the way of incremental costs (most costs are fixed, with capital equipment already in place except for drop-lines), cable operators are likely to benefit. Even if the non-cable population takes pay television service at 1/2 the rate of regular subscribers, a 70% penetration cable system might expect a penetration increase of 1.5% (meaning roughly a 2% increase in gross revenue). The assumption is an overall ratio of pay subscribers to homes passed of 1:10, but only 1:20 in the case of people not originally having cable;

(3) Increased converter sales and rentals. While converter device rentals have been deemed by the CRTC to be on the "open market", it is probably true that cable companies enjoy a substantial proportion of the business due to (i) their legitimacy to subscribers, (ii) possible lack of consumer awareness of alternatives, (iii) attractive combination discounts cable companies can offer but outside firms cannot (i.e., an offer to install a converter and regular cable service for the price of the latter alone), (iv) the fact that, as owners of manufacturing firms, some cable companies can undercut prices offered by outside

companies. A converter channel will probably be used for pay television unless the "pay television" signal is given "priority" status above that of some signals currently carried on "basic service". Such a regulatory stance might be difficult due to potential public opposition, especially considering the limited availability of pay television.

In conclusion, the availability of revenue for Canadian production may not in itself be an extremely strong argument in favour of the implementation of pay television. External considerations, however, including: (i) an improved ability to implement a total revenue tap for cable revenue; (ii) traditional viewer-choice arguments well elaborated elsewhere, especially in cable industry submissions; (iii) the increased utilization of satellite facilities which might help support Canada's arguments (internationally) for the use of spectrum and orbital space;and (iv) such a network could be used as a base on which a "gateway" system could be built to replace the current ad-hoc importation of American signals with a configuration permitting returns to Canadian production. This may support the case for the following activities which might ultimately lead to the development of a pay television network in Canada:

1) further publicly-run experimentation with technical equipment in a "test bed" situation;
2) testing in consumer response controlled situations ("test beds" of small to moderate size) for purposes of making more accurate projections;
3) a comprehensive evaluation of existing broadcast policy;
4) an examination of possible options not only for pay television but also for mass media communications in general; and
5) further public discussion.

These possibilities will be more fully elaborated later in this report.

ENDNOTES

1. Colin Watson, "The Cable Viewpoint", in Pay-TV (A Special Issue of Cinema Canada), August 1976, p.18.

2. Hugh Edmunds, "The Big Picture", in Pay-TV, August 1976, p.15.

3. Mme. Sauvé, "Pay Television: Notes for a Speech to the Canadian Cable Television Association", 2 June 1976, p.3.

4. See Appendix "B" for explanation of projections.

5. See Appendix "C" for detailed calculations.

6. Source: Main Estimates, 1976-77, pp.24-27.

7. Ibid., pp.24-26.

8. The ratio of net or total profit to total revenue is not always considered an accurate measure of the rate of return enjoyed by a corporation. Another measure for the cable television industry might be to (i) compare net (after-tax) profits to shareholder equity, or (ii) compare net (after-tax) profits to shareholder equity and depreciation. Figures for shareholder equity were not available for 1974, but in the 1973 figures, the ratio of after-tax return to shareholder equity in the cable television industry was 17.2%. (Source: Statistics Canada, Cable Television, no.56-205, 1973.) Comparative figures for after-tax profits to equity ratios in other industries were: (i) all industries, 13.2%; (ii) communication industries, 10.8%; (iii) utilities, 10.5%. (Source: Industrial Corporations Financial Statistics, 3rd Quarter, 1974, No.61-003.) The ratio of after-tax profits plus depreciation to shareholders equity in the same year for cable was 46.2% across Canada, compared with: (i) 20.2% for all industries; (ii) 24.3% for communications industries; (iii) 16.6% for utilities. We do not, however, intend to suggest that this exercise is comprehensive or sufficient, and would invite the reader to undertake comparisons herself or himself.

CHAPTER 6

PAY TELEVISION -- SOME BROADER CONTEXTUAL PERSPECTIVES

In reviewing the debate on pay television, and looking at its essential dynamics, one thing stands out from the mass of detailed argument about technologies, programming, revenues, costs, and specific impacts. This is, that both the advocates of pay television (in whatever form) and its outright opponents, as well as those of us who are trying to find a way to balance "pros" and "cons" have tended, in the last few years, to look at pay television not so much in _intrinsic_ terms, but rather in relation to _extrinsic_ factors and implications. That is, we have here a delivery system whose merits or drawbacks are largely defined in relation to other developments and possibilities in play in the broader areas of entertainment, communications, and social-technical development.

In the main, for example, proponents of pay television in Canada have hardly attempted to argue that a pay system, _per se_, would have intrinsic merit sufficient to balance its possible drawbacks. Rather, they have used such arguments as the alleged benefit to Canadian program production, or the possibility that the problems of federal-provincial jurisdication will increase if the federal government does not act soon. It is difficult to get a direct answer to the question "Why is pay television, _per se_, necessary or desirable for Canada?"

On the other hand, opponents of pay television have often dealt with it in mirror-image terms. They have put forward, as if unalterable for all time, perspectives based on the needs and dynamics of social and technical systems already in existence, as if the argument concerning the potentially significant damage to existing systems and processes were, in and of itself, sufficient to discredit this or any other new approach to into-the-home communications.

Implicitly, then, the emphasis has been on contextual factors: the relation of pay television to other systems and sub-systems of the communications/technology/society interface. In this chapter, we will seek to deal with this in a more explicit fashion. Theoretically, there is merit in applying the approach known variously as "gestalt", "holistic", or "field theory" -- i.e., contextual paradigms -- to the examination of an area for specific policy decisions. Basically, what is recognized is that <u>any given phenomenon requiring a policy decision takes on a considerable degree of definition, both as a phenomenon and in value terms, from the broader configuration of the context or field in which it is located; from the nature of other forces or actors in play at the same time, within the same broader context; and from the state of play that exists, or is emerging, at a given point in time</u>.

"Pay television" is, in one sense, a generalizable technical phenomenon; but from the point of view of effective policy, what we are concerned with are the influences of setting and of location in a particular time-frame of basic developments. For example: pay television in Canada may be quite a different proposition (as regards its nature, supportive base, and impacts) than pay television in the United States; in the setting of time, a pay television system proposed in 1981 or 1986 might be as different from present (1976) proposals as these present proposals are from the experimental "coinbox" efforts of the early 1960's.

In this chapter, then, we will try simply to raise some of the broder contextual issues and perspectives that merit attention. We cannot treat these exhaustively, nor can we suggest answers that should in any way be considered as definitive. But we would strongly reinforce what we take to be the thrust of Madame Sauvé's recent policy statements. Firstly, pay television cannot, and will not, be regarded as an interesting novelty to be decided upon purely in terms of whether market demand can be generated, but rather must be seriously considered in the light of broader issues. Secondly -- and more implicitly -- as broader issues are raised, the answers that may arise in relation to pay television must also be assessed by comparison with other approaches designed to meet the same ends. For example, if we argue that pay television will help pay for Canadian program production, we should also consider how significant this may be and whether there are other approaches that might meet, or help meet, this objective in a more satisfactory fashion.

a) IMAGES OF THE FUTURE AS FUNDAMENTS OF POLICY ANALYSIS[1]

Four alternative approaches to policy development, relevant to the contextual consideration of pay television in Canada, are each predicated on a somewhat different approach to the conceptualization of the future:

(ii) The Traditional or "Ad Hoc" Approach

This approach tends to see change as occurring in terms of discrete phenomena, or clusters of phenomena. This approach is simply a variant of operational policy-making. There is a tendency to minimize the "futures" and contextual aspect of problems. Concern about change is sublimated to the desire, somehow, to get action. Business and a sense of the immediacy of a challenge may overtake foresight, or there may be an explicit or implicit denial that the problem-area dealt with is really a problem, in holistic terms. The problem is perceived at the level of operational detail: what does one have to do to make it "fit" the existing situation? From the perspective of Thomas Kuhn's Structure of Scientific Revolutions we act as if "in-system" changes were occuring, that can be dealt with by assimilation to, and minor adjustment of, the accepted paradigms, rather than considering whether "of-system" changes may be emerging that threaten the very nature of the paradigm and require a shift to a new concept of the reality that confronts us. More baldly, the psychology that is involved may entail not worrying or thinking about contextual challenges, but rather viewing the new phenomena as if "the future...were simply a continuation of the past and the present" -- the way that "the overwhelming majority of individuals in the world" tend to deal with new developments.[2]

(ii) The Extrapolative Approach

This approach tends to see change as reality, but while it concedes that the future situation may differ in considerable detail from the present and the past, and that it has to indeed be considered explicitly, nevertheless tends to view new phenomena as add-ons, the impact of which is limited and is predictable in terms of past behaviour. Limited, in the sense that certain areas of activity are conceded to be affected by these changes. Impact is predictable in linear terms, within relatively narrow pathways, without much feedback to the basic levels of social behaviour or spillover into broad areas of activity and social-technical organization.

Viewed in this way, predictions about the impact of the automobile would have stressed increases in mobility, speed, distance and some aspects of convenience, but might well have missed such aspects as changing urban-rural relationships, developments in urban form, the emergence of suburbia and of the automobile-based shopping centre, and basic attitudinal changes relating to energy and material use, the psychology of power, and social class and status. Radio would have been regarded as an extension from print and from conventional "live" entertainment, television as an extension from radio, cable television largely as TV carried one step further, and pay television as just one additional "add-on" in this progression.

Extrapolative approaches tend to emphasize technologies at the expense of social structures and changing values; tend narrowly to focus on one area of development and change rather than on the interplay among areas of change occurring more or less simultaneously (e.g., television, space satellite, information technology, discontinuities in socio-economic structures, and changes in values); and have tended (e.g., in the work of Herman Kahn) to give the appearance of overstating long-range, allegedly beneficial, developments from technology while minimizing or rationalizing away, "transitional" problems.

Basically, extrapolation works best when the investigator or policy-maker is dealing with "well-structured problems" (closed-system problems, with clearly identified variables which are easy to measure and are subject to well-defined criteria for evaluation for which a substantial consensus exists); these, however, are likely at best to be sub-systemic or partial to larger "ill-structured" problems. In the latter case, the key question is often "What ought to be done?" rather than how something might occur, or might be done.[3] One problem is that we may often treat an "ill-structured" problem-area as if it were a "well-structured" area (e.g., the proclivity to deal with technical and/or social assessments as if what were really required was technological or social forecasting).

(iii) The Systems Ecology Approach[4]

A significant departure from the two above-mentioned approaches is taken when we move to the perspective which views future evolution as change within an ecology of systems and sub-systems. The concern is for the mutual relations among elements of a system, and, in a broader field, of and among systems that make up the totality. We begin to move away from the linearity and "narrow-band" focus of the previous orientations and into a perspective characterized by: (1) greater awareness of open-ended, ill-structured, problem and opportunity areas; (2) multi-channelled evolution (e.g., examination of continua of change factors, ranging from technological innovations to organizational restructuring to shifts in value systems; (3) great emphasis on feed-forward and feed-back linkages (e.g., feed-forward in that a technological innovation may make possible further new innovations of a technical, social-economic or organizational nature that would not have been possible without this particular link in the change; feedback in that the same innovation, in its social context, may reflect back on the values -- for instance -- of the original sponsoring society and/or its capacity to sustain the original system within which the particular innovation or set of innovations developed. To take a very extreme example: the coming of early industrialism, powered by steam, and focusing on mass production of textiles contributed, inter alia, both to the prolonging of slavery in the American south and, ultimately, to its successful -- if bloody -- abolition in the American Civil War).

The systems ecology approach has the advantage of placing problem-areas in the contextual perspective appropriate to their consideration as social-technological problems. Contextualism of this sort is a preparatory step to any kind of meaningful technology assessment and, ultimately, to the definition of a policy field within which strategies can be pursued to relate specific areas of change to agreed-upon normatively-defined objectives. Thus, in the historical evolution of Canadian broadcasting strategy, it was necessary to see broadcasting not merely as a new technology or as a field for potential commercial development but as an important sub-system within a total communications system that was: (1) evolving in ways that could not be fully predicted or limited in advance, but that could be influenced at certain key points (cf. above, open-endedness of ill-structured problems); (2) influenced in its evolution by a wide range of forces, including (but not limited to): the development and potential of a wide range of technologies; the economics of financing broadcasting and (in its commercial form) gaining revenue from market-related operations; evolving public tastes at both the popular and more sophisticated levels; considerations of national policy, regional and ethno-cultural developments, political pressures, relations to foreign developments, etc. (i.e., multi-channelled rather than narrowly channelled involvement in change); and (3) evolving in such a way as to open up new opportunities and create new constraints across a broad front, while at the same time reflecting back on our society and changing some of our original orientations. For example, the spread of communications is something which has both strengthened national social-cultural perceptions and at the same time weakened them insofar as we are more aware of both inter-regional and inter-ethnic differences and of non-Canadian sources of values, opinions and lifestyles.

The systems ecology approach makes us more aware of the need for preliminary definitional strategy: i.e., how widely and how precisely the "field" to be examined shall be defined. What happens when the same topic is defined by various parties in terms of different scopes and fields? For example, is pay television to be defined largely as a question of whether one can justify the addition of a further service for a fee? Is the systemic field that is most relevant the one which maps viewer-demand and is concerned with penetration rates and revenue build-ups? Is our concern for the rest of the communications systems essentially a peripheral and negatively-defined one: i.e., to define whether or not they will be harmed economically, and, via this economic weakening, hampered in their ability to meet system priorities and critera for service to the viewing public? <u>Or</u> is one to start with the broad field-perspective of the communications system as part of national social-cultural development and political-economic viability, conceive the existing broadcasting and cable systems as a sub-set of this broadest communication field that is in turn part of an even larger ecological system, and then ask the key question: "What do we wish and what can we realistically expect to attain from these systems? Can pay television, in any significant fashion, help promote these total system objectives?"

Though the elements are the same (in the main), the differences in the way that we relate these elements to each other, where we start in posing our questions, and how, fundamentally, we put these questions to the evidence available are likely to be productive of rather different answers. One of the maxims of the theory of strategic games is appropriate for us to remember: in any game, there are really two major games that are being played -- the basic game in which the key decision is to decide <u>which</u> game is to be played (bridge or chess? love or war? media as a economic phenomenon or media as a social-cultural phenomenon?), and under which (and whose) rules the game is to be played; secondly, the game of playing out the game that has been decided upon.

While the systems ecology approach has much to offer as the foundation for policy, and while in one form or another it has been much honoured in the rhetoric of public policy, one suspects that it is honoured more in the breach than in the observance, as far as practice is concerned. While it can contribute to a more clear-eyed view of just what is involved in the policy process, the view that in fact is clarified is one that often shows the complexities of a situation and their lack of susceptibility to easy, rapid solutions. There are no magic wands for public policy -- this is the lesson that the systems approach teaches us. Unfortunately, the lesson of that lesson seems also to be retreat into inaction (whereas someone once said that, "the whole point of policy is action, if you aren't concerned with action, you shouldn't consider policy in the first place") or elaborate studies which are then ignored when the "bite the bullet" phase of policymkaing occurs. In short: some sense of a systems ecology for the consideration of a policy problem may be a <u>necessary</u> element of the policy-process, but is not a <u>sufficient</u> descriptor of this process.[5]

(iv) Transformative Perspectives

While the systems ecology approaches allow for consideration of some discontinuities that are the result of the interpenetration of elements evolving at various levels of total systems, the perspective still assumes basic developmental continuities. Transformative perspectives, on the other hand, anticipate that changes can occur that make for basic discontinuities in systems. Thus, the Science Council's study of the computer industry attempted to compare the computer (and, by implication, related information/communications technologies) with earlier historical developments in social technologies that were fundamentally "transformative":

> Historically, the most significant of man's cultural revolutions have come to pass when man's consciousness of his place in the world and his ability to do something about his place in the scheme of things, have advanced together. The harnessing of steam for power, and with it the emergence to power of the modern industrial capitalist and the professional engineer, was not just important only in so far as it magnified man's capacities with regard to material production. Its greater significance was in the realm of man's consciousness of himself and of his relationship to nature. The steam engine powered an intellectual revolution. Western man became preoccupied with growth and change, and his efforts to understand nature were harnessed to newly-awakened aspirations to "master" nature. We are only now beginning to revise the value system that developed during the "Age of Energy": an age to which the harnessing of steam gave an initial impetus.
>
> In the period into which we are entering, the computer and related technologies are likely to perform a similar function in relation to man's aspirations as did ... the steam engine during the first few generations of the period 1750-1950. We confront a <u>transformative technology</u>, a technology which gives impetus to fundamental change in human thought and action. Such technologies are to be distinguished from <u>extrapolative technologies</u>, those technologies which (however significant) represent: (a) extensions from an existing technological base (as the railway engine was from the earlier stationary steam engine) and; (b) relate to already perceived societal functions which are to be carried out in improved and more efficient fashion. The railway engine moved goods and people conveniently over long distances -- but the industrial steam engine helped to create a society with an increased need for such movement. The computer is already beginning to work changes in our society, and to create needs (barely discerned, as of the present time) which will have to be met in new, as yet unforeseen, ways....[6]

Basically, the introduction to the Science Council's study argued that transformative developments in the information-communications field (with emphasis, in that instance, on the computer itself) were ultimately of significance "not only, or even primarily, to our economic and technological concerns," but rather insofar as they had a basic influence on human creativity and development. The study stated that: "Transformative technologies like the computer [and, we may add, the major set of systems encompassed in the twentieth century media/communications/ information revolutions] are important insofar as they enhance our ability to continue the primal human activity of exploring the world around us." What has occurred already is that the successive entry into everyday social-cultural activity of one new communications technology after another, and the combinations and interactions of these technologies, both in specialized applications and in the mass media, have basically transformed the way in which society functions, and even certain aspects of individual behaviour, first in industrial societies and, increasingly, in less-developed countries.

The ultimate stakes, then, in communications policy (of which broadcasting and related elements are important sub-systems, and in relation to which the pay television issue is one further refinement) are very high. These are not merely issues of economic viability and of who gets what, when, and how, but rather of what becomes of a society and what happens to the individuals in it, as their individual and collective perceptions of realities and norms, alternatives and values, unities and discords, evolve in interaction with a socially organized system of mass communications influenced in its development by the interplay of both private motives and public policy choices. To take one small, controversial example: the behaviour of a portion of a crowd at a made-for-television sports event (for could one really conceive of the Canada Cup hockey series prior to the age of mass communications which made each game instantly available on a national, and even international basis?), disseminated into hundreds of thousands of households, commented upon and rehashed in the news and commentary over the succeeding days, becomes one more of the "scratches on our minds" (to use Harold Isaacs' phrase), shaping how Canadians see each other and how they assess the strengths and weaknesses of our national experiment.

This transformative potential, particularly significant in a regionally and culturally diverse country open to dominant influence by the neighboring American society, was recognized right at the start of the broadcasting controversy by those who helped formulate the basic principles of the Canadian broadcasting approach. These impacts, in our opinion, are as significant (or more significant) today as they were almost a half-century ago. Thus, while pay television might be regarded elsewhere as simply an "add-on" to be evaluated mainly according to the economics involved, in our opinion the larger transformative potentials of Canadian communications developments are the necessary context within which the pay television issue must be viewed.

b) THE BASIC ISSUES

The basic question we are concerned about, in the context of the transformative potential of Canadian communications and media, is whether pay television will significantly enhance the capabilities and service of the total Canadian system for into-the-home communication, according to criteria of public interest and convenience, reasonable cost related to overall benefit (in terms of programming, etc.), and promotion of such established considerations as Canadian identity, mutual understanding in a diverse country, and that measure of national unity that is, or may be, consistent with recognition of specific regional and cultural needs. Some of these questions have been dealt with in detail. In the remainder of this chapter, we need to touch on three issues which come close to the centre of the public interest debate on pay television:

(1) will pay television significantly aid in the development of Canadian program production and, specifically, of material that can relate strongly to the evolution of Canadian identities?

(2) will pay television promote or retard development of Canadian communications technology and infrastructure?

(3) will pay television promote or retard public sector and public interest broadcasting in Canada?

A number of points bear, overall, on these questions:

(1) Various forms of "pay-for-service" television (or, more broadly, "media into the home") may ultimately develop (beginning, perhaps, as early as the 1980's, at least in rudimentary form). But some of these systems actually bear little relation to the kind of commercial pay television that is being promoted today, and it would be somewhat disingenuous to suggest that the kinds of systems and services which may emerge in the long-run could provide justification for adopting present proposals, particularly in unmodified form.

(2) Arguments advanced to suggest that pay television is needed as a means of injecting financial and other support for Canadian program production are, indeed, well-taken, but primarily insofar as they delineate a problem, rather than in the kind of solution that they propose. Our studies suggest that pay television itself is not likely, in the near-term, or even after it reaches a first plateau of subscriber build-up, to make much of a dent in the Canadian program-production and program-financing problems. Rather, our analyses tend to point in other directions for solutions, and to suggest the need for much wider approaches for support of Canadian production, including a more significant "tap" on developing communications revenues than has been proposed by those who promise to devote a certain proportion of pay television revenues to Canadian production for pay television.

(3) In general, if pay television is introduced to Canada, and if it is to have any kind of positive impact on Canadian media and communications to a degree that makes a positive decision worthwhile, every effort should be made to connect pay television (at least through some form of financial tie for a sharing of revenues) to existing broadcasting structures. Though difficult to achieve, synergy rather than fractionalization should be aimed for: the strengthening of the Canadian broadcasting system in its

major constituents, rather than the possible strengthening of one existing component at the expense of the weakening of what already exists as regards programming potential.

(4) There is little evidence to suggest that, in any unconstrained form of development, or with loose structure and routine regulation, pay television will do much to help advance either public sector broadcasting or specifically public interest (particularly local and regional) broadcasting in Canada. The conventional models and approaches to pay television are simply not geared to meet these particular objectives; rather, they aim (legitimately, given the premises of the system under which they have developed) at meeting a potential in the commercial marketplace. In the unconstrained model, public broadcasting and public interest broadcasting if they are to be advanced at all, are to be dealt with elsewhere in the total broadcasting system. In Canada, this means precisely those parts of the broadcasting system that might be most adversely dealt with if such phenomena as siphoning, fractionalizing of major markets, and the weakening of the revenue side of broadcasting do in fact occur in relation to the development of the pay system. Basically, the public sector and public interest aspects of broadcasting would have to be dealt with partly by very strong policy interventions in tandem with the pay television decision (perhaps, ultimately, by some reshapings of the conventional broadcasting system), partly by reconsideration of how total revenues of the electronic media are to be distributed, and partly by various approaches to ties and overlaps within the total system.

(5) On the technological side, again, it is not clear that pay television as now proposed would really do much to contribute to the orderly evolution of Canadian mass communications technology, and to its harnessing to systems that improve into-the-home media services. Indeed, there may be some retardation of certain potential developments for reasons which will be discussed below. Once more, what is required are decisions that really bear on

those sectors that may relate to pay television in the long-run, but that are not totally dependent on the kind of pay television systems currently being proposed.

c) PROGRAMMING

A detailed examination of some of the specific issues of programming -- particularly on the financial or market side -- has been provided in an earlier chapter. In general, it would appear that the potential of pay television to make a significant contribution to made-in-Canada program production may have been overstated by advocates of one or another of the rival proposals now being advanced.

The most basic issues associated with Canadian program production capabilities are, indeed, serious and worth examining. The question that confronts us, however, is how much we really want to rely on pay television per se for an answer to these problems. One answer would appear to be "Not very much". Or, to put it somewhat differently, the basic issue of support for Canadian program production needs to be examined from a perspective much broader than the pay television focus. While it is conceivable that the development of pay television will contribute to the development of production in Canada, it cannot be regarded as meeting the needs of this industry and creative sector in the short and medium term.

A number of points may be made in this connection:

(1) It is necessary to assess how much development could reasonably be projected, overall, for the Canadian film and program production industries in the next 5-10 years. What are the overall magnitudes of investment requirements, and what sort of industry might be sustained at each level of mobilization of capital and operating funds? How much of these requirements might be met through the commissioning of production for broadcast television and pay television, as well as "in-theatre" film and miscellaneous material (e.g., instructional)? What are the

impediments to financial development of a Canadian feature film and television programming industry, and what are the constraints on rate of absorption assuming adequate funding were available?

Obviously, these questions go well beyond the resources of our study. But only when we can see projected pay television expenditures on made-in-Canada production in relation to these kinds of figures can we really begin to make some judgments in this regard. It is our understanding that a major study along similar lines is being undertaken for the Canadian feature film industry by the Secretary of State. The pay television situation should be assessed in the light of some of the findings of such a study.

Our own basic data suggest that for 1974 revenues to Canadian film production amounted to $30 million; independent video tape production accounted for an additional $16 million. The highest projection for direct programming budgets for Canadian production to be used on the pay television network (as proposed by Colin Watson and others) ranges up to approximately $15 million once the system has reached a plateau where revenues would be approximately $100 million per year. Our own estimates (see Chapter Five) are that at the plateau (if 15% of pay television revenues were available for Canadian pay television production) the amount to be allocated would be only about $6-8 million. (This would be 12.5% to 16.6% of the $46 million cited above and even less as a percentage if "in-house" production were included.)

(2) Not all "made-in-Canada" production, under pay television auspices or by any other means, will necessarily have a significant relationship to content that relates in any way to Canadian identities. If the mass media in the electronic sphere and film are potent instruments for national exploration and shaping of mythologies, images, and value systems, then it is not necessarily clear why Canadian production <u>per se</u> will contribute uniformly to this objective: certainly, the mix of activities is likely to include made-in-Canada versions of "spaghetti Westerns", Kung-fu epics,

and international thrillers. What can be said in favor of not making such a distinction is that:

(a) Development of production facilities and skills is in itself a good, both directly (employment of artists, technicians, etc.) and indirectly (the bread-and-butter basis for activity offers more of a chance to develop some intrinsically Canadian material; skills are sharpened on the general material, thus improving the general state of the art, etc.).

(b) The question of what is Canadian is something that has to be explored in practice; it cannot really be predetermined.

(c) It would be difficult, in the view of some researchers involved in preparing this report, to lay down real criteria of Canadian thematic content (would a remake of Rose Marie, made in Canada, with Canadian casts and production teams be Canadian? Would Canadians be discouraged from exploring international themes?).

Nevertheless, in development of approaches to Canadian production, whether via pay television or through other means, some consideration needs to be given to the issue of "made-in-Canada" versus "Canadian". The terms and concepts are all too easily telescoped into a single, fuzzy, approach that covers a multitude of possibilities, and not all paths to support of Canadian production will necessarily contribute to the exploration and development of our own thematic mythology.[7]

(3) A particularly disturbing aspect of some possible configurations of the pay television/made-in-Canada production relationship, if we look at the logic of some current proposals, is that strong, almost dependent, ties might be established between Canadian pay television operators and American program packagers and pay television interests, insofar as additional revenue might be

provided by the packager's agreement to take on suitable made-in-Canada production to help feed the growing American systems. Conceivably, another form of dominance over Canadian program development and filmmaking might be established, akin to the hegemony of American-oriented exhibition companies. That is to say, much of what would be produced for Canadian pay television would be influenced or even determined by the attractiveness of the material in the American and other external markets. Again, just how serious a concern this should be, and whether in fact we should be concerned about this may be challenged by some. However, if a purpose of developing Canadian production is to provide some kind of creative opportunity for Canadians to create our own contemporary imagery and shared mythology, then this possibility has to be examined seriously.

(4) Other than pay television, a number of forces may be working in a positive fashion in support of the development of our film industry. A number of investment firms and tax specialists (as evidenced by speakers from Burns Fry Ltd. and Touche Ross at the August 19, 1976 pay television symposium sponsored by the Council of Canadian Filmmakers) suggested that current tax provisions and investment conditions might stimulate considerable development in the Canadian film industry in the next few years. This would be aided by the emergence of pay television, but not necessarily dependent upon it.

The fact that a number of Canadian-made films have attracted international attention in the past few years, have won awards, and have even registered some box-office success suggests that the role of Canadian film in North American and international distribution may be beginning to change. According to Vernon Young's article there is apparently a lacuna in the international film prestige sweepstakes, with formerly leading countries such as France, Italy, Japan and Sweden out of contention. Though Young makes a strong pitch for British film -- particularly "made-for-television" series -- it may be not too far-fetched to believe that Canadian film may some day be in vogue.

More practically, there are steps that can be taken to give added opportunity to Canadian producers. Thus, in a recent speech to the conference on "Crisis in Canadian Broadcasting" (Canadian Broadcasting League, Halifax, 10-12 August 1976), the Secretary of State, Mr. Faulkner, suggested that educational authorities consider rectifying the situation whereby a major share of instructional and in-school film material is procured from the United States. These bread-and-butter productions would help sustain Canadian filmmakers while they develop skills for other, more ambitious, projects, as well as contributing, in some areas, to a more realistic presentation of the social-cultural background to various learned concepts.

(5) Finally, we felt that the <u>existing</u> potentials of communications and media as a support base for Canadian production have not been fully utilized. We need to assess how much more might be done by broadcast television and what the relation of gains and losses would be if pay television became a major production/exhibition vehicle. We need to find ways of tying together certain aspects of Canadian program production potential, whether programming appears on "pay" or on "free" television. This can be done by joint production arrangements, recycling of funds (cf. our conclusions in Chapter Five), or perhaps by other means that we have not begun to think of yet. Moreover, a large area of the communications-into-the-home system, i.e., the cable industry and cable subscribers, does not appear to be making a significant enough contribution to the support of Canadian programming costs. Possibly, this area should be looked into and, again, we will make some recommendations in this regard.

The prospect of a "broader tap" for funding production out of television revenues (or indeed, ultimately, the linkage of broader communications revenues to production, by means of a relatively small bite into each set of transactions on a mass-transaction basis) seems to be one of the more promising areas for achieving, on a firmer basis, what the pay television proposals may begin to achieve.

d) TECHNOLOGIES

The general perspective from which we approach the question of the technological impact of pay television is that of a long-range development whereby, in the laboratories and test facilities now, and in the area of broader market application beginning (perhaps) in the mid-1980's, the broadcasting/cable aspects of communications (largely into-the-home entertainment) will begin, in a social-technological perspective, to converge with other aspects of communications, including both existing and new services. Certainly, these prospects have long been heralded (see, for example, various Department of Communications "Telecommission" studies, e.g., the Report on the Seminar on the Wired City held at the University of Ottawa, June 26-28, 1970).

The various discussions and proposals have sometimes seemed to represent technological utopianism. Certainly, the developmental process, both in terms of hardware and in terms of economics and social adjustment is not, and will not be, easy. But recent developments (particularly with regards to fibre optics technology, its production and its experimental testing in Canada, the U.S., Japan, and elsewhere) suggest that in 1975 and 1976 breakthroughs have been made which will, within the next decade or so, begin to be reflected in the delivery systems for consumer-oriented communications, including the "mass media". Thus, for example, Dr. Elmer Hara, of the Communications Research Centre, Department of Communications, has suggested that optical broadband switched networks have reached or are reaching the stage in their development where they should be taken seriously in consideration of the next stages of the evolution of Canadian into-the-home communications.

It would be redundant for us to attempt, superficially, to discuss technical problems of delivery-system development, when the Department of Communications itself has major research and development facilities and programs in these areas. However, we do feel that a few of the possible connections with pay television proposals should be noted:

(1) Potentially, the new delivery system possibilities raise the prospect of rather different programming arrangements than would be possible or contemplated in any pay television system that might be introduced in the short-run. The kind of systems we are talking about in 1976 would still be very limited in their capacity, and, if operated commercially, would probably have to seek the broadest possible market, more likely on a packaged "pay-per-channel" basis (at least initially) than on a "pay-per-program" basis. Hence, the visions of some Canadian filmmakers (e.g., Peter Pearson in remarks at the "Crisis in Canadian Broadcasting" and Canadian Filmmakers conferences, August 1976) of a system which would allow them to rent time on a system on a per-program basis would seem to be ruled out, technically and economically, in current systems. On the other hand, it is our understanding that some future developments of optical broadband switched networks could allow for this.

    If this is a real possibility, then the initial organizational and ownership patterns could heavily influence whether or not the system evolves in a way that allows a smooth phasing-in of a more open access system (access to channels for exhibition). While these are not the only factors influencing whether or not Mr. Pearson's vision becomes a reality within the next few decades (there would still be serious problems in attracting "up front" investment), nevertheless, the continuing influence of early organizational choices warrants consideration in relation to the potential of the technology of distribution.

(2) The systems that are now being proposed may constitute late-stage efforts to reap further returns from older systems that are arriving at the point of maturity economically (i.e., the systems are not particularly innovative, but they have basically been paid for). There may, however, be some advantages (encouragement of technology and of Canadian capabilities, possibility of linkage with other aspects of communications that would pay part of the system's capital and operational costs, more flexibility, alleged lower unit-delivery costs and lower maintenance costs, programming potentialities) in phasing in forms of partially subscriber-paid special services at a later stage, i.e., early in the application phase of the newer technology. Here again, it would be almost impossible to be definitive, but basic pay television decisions might well require that these issues be worked out.

(3) If there is merit in the introduction of the emerging technologies, it should be considered that the coming into existence of major pay television services using existing technology (particularly existing cable systems) might hinder the mobilization of capital to modernize systems and the shift over to the optical or other "state of the art" approaches.

The effort to establish pay television on the present technological base may, in fact, fail commercially, particularly if penetration rates are as low as we have projected, and if the system has to meet fairly significant public interest critera. This could have a dampening effect on investment later on, in other systems that might be more promising. Or, conversely, a successful use of existing technical delivery systems, the costs of which will have been largely amortized by the early 1980's, may turn out to be a disincentive to offering more flexible services at a later stage when to do so will require additional system development and emplacement expenditures.

(4) For these and other reasons, we believe that consideration of pay television as part of the systemic options available to Canadian communications development should be based on some sort of "test-bed" or medium-scale community experiment (see Chapter Eight), where technological options can be evaluated and a variety of social-economic factors considered prior to making binding commitments, licensing operations in major metropolitan centres, or structuring a definitive national system.

e) PUBLIC SECTOR AND PUBLIC INTEREST

A few concluding comments may be made with regard to the third general issue area, which is dealt with throughout this report. To reiterate: it is hard to see that, <u>intrinsically</u>, current pay television options, within the limits of existing (1976) in-place delivery systems, really make a major contribution to the public interest. Nor would this necessarily be remedied simply by putting pay television under some form of public authority. If the system is unnecessary, or if its contribution is minimal, then it is just as unnecessary and just as minimal in its contribution if placed under a public authority. On the other hand, the participation of a public agency in a meaningful way could conceivably allow more scope for the injection of public interest criteria into pay television.

The real arguments for pay television at this point (to judge by the debate) are <u>extrinsic</u> (alleged benefit to other parts of Canadian media, e.g., production) and evolutionary (a possible first stage in the development of new communications approaches). But these are only <u>potentially</u> valid points -- an unconstrained approach, on an <u>ad hoc</u> or "added-on" basis, is not likely to do much to help develop this potential in a positive fashion. Accordingly, we believe: that a fair amount of positive direction, probably in the form of legislated authority, needs to be given to CRTC and to pay television developers; that it would be better if a system were set up with a structure that provides for at least some revenue links to the "free" TV system's production programs; and that it is not possible simply to rely on the internatal decision-making of pay television to pursue public interest objectives. (See Appendix "E".)

The other area of concern is for local broadcasting. While national and regional responsibilities bulk large in the consideration of broadcasting and communications policy, local stations are often at the firing line, so to speak, of public interest issues and responsibilities. These may very well be weakened in their overall position (and hence in their ability to respond to local public interest needs) by pay television penetration. Here again, fund recycling and other forms of interface between pay television (if it comes) and conventional broadcasting is desirable, but again special arrangements need to be made for local development of broadcasting, community cable channels, citizen interest groups engaging in production, and so forth. These arrangements are indicated briefly in Chapter Eight.

CONCLUSION

It is clear, from the Minister of Communications' remarks to the Canadian Cable Television Association's convention in June 1976, that there is an implicit requirement that pay television be considered in the broadest possible context. We believe that it is necessary to reinforce this point, because much of the debate seems to have been rather sectoralized and limited. Basically, a much more fundamental assessment of both pay television and broader broadcasting/communications issues is required, particularly as we enter into a period of new technological options and more complex social and economic requirements. Accordingly, in our next chapter, we recommend processes for consideration and, if results are favourable, introduction of a pay television system(s) in Canada that would allow for a phased process of experimentation, development, and possible full-scale implementation. Given the significance of the issue, every measure of "due care" in these key decisions would seem to be fully warranted.

ENDNOTES

1. This is based on various recent analyses bearing on policy research and future studies: e.g., the somewhat similar schema put forward by Professor James Dator of Ontario Educational Communications Authority, in "Alternative Futures and the Role of the Media" (Toronto, 1975), p.10; the differentiation between "extrapolative" and "transformative" technologies in "Strategies of Development for the Canadian Computer Industry" (Science Council Report No. 21, September, 1973), pp.12-14; and the differentiation of different styles of future studies in Saul N. Silverman, "Coping with a Changing Future: Some Introductory Notes," Industrialization Forum, Vol. 6 (1975), No. 5, pp.3-12.

2. Cf. Dator, op. cit., p.10.

3. Janice J. Tait (Chief, Futures Research, Transporation Development Agency, Montreal), "Some Ways of Thinking About the Future," Industrialization Forum, Vol. 6 (1975), No. 5, pp.13-26, especially pp. 14-17.

4. The use of the term "ecology" may be confusing. We use it here in its more general (but epistemologically more appropriate) sense, as emphasizing complex and mutually interdependent relationships within a system. Particular approaches within this family may in fact emphasize ecology in the bio-social sense, i.e., in terms of the natural environment;indeed, the broader orientation of the systems ecology approach lends itself to this in ways that the "traditional" and "extrapolative" approaches tend, by definition, to preclude. But systems ecology does not necessarily have to be substantively concerned with the natural environment.

5. The literature of systems ecologies is too extensive, and is becoming too well-known, to warrant comment in any degree. The contents of this chapter reflect the influence of Karl W. Deutsch, Stafford Beer, and a variety of sources ranging from the early anthology Towards a Unified Theory of Human Behaviour (material from the 1951-1953 symposia of the Society for the Study of General Systems, ed. Roy R. Grinker, 1956), and the more allusive, psycho-anthropological and sometimes almost mystical work of Gregory Bateson, Steps to an Ecology of Mind (1972).

6. Dator, op. cit., pp.13-14.

7. At this point, some comments on international film made recently by the U.S. critic, Vernon Young (author of On Film and of a study of Ingmar Bergman and the development of film in Sweden, as well as frequent writer on film for the Hudson Review) are worth noting:

7. (Cont'd)

...contrary to pessimistic forecasts, there is no overwhelming evidence that cinema, internationally, is in danger of becoming a totally standardized product, slavishly deriving its methods and subject matter from a common market at the lowest available denominator.

Of course, there's always a level where that description fits, yet today, as never before, there is an opposition movement, unorganized but visible...First of all, films are being made in countries where once there were none, or none worth trying to export. Because such countries cannot compete at the popular entertainment level, they must make films which impress by virtue of their authenticity alone. Secondly, the dire condition of the world has impelled many movie-makers to settle for nothing less than bare candor in their interpretation of the human lot...Thirdly, and which cannot be overestimated, even if it be qualified: the omnipresence of television in the world has created an insatiable demand for material....

The result...has been an enterprising diversity of subject matter and a fascinating incursion of previously unfamiliar configurations. The great art historian, Elie Faure, once said that it was our differences that united us, since we approached each other in order to study the differences. Admittedly, we are not always charmed by the ways in which others differ from ourselves; yet it is certain that by our curiosity we are made cognizant of one another. Needless to add, we trust that if moves are the source of our acquaintanceship, we are dependent on film-shapers who are not unduly satisfying the tenor of their histories.

See Vernon Young, "World on Film," reprinted in Dialogue (United States Information Agency), Vol. 8 (1975), No. 3/4, pp.59-60.

CHAPTER 7

PROCESSES FOR DECISION AND IMPLEMENTATION

Issues having to do with the policy process, in addition to the questions concerning the content of policy and the models for alternative approaches to pay television, need at least to be identified and outlined. In some respects, the process issues may be as significant as the issues that arise with regard to the content of policy. Questions of process -- how decisions were to be made and implemented, who should be consulted, how the consulation process could be made effective, and what kind of time-span and definition of scope of inquiry were needed to create effective policy in the pay television area -- recurred in the course of our investigation.

The significance of these process questions was reinforced, implicitly and on occasion explicitly, by the discussions on pay television which took place recently at various conferences.[1] People were concerned about whether pay television would be dealt with in a context that would allow for effective meshing of the pay television issue with the other issues of Canadian broadcasting and communications during a transitional period. More significantly, they were concerned with whether they would have the opportunity to influence decisions which were recognized to be of vital and far-reaching significance.

Because of this, we decided to devote some space in this report to raising a number of questions of process.

a) THE NEED FOR LEGISLATION

It may be superfluous (as far as Department of Communications readers are concerned) to suggest that the introduction of pay television in Canada would require some form of Parliamentary legislation. No doubt the Department has gone into this issue in some depth and has arrived, officially, at a policy determination that matches the view that seems to be accepted unofficially in a number of circles: that pay television, in whatever form, would be a sufficiently innovative departure from what is already provided for in existing broadcasting and communications legislation as to require formal action by Parliament (i.e., the passing of legislation) rather than being dealt with by regulatory or administrative extension from existing law and practice. More explicitly: an approach to pay television either by licensing, through the CRTC, or under Order-in-Council without further reference to Parliament would not only be politically and administratively maladroit, but would be beyond the present legal authority for the broadcasting system delegated by Parliament either to the Cabinet or to the CRTC.

While the Department of Communications is presumably fully aware of this point, it appeared to this study group nevertheless that there was considerable (perhaps unnecessary) confusion among concerned individuals and groups as to what route might be taken, or would be taken, to determine a pay television policy and to implement a pay television system (or systems) if the policy were favourable to the provision of pay television services in Canada. Stemming from the uncertainty over means, there was a related uncertainty as to the time that might be required to move from a general determination of the balance of pros and cons for pay television to the actual authorization of the system(s). We feel that the process to be used should be made clear as early as possible.

The arguments favouring a legislative (Parliamentary) approach to the pay television issue are threefold:

(1) that to do otherwise would be to exceed the authority presently delegated to Cabinet and to the CRTC; i.e., an extension of that authority explicitly to cover the pay television situation may now be required, whether or not a decision favourable to the introduction of pay television in the near future is now taken;

(2) that Parliamentary consideration of legislation will offer a greater opportunity for full and public consideration of the range of options that may be available, and consideration of both the sectoral interests and the overall public interests that impinge on the decision;

(3) that Parliamentary action provides a firmer base politically and socially for any decision, particularly vis-a-vis present jurisdictional differences.

In addition to the above, taking the Parliamentary route may be of help in relating pay television to such broader questions as a general review and revision of Canadian broadcasting and communications structures, support of Canadian filmmaking and program production, promotion of Canadian identity, etc.

b) THE ISSUE OF LEGISLATIVE AUTHORITY

This issue stems basically from the question of whether pay television constitutes a sufficiently new departure in Canadian broadcasting/communications to necessitate going beyond present provisions or implications of legislation. It is our considered opinion that it does. In this connection, the following should be noted:

(1) Pay television would represent a new approach to the funding of programming, no matter what form it might take.

(2) A pay television network, on a national (or potentially national, basis) would be effectively a new national broadcasting network. (While this in itself is not necessarily an argument for the "newness" of pay television, it is an added factor weighing on the side of the overall newness of the approach).

(3) Pay television, by implication, could be the first step towards the new communications approaches of the 1980's and 1990's, based on technological change.

(4) At the time of the adoption of the current Broadcasting Act, it was decided that cable television was sufficiently new as to require explicit (if curiously phrased) mention in the Act. Whether or not pay television, if introduced, is distributed via cable, the question of the newness of the approach is made more pointed by this precedent.

(5) If the mode adopted for pay television is one based on the networking (in reality, if not in form) of cable interests, this would represent a significant departure from the current practice of trying to keep cable and broadcasting separate.

The newness of pay television and the lack of clear provision for it in the current Broadcasting Act raise the following issues with regard to proceeding without specific legislation:

(1) Would an effort to extend cabinet authority by inference from present legislation constitute "unusual use" of powers already delegated to Cabinet? "Unusual use" is generally regarded as a criterion limiting delegated powers.

(2) Introduction of pay television by other than the legislative route might well be construed as constituting a <u>de facto</u> amendment of the existing legislation by the Executive, and hence beyond the powers of the Executive.

(3) A further inhibition on the non-legislative route arises if the form of development of pay television is one involving public participation and hence the expenditure of public funds. To place a charge on public revenues on the basis

of extension from general powers and implied responsibilities would be a most hazardous course of action.

c) PARLIAMENT AND PUBLIC OPINION

The interests involved in the pay television issue are considerable and varied. A variety of industrial-commercial interests exists, of course, as well as groups (such as the Canadian Broadcasting League itself) which on a voluntary and historical basis participate in discussions of issues of this kind. In addition, there are (in the words of the Science Council study of technology assessment) a variety of "should-be" participants: those who have an interest, but may not realize what is happening. These range from filmmakers (who were earlier a "should-be" interested group, but required the catalyst of discussion in other sectors to become engaged), to educational groups with an interest in the media, to individual citizens who will be asked to pay for a service.

On a very <u>ad hoc</u>, non-scientific basis, (i.e. the raising of the pay television issue with various men and woman not involved in communications -- e.g., Halifax cabdrivers during the CBL's conference on "Crisis in Canadian Broadcasting"), one of the members of this study group discovered that in almost all cases there was a three-stage reaction: the person hadn't heard of pay television and didn't quite know what it might mean; there was initial hostility to the very idea of paying directly for the service; this was followed by an expression of interest and curiosity as to what such a service might provide, coupled with the implication that if it were introduced and were to provide "something special", the hostility towards direct payment might in fact be reconsidered.

There has been very intense discussion of pay television in the circles most immediately concerned with broadcasting. This has been particularly true since the statement made by the Minister of Communications in June 1976. Further, interested parties have been asked to submit briefs to the CRTC, apparently for transmission to the Department of Communications decision-makers. But in view of the significance of what is being considered, and the range of actual and "should-be" interests that may be affected, wider forms of consultation may be required. In this respect, Parliament can perform a vital role.

In our view, the approach that might be taken could involve consideration and participation at three stages or levels:

(1) The variety of inputs that will have been made by the fall of 1976, as well as internal study by the Department of Communications and other government departments and agencies should be used to prepare a "White Paper" expressing the general intent of the Government of Canada. Such a paper would provide a particular focus for discussion, critique, and further inputs, and could well be considered as an intermediate stage prior to the Department of Communications and the Cabinet becoming committed to the introduction of specific pay television approaches under the provisions of new legislation.

(2) The White Paper initially and, later, such actual legislation as may be submitted to Parliament, would provide the opportunity for hearings by the appropriate Parliamentary committees (especially the House Committee on Broadcasting, Film and Assistance to the Arts). This would give a full opportunity, perhaps greater than that normally afforded even by the CRTC, for expression of the views of technical experts, interests, and concerned citizens.

(3) Discussion in caucus, and on the floor of Parliament itself, would presumably provide some opportunity for a better understanding of the opinions of Canadian citizens in this regard.

It is realized that such a procedure would preclude a quick decision, in detail, on pay television. On the other hand, it is a procedure which seems to be more consistent with normal practice and authority, to be best calculated to vent the issues in a significant area, and to offer some possibility that whatever decisions are taken will be more firmly based in public and political acceptability.

d) FEDERAL AUTHORITY

The jurisdictional issues presently being raised with regard to Canadian broadcasting and communications are beyond the scope of this report. It is sufficient to note that they exist. In general, the following process-related issues arise:

(1) Efforts to negotiate some aspects of the pay television issue with the provincial authorities. It is sometimes argued that because the jurisdictional definition in this area is somewhat clouded (particularly if pay cable is the mode that is adopted), the Federal government must take very quick action in order to safeguard its claim to authority. But emphasis on the issue of the safeguarding of authority, while perhaps justifiable as legal strategy, tends to a further escalation and intensification of national <u>disunity</u> and is therefore counter to the very purpose of national broadcasting in this country. Both structurally and in terms of the additional time-factor built into a legislative process vis-à-vis pay television, additional possibilities for Federal-provincial accommodation arises by using a clearly legislative approach.

(2) The legislative approach provides for the possibility of considering more options, particularly those which come closer to an accepted division of authority (i.e., basing much of the system on over-the-air broadcasting, which would require a very clear legislative authority, rather than, for

example, licensing individual cable operators to provide pay television, which some might argue could be accomplished by an Order-in-Council via the CRTC and by the CRTC licensing provisions). While a Parliamentary route basing pay television, in some form or other, upon the existing broadcasting system (as far as the national network is concerned, even if some local delivery were provided by cable as agents and recipients of the service) would take longer and would be somewhat more complex, the precedent base for Federal primacy in control of the system (thought not necessarily for Federal exclusivity in all details of its operation) would quite possibly be stronger.

(3) In the event of contested issues of Federal-provincial jurisdiction, a clear statement of Parliamentary intent and an expression of the preferred means for achieving these objectives, embodied in Federal legislation duly passed by the Parliament of Canada, would provide a considerably firmer base for the Federal position, in public debate and before the courts, than any other approach that might be conceived.

e) INTERIM LEGISLATION? MULTI-PHASED LEGISLATION? COMPREHENSIVE LEGISLATION?

As the Conclusions and Recommendations of this study will indicate, it is our considered opinion that, if pay television is to be introduced into Canada, a fairly complex structure is required, linking it to the other aspects of the broadcasting-communications system, to wider sources of funding for Canadian production, and to overall objectives as regards Canadian social-cultural development. Clearly an ad hoc or "add on" approach (whereby pay television is regarded simply as yet another device or instrument that can be attached to the broadcasting/communications system, without some fundamental rethinking of structures, purposes, and intent) will not be the best means of serving the public interest, or exercising Federal responsibilities for promoting Canadian objectives through a Canadian communications system.

If, however, the requirement for a more comprehensive legislative approach, which incorporates those provisions for pay television determined to be desirable and expedient, _is_ recognized, so we must also recognize that this will take some time to achieve. Are there not matters that have to be dealt with in the interim?

In the view of this study group, while a careful and orderly process of decision and development is required, under the aegis of the Federal government (with possible provincial cooperation) and involving Parliamentary consideration (ultimately resulting in comprehensive legislation), some interim matters do indeed warrant attention. Initial legislation might be warranted as regards the following:

(1) A clear expression of the role of the Parliament of Canada in this matter, and of the basis for asserting Federal jurisdiction. In particular, clarification is needed of the requirement that pay television systems must meet the objectives and criteria for public interest in broadcasting/communications set down by the successive Broadcasting Acts and related legislation.

(2) There has been concern expressed by some sectors of the broadcasting industry as to competition from unlicensed operations. It is the view of this study group that means can be sought, not necessarily requiring immediate Federal licensing of "authorized" pay television outlets, to prohibit or render difficult unlicensed operations. In particular, it has been suggested that in some areas (e.g., Metro Toronto), U.S. pay television operators might offer over-the-air service from U.S. stations, collecting not a rental on the service but rather a rental for the descrambling hardware _per se_. It is the opinion of some that at present such a service could enter into Canada

with impunity. Interim legislation would seek to close some of these loopholes (perhaps by rendering prohibitive, via tariff regulations, the importation of descrambling equipment except as part of a licensed Canadian pay television network, and taking steps parallel to this to close off the possibility of direct-sourcing of descramblers manufactured in Canada to Canadian subscribers of an over-the-border service).

(3) Interim legislation might also provide for the establishment, monitoring and regulation of an experimental "test bed" for a pay television service in a clearly defined small-to-medium sized area, for a limited period of time, and with no expressed or implied obligation for continuation as a regularly-licensed system. Such an experiment might in fact be run by the Communications Research Centre with the possibility of participation in particular experiments by various interests, public and private. The purpose would be to try out various hardware systems, programming mixes, etc., and to uncover, under contemporary conditions, some of the answers to the social-cultural unknowns that beset consideration of this problem, so that ultimately these findings might be reflected in a total system.

In view of the need both for a comprehensive approach, if national pay television is to be decided upon, and for certain interim measures of a defensive character and for the purposes of exploring technical and social-economic phenomena, it is our opinion that we are more likely to require a multi-phase process of legislative and operational development, over a period of a number of years. While initial steps can be taken in the next year or so, we are looking essentially at the beginnings of a process stretching into the 1980's and beyond.

f) RECONSIDERATION OF THE BROADCASTING SITUATION

In concluding this chapter, we would like to underscore the consideration that has governed this report: i.e., that pay television, in Canada, must be looked at as part of a total broadcasting package. It is our view that the most satisfactory way of dealing with the pay television issue is one that sees pay television decisions as sub-sets of broader broadcasting decisions: the historical precedent and evolution of the Federal role in communications and broadcasting to serve national needs; the existing structure; and pay television as one of the possible socio-economic and technological changes that is leading to broader systems change in the Canadian broadcasting/communications area. Accordingly, we believe that pay television is one aspect of a transitional situation that requires a comprehensive re-examination, in the very near future, of the general structure, process, and objectives of broadcasting/communications in Canada, and for Canadians. What may be required is a redrawn national Broadcasting Act or, possibly, the subsuming of the provisions of the Act (revised) within a broader National Communications Act that will, by the 1980's, recognize the complexities of the growing interpenetration of broadcasting (conventionally defined) and other technologies of mass communication. While we cannot anticipate the shape of such legislation, we do believe that nothing should be done in the pay television area without taking this broader view into account.

ENDNOTES

1. "The Arts in Canada: Today and Tomorrow" (45th Couchiching Conference, 3-8 August 1976), "Crisis in Canadian Broadcasting" (Canadian Broadcasting League, Halifax, 10-12 August 1976), "The Impact on the Program Production Industry" (Council of Canadian Filmmakers, Toronto, 19 August 1976).

CHAPTER EIGHT

CONCLUSIONS AND RECOMMENDATIONS

PART I ANALYTICAL CONCLUSIONS AND RECOMMENDATIONS

We have analysed a variety of current proposals and possibilities using the criteria delineated. Our conclusions with respect to private ownership of a pay television system in Canada are as follows:

1) *There is likely to be heavy concentration of media ownership in the area of pay television should the network be privately operated.*

> There is sufficient concentration of ownership in the broadcasting industry and especially in the cable television industry to suggest that, even under partnerships open to all members of a particular industry (i.e., broadcast or cable), the dominance of particular owners with large-size holdings is likely to put effective control of a pay television network in the hands of a very small group of established interests unless special provisions are made to split ownership.

2) *If we examine the premises of some current proposals, strong, almost dependent ties might be established between Canadian pay television operators and American program packagers.*

> A few semi-monopolistic program packagers supply programming to a majority of U.S. systems. Time Inc., through its subsidiary, Home Box Office, controls the networking through which a majority of pay television subscribers in the United States receive programming. Given the reliance on American programming projected under private models, a considerable amount of Canadian revenue will be directed into the hands of a small group in the United States. In light of government concern embodied in Bill C-58, such Canadian relationships with American program packagers would require extensive investigation and analysis.

3) *There exists a danger that a privately-run network might undertake a "packaging agreement" under which an American distributor would provide American programming at a reduced cost in exchange for suitable Canadian material.*

While this would effectively reduce U.S. program costs it could significantly reduce the benefits to the Canadian film production industry as returns for films would be reduced. It also represents a form of dominance over Canadian program development which might be established by a small group of U.S. program packagers, such as Time Inc.

4) *A privately-operated pay television network under no regulatory constraints would be likely to have a very low percentage of Canadian content.*

Unless the amount of gross revenue devoted to Canadian production is increased beyond 15%, it is unlikely the Canadian content percentage will exceed 16.7%. Under some proposed models, it is likely to be less, especially in the first few years of operation.

5) *Cable industry proposals for pay television development appear to favour tape-bicycling distribution rather than use of satellite facilities.*

In addition to jurisdictional considerations, the use of local tape playback facilities could help to justify the allocation of an inordinately high percentage of gross revenue to the "local distributor".

6) *There is no current indication that a cross-subsidy for French language service would be provided in a private ownership model. While many briefs mention the existence of a French network, no current proposals adequately cover the unique needs of the francophone population.*

> Increased proportionate costs for a French-language service, the problem of programming sources and the ability of Canadian production entities to supply significant amounts of French-language content (bearing in mind the minimal availability of funds which the francophone pay network would generate) suggest a need for specific compensating mechanisms. These, however, would significantly reduce the attractiveness of pay television to private investors.

There are two additional problems which, under most proposals, would be subject to regulatory guidelines. The problems of creating effective guidelines and ensuring enforcement are not insignificant. A pay television service which is privately-owned may be particularly vulnerable to certain pressures.

7) *There is potential for increasing advertiser pressure for access to the new market created by pay television.*

> Diminutions in broadcaster audiences are likely to result in pressures from advertising agencies on the pay television network. To protect the interests, not only of the broadcasting system, but of the viewer as consumer, pay television must remain commercial-free.

8) *The ability of a pay television network to pay for special programs, especially sports and concert features, suggests a danger of "siphoning" and the need to establish strong regulations to ensure that audiences will not lose programs now available free, or those programs of a type which in the future might be developed for the "free" TV service.*

> Siphoning regulations designed to prevent the spill-over of "potential" programs from free (off-air) television to pay television must be regarded as particularly difficult to formulate and enforce, unless prohibitions are made on whole categories of programming -- such as all out-of-town sports events, for example.

In addition to the above, our research has resulted in the following general conclusions.

9) *The total revenue potential of pay television, given a fifteen percent "tap" of revenues, will likely be insufficient in itself to provide the impetus for any major improvements in the present position of the independent Canadian production industry.*

> Our projections indicate that between $6 and $8 million would be available for Canadian production from a mature system available across the country via satellite. For reasons discussed above, private ownership without regulatory guidelines might result in a system capable of generating even less revenue. Our analysis suggests the need for a wider approach to the support of Canadian production, including a "tap" on existing cable television or other communications systems.

10) *Losses suffered by broadcasters might come close to equalling the amount of money available through a fifteen percent "tap" of pay television revenues.*

> The argument for pay television thereby changes from the availability of additional funds to that of the manner in which funds will be distributed (i.e., that pay television will do it better than existing broadcasting structures). Even under conservative assumptions, pay television is likely to cause a shift in advertising revenues equal to about one-half of the value of the fifteen percent Canadian production fund.

11) *The introduction of major pay television services using only existing technology could hinder the application of improved technologies as these are developed.*

> Initial organizational and ownership patterns could heavily influence whether the system of in-the-home entertainment evolves in the direction of a smoother phasing in of a more open-access system (i.e., access to channels of exhibition) which future technological developments might allow.

In the structural recommendations which follow, we have attempted to find means of mitigating the problems outlined above. The problems themselves suggest that the potential of pay television to satisfy even extrinsic considerations has tended to be over-stated.

We have regarded pay television not in the narrow context of an "add-on" service, but rather as part of a broader communications system in Canada. Pay television must be considered in the context of other issues facing Canadian broadcasting and communications in this transition period.

12) *We suggest, therefore, that a fairly complex structure would be required for pay television. It must be linked to wider sources of funding for Canadian production and to the overall objectives of Canadian socio-cultural development. In addition, the introduction of pay television must be regarded as premature without further analysis in the crucial areas of:*

   (a) *the overall magnitude of investment required for expanding and improving the Canadian program production industry in the next five to ten years;*

   (b) *the nature of Canadian programming and its impact on the development of a distinctive Canadian cultural identity;*

   (c) *the range of existing and potential technologies which might impinge on a decision to adopt a particular mode of distribution (specifically, the costs, advantages, and consumer response, all of which could be analysed in a test-bed situation);*

   (d) *public opinion concerning pay television service in particular, and communications media in general.*

PART II SOME EVOLUTIONARY RECOMMENDATIONS

a) INTRODUCTION

Our analysis of the variety of current proposals for the introduction of a pay television system to Canada has led us to the conclusion that:

(1) it would be extremely difficult to develop existing proposals (particularly under the constraints of time required for virtually immediate introduction to Canada) in such a way as to make these proposals compatible with an overriding public interest;

(2) pay television, as it is currently proposed, does not have substantial intrinsic merit from the point of view of Canadian national interest. Rather, its attractiveness stems from extrinsic considerations (e.g., the perceived need to expand the base of support for Canadian program production; long-range future developments in communciations);

(3) the potential of pay television, as delineated in current proposals, to satisfy even these extrinsic considerations has tended to be over-stated (at least insofar as the short and medium-term prospect is concerned).

The above considerations are reflected in the analytical conclusions and recommendations that constituted the first part of this chapter. If we were concerned only with the immediate prospect of pay television, we could very well end our study at this point, with a recommendation that short of a protective stance towards the national interest in this matter, the Federal Government take no operational steps in this direction in the near future. This has been the position of the Canadian Broadcasting League in the past and was affirmed, through the early part of 1976, by a number of bodies concerned with public policy in the communications field.

As they stand, the variety of proposals current in the pay television field seem to be sufficiently deficient, as regards any longer-range view of the national interest, for us to recommend that none of the proposals currently in play be made the basis of binding, continuing policy in the pay television area. This is not, however, the same thing as saying that the Federal Government should abort the pay television policy or that it should not take any steps in this direction in the next few years.

Rather, the base of our recommendation is that steps begin to be taken in the very near future, not to create a pay television system that will become a fixture of Canadian broadcasting and communications for the rest of this century, but rather to explore pay television realities within the context of updated and revised legislation and public policy. Some beginnings are warranted in this area, provided they start from the premise that, in future, certain types of services might well be paid for by subscribers, as part of an interface with a general broadcasting/communications system that continues to offer general programming on "free" (non-subscribing-paid, partly commercial-paid) television as the core of the evolving system.

The task then becomes to define what services might be subscriber-paid; in what ways these might be delivered and tarriffed; and how these paid services should be linked (via programming definitions, revenue recycling, ownership patterns, and regulatory structures) to the rest of the broadcasting/communications systems. This approach may be contrasted to the deterministic view that, since pay television is "inevitable" (largely because of its introduction to the United States), the thrust of examining alternative models is to find ways of living with the pay television phenomenon. Choice, rather than chance, and decision, rather than determinism, seem to us to be keys to approaching the pay television phenomenon in such a way as to further the long-range evolution of systems that will maximize public-interest benefits to the Canadian people and minimize adverse impacts on Canadian broadcasting structure and economics, as well as on our socio-cultural evolution.

Accordingly, we strongly recommend that pay television, if it is introduced to Canada, not be introduced in definitive form (or in such a way as to de facto pre-determine the definitive form) any time within the next three to five years (i.e., prior to 1980 or 1981). We believe that a most immediate need is a period of public policy development and consultation on a much expanded base, accompanied by systems development and experimentation, within the framework of interim legislation and geared to a broad reshaping of legislation in this country. Nevertheless, looking toward the possibility that exploratory steps may lead, over time, to pay television services as part of Canadian broadcasting, we have attempted to outline some features of a pay television system for the 1980's and beyond, that we think should be considered as part of the search for a system that would be most desirable (or less undesirable than some that might be considered).

b) GENERAL CONSIDERATIONS

A number of general considerations bear on the proposals that we are making. Among these are the following recommendations:

(i) The system should be closely linked to evolving patterns of "free" television (broadcast television), particularly television under the auspices of public agencies (CBC/Radio-Canada, and possibly provincial educational networks).

(ii) Consistent with (i) the impact of the creation of additional broadcasting/communications networks should be minimized. Ownership and revenue recycling should be determined in such a way as to build on a base that already exists and that represents the result of decades of public and private effort and investment, rather than weaken what exists in the belief that pay television development will offset this weakening of Canadian broadcasting.

(iii) Accordingly, cable systems as such should not be allowed or encouraged to participate in pay television ownership, network operation, programming, or profits. Rather, cable systems should be looked on as delivery systems interfacing with subscribers, and should be required to provide such service (via a rental of facilities) to the pay television authority. In the longer-run, five to ten years, this should be part of a gradual policy evolution which would lead to cable systems (and ultimately cable analogues, such as fibre-optics based delivery systems) being regarded and regulated essentially under public utility provisions as common carriers for an increasing diversity of signals and services. We strongly urge that the co-mingling of carrier responsibilities and ownership/programming responsibilities <u>not</u> be furthered or permitted (particularly at the national network level), through either direct or indirect ownership of a holding company by a consortium of cable operators, since such a step might very well complicate future broadcasting/communications decisions beyond the point of solution.

(iv) As a further step in the direction of holding the line on the proliferation of networking, we would urge that, if possible, decisions on a "single gateway" for foreign (largely U.S.) programming via a satellite-link be deferred until the basic outlines of a pay television policy become clear and that, if possible, a national pay television network and a national approach to carriage of foreign programming via the "single gateway" be integrated as part of the same policy and within the same organizational structure.

(v) The question of financial aid and policy encouragement for Canadian programming production needs to be looked at in the broadest possible perspective. We do not believe that pay television alone, particularly in its early phases, would yield significant support for Canadian programming production.

Indeed, if straight commercial criteria predominate, any additional support in this direction would almost certainly be more than offset by the additional promotion of American programming over the commercial pay television network. Accordingly, it is necessary to seek the financial base for programming in a wider area than pay television per se and to see that revenues are made available, not only for pay television production of its Canadian programming requirements, but also on an augmented basis for the other parts of the broadcasting/communications system (network television, local programming, community channelling, and in-theatre motion pictures).

(vi) Consistent with the above, any development of pay television should be made subject, right from the start, to significant Canadian content requirements. If systems cannot build in significant Canadian content right from the formative stages, then there is serious reason for considering that development of such a system should be discouraged.

(vii) Any system that is developed should be conceived of as a national system, with provision for French and English programming, and with the maximum possible opportunity for regional participation; in practice, a national system should not be established until its extension across the country (rather than concentration in major cities only) is a reasonable possibility.

(viii) Experimental technical and social/cultural test beds for systems development and assessment should be established fairly early, in a small-sized metropolitan area and under licensing and regulatory conditions that would not lead to a long-term commitment on ownership and operation of the experimental system(s).

(ix) Provisions for pay television should be examined by Parliament in an orderly fashion, following the issuance of a government White

Paper and the opportunity for broad public discussion and consultation. A clear base for pay television, once it is to be introduced, should exist in legislation. Such legislation might proceed by phases or stages, encompassing a number of "defensive" considerations (see above, a discussion of "bootlegging" and across-the-border provision of services) and providing for the experimental test bed, at the start, and only going to a final approach at a later phase. We would also urge that any provision, in law, bearing on pay television, be integrated in a broader process of reassessment and reformulation of the Broadcasting Act and related legislation in the communications and cultural development areas.

c) A POSSIBLE MODEL FOR THE 1980'S AND BEYOND

In line with the above, the following outline of parts of an approach to pay television, in the context of wider development of broadcasting and communications in the public interest, is offered as one possible approach. Here we are discussing a post-experimental phase (starting in the early 1980's).

(i) A pay television authority should be established either as an independent public agency or as a consortium of public and private over-the-air broadcasters.[1] In either approach, a distinction should be maintained between the programming function of the pay television authority and cable or other distribution of the signal.

(ii) In the broadcast-consortium model, the publicly-owned broadcasters should retain majority ownership (60%). Provisions might be made to allow for participation by provincial broadcasting/communications bodies (e.g., educational television) providing majority ownership remains in the hands of CBC/Radio-Canada or any future derivatives of CBC/Radio-Canada.

(iii) If the consortium alternative is adopted, actual administration of the pay television authority should be engaged in by executives of the authority who are not otherwise employees of any of its constituent organizations.

(iv) For the first five years of post-experimental operation, profits to the system should be restricted to not more than ten percent of revenues per year. After the first five years, as the system matures, the profit restriction should be periodically reassessed.

(v) After servicing of debt, system development, and system operating charges, the first charge against revenues of the pay television authority should be the financial support of Canadian production for the system. Differences between revenues and costs of developing and operating the system (including regulated profits) should be channelled directly into a Media Development Fund (see below). A significant proportion of these funds should be used for purchase of programs from independent Canadian production houses for broadcast television.

(vi) The pay television authority should be responsible for:

(1) networking of pay television in Canada and arrangements for local distribution via cable, over-the-air, or by other technical delivery systems;

(2) arrangements with local delivery systems on a rental-of-facility basis (e.g., rental of cable channel), payment for, and ownership of, any necessary hardware specifically related to pay television or subscription television;

(3) commissioning of Canadian programming for the pay television network;

(4) acquisition of any foreign programming for the pay television network;

(5) Any after-sales of Canadian material produced for the Canadian pay television authority (e.g., sales, after exhibition on Canadian pay television, to Canadian broadcast television services; sales for Canadian or foreign theatrical exhibition; sales to foreign television networks or stations including foreign pay television systems).

(vii) A schedule for Canadian content on the pay television network should be developed and implemented via CRTC regulations, as a result of combining Canadian production criteria and percentage-of-revenue criteria. For example, guidelines might be developed along the following lines:

(1) Canadian content requirements[2] (as percentage of hours of first-cycle-per-week programming totals): by end of first post-experimental year of pay television, thirty percent, rising by five percentage points per year; target for end of fifth year, fifty percent. Some formula, similar to that used in defining the nationality of recorded music, should be devised in order to arrive at a definition of Canadian content. This formula should be stringent enough to guard against the mere transplanting of American productions.

(2) As a percentage of total revenue devoted to Canadian production: a minimum of twenty-one percent in the first year, rising by at least three percentage points per year to a minimum of thirty-three percent at the end of five years, or to such a higher figure as may be required to meet the criteria for percentage of programming.

(3) Depending on availability and projected development of facilities, provisional guidelines might be established as regards targets for in-house (or constituent in-house) Canadian production vis-a-vis production commissioned by the pay television authority from independent Canadian producers.

(viii) Role of the cable-distribution industry: the pay television network should not be established by the cable-television distribution industry. Provision should be made requiring cable companies to provide one pay television channel (or two if this is necessary for Enlish and French service) via cable systems, through rental to the pay television authority:

(1) Rental should be based on a formula derived from the costs of the service plus a profit margin to be determined, subject to statistical verification against systems models for cities of comparable size.

(2) Costs of the system could include installation, servicing, local distribution of program information material, and collection and forwarding of subscriber fees to the pay television authority. Cable operators should neither pay for nor own equipment directly associated with pay television. Such equipment should be provided by, and owned by, the pay television authority, and the cable systems should act as agents of the authority in installing and servicing such equipment.

(ix) In the process of this investigation, it became evident that the expansion and improvement of both Canadian production and Canadian broadcasting demands a financial base substantially greater than that which pay television alone can provide. In order to address this priority, therefore, we recommend that the principle of "those who benefit shall pay" be extended to all cable companies and their subscribers, through a direct tap on cable systems and their subscribers.

Revenues for the Media Development Fund should be derived from:

(a) a $10 average surcharge levied directly on all cable television subscribers;

(b) a tax of five percent of cable television revenues;

(c) the surplus of revenues from pay television, on introduction of the service.

Possible allocations of the revenues from such a fund are as follows:[3]

	Variant A	Variant B
Recycle to Canadian production on "free television"	30%	60%

	Variant A	Variant B
Support further development of local community channel programming (added to existing cable company commitments)	20%	10%
Additional funds to Canadian Film Development Corporation for Canadian producer's film production	30%	30%
"Seed money" fund (analogous to Canada Council grants) for innovative television and film production	20%	10%

(x) To the extent that is feasible, the nation-wide distribution system should make use of the Canadian domestic satellite system and the Trans-Canada Telephone System.

(xi) If possible, over-the-air provision of pay television should be provided where cable distribution facilities are not readily available or if over-the-air can be provided to a significant total audience in a given area at costs competitive, or near-competitive, with distribution via cable.

(xii) Particularly in the experimental program, the development of pay television should take into account the possibility of introduction of functioning fibre-optics systems by the latter part of the 1980's.

(xiii) If a single-gateway approach toward imported broadcasting is developed nation-wide (involving rental of programming and stripping of foreign commercials for replacement by Canadian commercials), consideration should be given for operation of this system by the pay television authority (as a parallel system, provided free over-the-air or cable distribution, rather than as an additional "subscriber-pays" service). A proportion of revenues from the "single gateway" should be added to revenues from pay and from cable for recycling into media development.

(xiv) The recycling of funds for Canadian programming on "free-TV" should be governed by a body independent of CBC and the private networks. In general, we would propose that these funds be distributed to CBC and private broadcasters on a sixty-forty percent ratio. Funds so allocated should be used exclusively to supplement existing expenditure on Canadian production on "free" television, on the basis (each year) of a formula deriving from the average of what was otherwise budgeted by CBC, CTV, etc., for Canadian production during the previous three years (i.e., CBC, private broadcasters, etc., would have to allocate to Canadian production an amount equal to the average expenditure by each for the previous three years before receiving additional funds from the "free" TV fund mentioned above).

The discussions and investigations of the past year, focusing on pay television, can only be regarded as preliminary to a much more intensive process of analysis and policy-making. We are on the brink of major decisions about the role and structure of communications in Canada's future and it is only by chance that the pay television issue has emerged as a focal point of debate as we enter this new era.

Almost a half-century ago, the Canadian Radio League was founded because a few concerned individuals had the foresight to envision broadcasting as central to the evolution of Canadian society and culture. Nothing that has occurred in the intervening period modifies these fundamental concerns, but much has occurred to obscure them. It is necessary, as we enter the "fourth phase"[3] in the evolution of Canadian broadcasting/communications, that this fundamental perspective be articulated more clearly, and that conclusions arising from it be integrated more effectively to day-to-day policy decisions.

No responsible body has argued that pay television decisions should be taken in an <u>ad hoc</u> fashion that would seem to obscure further the public interest assumptions that underlie our national communications policy. But the debate, thus far, has shown the difficulties in sufficiently clarifying issues and options to allow for emergence of a policy based on the public interest and on an integrated view of the present conditions and future possibilities for communications in Canada. This study has attempted to make a contribution to the shaping of such policies. But what is really required is a much broader, and more intensive rethinking and reintegration of communications policy and objectives. The policy statements and public debates of the last year, dealing with pay television and other issues, provide some encouragement to the belief that such a reconsideration will not long be delayed.

ENDNOTES

1. In the opinion of this study group, the model of an independent public authority would be most consistent with the Canadian Broadcasting League's principles and objectives.

2. It should be noted that "made-in-Canada" does not necessarily fulfil a criterion of Canadian content. We considered including a requirement that in order to qualify as Canadian content a certain percentage of material shown on the pay network had to be recognizably Canadian in theme, but considered that that cure was worse than the disease. We remain concerned, however, that American productions are not simply transferred to Canadian shooting locations.

3. Hypothesized projections of revenues available for Canadian production by tapping cable revenues and subscription fees. Projections are made on the basis of cable statistics available to March 1976, at which time there were approximately 2.9 million cable subscribers, yielding approximately $130 million in annual revenues.

(All estimates are $ millions)	Variant A	Variant B
Recycle to "free" TV	$ 10.6	$ 21.3
For community cable	7.1	3.5
CFDC - additional funds	10.6	10.6
"Seed money" fund	7.1	3.5

4. The first three phases: radio; television; cable.

Appendix "A"

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Appendix "B"

PAY TELEVISION PENETRATION WITH A PER-CHANNEL CONFIGURATION

a) Introduction

Data from 131 American cable systems with a per-channel pay television service were analysed for purposes of establishing relationships between projected pay cable penetration and the following variables:

- -existing cable penetration;
- -number of regular broadcast signals already available;
- -size of the cable system;
- -rate charged for pay-TV;
- -type of programming package offered.

Most of the systems analysed had been in operation for at least four months, excluding "preview" periods. For those systems which had not been in operation for four months, a "dummy variable" was created to control for the effects of a presumed lower degree of penetration due to the newness of the system. The "type of programming" was evaluated according to which distribution company supplied the programming to the local system. Some distribution companies did not service a sufficiently large number of cable systems to warrant separate analysis. Those distributors which were analysed separately were:

- -Home Box Office (H.B.O.);
- -TeleMation Program Services (T.P.S.);[1]
- -Optical (100) Systems;
- -Pay-TV Services (PTV);
- -Cinemerica (Cin);
- -Best vision (Best).

b) Summary of Findings

Basically, the relationships discovered were as follows:

1) a very strong negative relationship between existing cable penetration and pay cable penetration was found;

2) no definite effects were found to be attributable to the rate charged for pay cable. A lower rate did not imply better penetration;

3) the size of the cable system had a slightly negative effect upon penetration rates;

4) pay television penetration rates increased slightly when there was a greater number of off-air television signals already available on the cable system;

5) a slight difference between penetration rates for systems over four months old and those under four months old (the four-month figure excludes "preview" time) was observed, but perhaps was not as great as would be expected.

c) Sources Used

Data concerning pay cable penetration, basic cable penetration rates, number of subscribers for systems and whether or not the system had been in operation for four months, were obtained from the Paul Kagan Pay-TV newsletter (February, 1976). Data concerning the number of signals available on each cable system were obtained from the Television Factbook (1976), Services Volume.

d) Detailed Regression Equations and Results

With all of the variables in the equation, the use of a least-squares regression procedure yielded the following results:[2]

$$\text{Pay penetration} = .34824 - .4095\,C + .0112\,R - .0000025\,S + .0090\,N,$$

where: C is the basic cable penetration rate (as a fraction)

R is the pay cable rate in dollars

S is the number of subscribers in the system[3]

N is the number of off-air signals available on the cable system.

In addition to the above, the predicted value of pay penetration would be reduced by .0559 if the system were less than four months old.

The coefficient of determination (R^2) of the above equation, with respect to the data available, was .34091. The relative importance of each of the variables in the equation is indicated by the "standardized regression coefficients" (betas) listed below in Table V.

Table V: Relative Importance of Variables in Prediction Pay-TV Penetration

Variable	(beta)	$F^{(i)}$
Cable penetration	-.54492	49.46***
Age of system$^{(ii)}$	-.13418	3.09*
Rate for pay cable	.09681	1.56
No. of cable sub's	-.21231	7.15**
No. of off-air signals	.15347	3.69*

(i) The use of an F statistic and the treatment of the data chosen as a "sampling" problem may be disputable. Significance levels associated with the F-statistics are:

$*\ p < .10$

$**\ p < .01$

$***\ p < .001$

(ii) I.e., whether or not the system is four months old.

Inclusion of separate variables to account for different distribution companies (i.e., different programming packages) increased the prediction accuracy of the equation to yield an R^2 (coefficient of determination) value of .42202. The effect of each of the tested companies on the expected penetration rate was as follows:

Table VI: Programming Effects

Company	$b^{(i)}$
Home Box Office	.0248
TeleMation	.0825
Cinemerica	-.0812
Optical 100	-.0885
Pay-TV Services	.2065
Bestvision	.1215

(i) "b" in this case represents the predicted change in penetration rate attributable to a particular distribution company.

As with some of the other variables, it must be emphasized that this "programming influence" may in fact be attributable to other unanalysed factors rather than the intrinsic merits (or lack thereof) of a particular company's package in attracting viewers. For example, some companies operate in specific geographic areas which might have different population (demographic) characteristics than those found across all systems in general. Directly comparable data were not available concerning such items as: 1) total population of centres the cable systems were serving (cable system size provides only a rough indication of the same); 2) proportion of colour television sets; 3) age characteristics of population in service area; and 5) sex distribution of population in service area. It would be expected that these variables would have a significant influence on the penetration rates of pay television, in addition to those influences already discovered by variables accounted for in the equations used.

e) Discussion

The observed decrease in pay penetration in conjunction with increases in the overall cable penetration rate is consistent with findings of other studies, including:

(1) Stanford Research Institute, "Analysis of Consumer Demand for Pay Television", Report prepared for O.T.P., May 1975.

(2) Burns and Fry, Ltd., "Investment Notes: Pay-TV in Canada", Report dated 24 June 1976.

The relationship is substantial, and has important implications for any projected pay television penetration rates in Canada.

The lack of a definite relationship between the rate charged and the penetration rate is an interesting finding. The observed range of prices for pay-TV ranged from roughly \$6.00 to \$10.00 per month (with a few systems charging closer to \$4.00). Controlling statistically for the effects of different program content packages (at least in terms of the distribution company used), the expected negative relationship between price and penetration (i.e., as price increases, penetration drops) was found <u>not</u> to hold. While other variables (e.g., demographic composition of populations served by different cable systems, which might, for example, affect pricing policy in the first place) might be masking a real influence, the tentative conclusion seems to be that within the range of prices offered, and among those people willing to subscribe to pay cable, the demand for service is <u>not</u> very price sensitive.

The 5.59% differential between newer and older systems might suggest that pay penetration rates will not increase as substantially over time as the penetration rates of basic cable (after an initial penetration has been achieved). This extrapolation is problematic, though, given the fact that most pay systems have been in operation for under eighteen months, and data concerning long-term trends are simply not therefore available.

The finding that pay television penetration increased when there was a greater number of off-air signals available was somewhat at variance with the expected result, but not (as in the case of the relationship between pay cable rates and penetration) completely beyond satisfactory explanation. A more sophisticated audience, or a wealthier audience in those areas which already have a large number of television signals, might in some way explain this relationship, although any such formulation must be regarded as tentative pending further research.

f) Extrapolation to the Canadian Situation

(i) Predicting Canadian Penetration: Some Problems

The average overall cable penetration in the American cable systems studied was 45.6%. The average pay penetration (relative to cable subscribers) was 24.1%. While there were a number of U.S. cable systems experiencing cable penetration rates close to those experienced by many systems in Canada, the tendency of penetration rates to be lower in the United States, especially for large-size systems, raises some particular problems with respect to the use of American data to project estimates for Canada. Even within the range of experiences represented by the U.S. data, wide variances in pay penetration rates among systems make it difficult to predict accurately cable penetration without further data.

In general, those systems which were known to employ a "negative option" marketing technique were deleted from the analysis. ("Negative option" means that cable subscribers are given pay-TV and billed for it unless they specifically request not to have it.) These techniques, while raising penetration, are not likely to be acceptable in Canada. The possible inclusion in the U.S. data of one or more systems (whose exact status could not be determined) which employ such an option might raise slightly, although perhaps not to a noticeable degree, the predicted penetration rates for Canadian systems.

It cannot be overemphasized that predictions for the Canadian experience, where higher basic cable penetration rates are the norm, can only be viewed as an extremely approximate process failing the availability of data directly related to Canada.

(ii) Equations Used

As previously discussed, the rate charged for pay cable can be said to contribute poorly to a prediction of pay cable penetration rates. Basic cable rate was therefore dropped as a variable from the predictor equation. Also, the number of cable subscribers was regarded as particularly problematic in that U.S. data tended not to include large cable systems (over 100,000 homes passed) with penetration rates of better than 50% (in fact, no U.S. system in the sample employed had over 100,000 subscribers, although many approached that figure). Toronto, on the other hand, has two cable systems with over 100,000 subscribers.

Two relationships which seem to be useful in extrapolation are that of the decrease in pay penetration as basic cable penetration increases, and the slight increase in pay penetration as the number of off-air signals increases. An equation for the U.S. data expressing this relationship is given in Table VII.

Table VII: Basic Penetration Prediction Equation (Equation 1)

$$\text{Pay penetration} = .38791 - .4106\ (\text{CP}) + .00826\ (\text{Sigs})^{(i)}$$

$(R^2 = .2938)$ where CP is basic cable penetration

(i) Sigs is the number of signals (off-air) on the cable system.

The use of this equation for Canadian projections would result in anticipated penetration rates for selected major centres as shown in Table VIII.

Table VIII: Projected Pay Cable Penetration for Selected Major Canadian Cities

Centre	Existing Cable Penetration(i) (%)	No. of TV Signals on Cable	Projected Pay Pen (%)
Ottawa	68	11	19.95
Toronto	68	14	22.43
London	83	12	14.62
Vancouver	79	8	12.96
Montreal(ii)	37	10	31.85
Trois Rivières(ii)	64	10	20.77
Halifax	56	6	20.75

(i) Source: BBM Audience Survey, Winter 1975-6.
(ii) Assuming both English and French service available. Penetration projections are particularly problematic for French Canadian population in that it displays characteristics different from those of English population (e.g., in terms of basic cable penetration rates).

Because of the tendency for American cable systems to have lower penetration rates, it was felt that the linear relationship between cable penetration and pay penetration might not adequately reflect a possible reverse tendency at the upper end of the basic cable penetration spectrum --that is, a tendency for pay cable penetration rates to "level off" rather than continue to decline as basic cable penetration increases over the 50% mark. This was tested--again within the range of available U.S. data--by the construction of a more sophisticated (polynomial) equation to express the relationship between cable penetration and pay penetration.

A third degree equation was derived as follows:

Equation 2: Pay penetration = $.44183 + .17076\ C - 1.78277\ C^2 + 1.33118\ C^3$

$\left[R^2 - .31510\right]$ where C is the basic cable penetration

Elimination of the first "C" term did not substantially alter the predictive power of the equation.

Equation 3: Pay penetration = $.46723 - 1.4628\ C^2 + 1.154\ C^3$

$\left[R^2 - .31476\right]$

The introduction of the variable "number of signals" increased the coefficient of determination to .33950. The resultant equation was:

Equation 4: Pay penetration = $.38166 - 1.5757\ C^2 + 1.2552\ C^3 + .0094\ \text{Sigs}$

$\left[R^2 - .33950\right]$ where C is the basic cable penetration

Sigs is the number of off-air signals on cable systems.

Equation 4 has a slightly better predictive power than that presented previously (Equation 1). Unfortunately, this new equation suggests that rather than levelling off, the effect of increased regular cable penetration on pay penetration becomes more substantial as basic cable penetration exceeds 50%. Communities with basic cable penetration rates of between 70 and 80% (not atypical of Canada) would expect pay penetration rates in the order of 10 to 20%. The impact of Equation 4 on projections for pay cable penetration for selected major Canadian cities is detailed in Table IX.

g) Canadian Projections

If programming similar to that found on U.S. pay cable systems is provided in Canada, pay cable penetration in most Canadian cities is likely to be about ten percent of the total number of houses passed. Except in cities with below average cable penetration rates, pay cable penetration is likely to be less than twenty percent in Canada, pending long term developments which might change this trend. Some projections are outlined in the table below.

Table IX: Pay Cable Penetration Predictions for Selected Major Canadian Cities

Centre	Projected Pay Penetration (%)	Projection as a Percentage of Homes Passed	Comparative Projection(i)
Ottawa	15.12	10.28	19.95
Toronto	17.94	12.19	22.43
London	12.67	10.51	14.62
Vancouver	9.23	7.29	12.96
Montreal	32.34	11.96	31.85
Trois Rivières	15.93	10.20	20.77
Halifax	16.43	9.20	20.75

(i) Using a simple linear relationship, generally more optimistic, as detailed in Tables VI and VII.

Projections are extremely difficult in that the Canadian situation is different because of:

1) possible different styles of programming to be offered on Canadian pay-TV, even one which relies heavily on U.S. imports;
2) tendency for basic cable penetration rates to be significantly higher in Canada than in the U.S.;
3) a different orientation people might have to cable service in general (as a necessary rather than discretionary service) in Canada;
4) different size of systems (Canada has a number of cable systems which exceed the maximum size of systems reported in the 131-system U.S. sample from which extrapolations were made).

Pending the availability of uniquely Canadian data, possibly from the limited-scale introduction of pay television experimentation, it is unlikely any projection could make a claim of high prediction accuracy.

Table X: Detailed Penetration Projection for English Canada[4]

City	Projection #1 (i)	Projection #2 (ii)	Total Subscribers
Toronto	145,217	116,081	647,308
Hamilton	23,826	17,652	124,550
Vancouver	39,651	28,243	305,900
sub-total	215,621	167,484	1,077,758
Winnipeg, Man.	29,629	23,569	137,274
Calgary, Alta.	14,224	9,569	97,500
Edmonton, Alta.	19,090	15,120	92,000
Victoria, B.C.	8,851	8,050	81,108
Kitchener, Ont.	15,047	10,304	84,000
London, Ont.	13,453	11,654	92,000
Ottawa, Ont. (iii)	29,335	22,216	147,000
Guelph, Ont.	12,182	3,076	19,961
Kingston, Ont.	4,582	4,686	14,200
Peterborough, Ont.	2,945	2,084	18,600
Sarnia, Ont.	3,552	2,721	17,793
North Bay, Ont.	1,447	1,552	4,488
St. Catherines-Welland, Ont.	8,523	8,883	23,500
Thunder Bay, Ont.	4,065	2,607	26,375
St. John, N.B.	4,569	4,574	16,000
Halifax, N.S.	7,180	5,687	34,600
	384,296	303,836	2,006,340

(i) Using Equation 1, p. 6.
(ii) Using Equation 2, p. 8.
(iii) Excludes Hull, Quebec.

Table XI: Cable Systems Excluded in Table IX

Cable systems over 6,000 subscribers:

No. of systems - 19
Total no. subscribers - 213,676
No. pay subscribers at avg. 19.15% penetration - 40,919. Cum. total 425,215
No. pay subscribers at avg. 15.14% penetration - 32,356. Cum. total 336,192

Calbe systems 1,000 - 6,000 subscribers:

No. of systems - 73
Total no. subscribers - 199,143
No. pay subscribers at avg. 19.15% penetration - 38,136. Cum. total 463,351
No. pay subscribers at avg. 15.14% penetration - 30,150. Cum. total 366,342

Table XII: Detailed Pay Penetration Projections for French Canada[i]

City	Projection #1	Projection #2	Total Subscribers
Chicoutimi	1,219	1,318	3,700
Quebec	13,585	14,519	41,500
Sherbrooke	5,435	4,570	24,759
Montreal[i]	59,106	59,628	295,000
Trois Rivières	3,532	2,759	16,900
Hull	4,544	3,196	26,000
Shawinigan	1,807	1,381	9,500
	89,228	87,371	417,359

(i) The use of projections from the U.S. experience may be especially problematic for the French Canadian population.

(ii) Includes adjustment (downward) to account for proportion of Montreal population which is not French speaking.

Table XIII: Cable Systems Excluded in Table XI

Cable systems over 6,000 subscribers:

No. of systems - 4
Total no. subscribers - 50,000
No. pay subscribers at 21.38% avg. penetration - 10,689
Cum. total - 99,918
No. pay subscribers at 20.93% penetration (proj. #2) - 10,467
Cum. total - 97,838

Cable systems 1,000 - 6,000 subscribers:

No. of systems - 28
Total no. subscribers - 58,447
No. pay subscribers at 21.38% avg. penetration - 12,495
Cum. total - 12,413

ENDNOTES

1. This distributor has since been bought out by Home Box Office.

2. A good reference text discussing regression analysis is E. Beals, Statistics for Economists. Procedures were undertaken utilizing the Statistical Package for the Social Sciences, version 6.02

3. The low coefficient for this variable reflects more the fact that average values for S were in the thousands and tens of thousands than it does the unimportance of the variable itself.

4. Source of total subscriber figures for Tables X - XIII is Matthews CATV list, June 1976.

Appendix "C"

AUDIENCE IMPACT OF PAY TELEVISION

It is axiomatic that the impact of pay television on existing television audiences will be difficult to determine because of the lack of sufficient data upon which generalizations could be based. The experience of conventional television to date will not necessarily replicate itself with the introduction of pay television; this will be discussed in more detail later.

Pay television's impact will be a function of:

1) whether or not pay television derives its viewers from those who would have been watching conventional television at the same time;
2) the proportionate popularity of pay-TV (with respect to other television channels);
3) the penetration rate of pay television.

a) Impact of Pay Television on Total Television Viewing Time

Presumably, the total number of television channels available in some way affects the average number of hours individuals spend watching television. Other factors which might be expected to produce an increase in total viewing time might include, for example, improvements in reception quality (such as those brought about by cable television).

An analysis of television viewing habits in the thirty-one largest anglophone cities in Canada (as listed in Table XV) did not necessarily confirm these assumptions, however. Each area had different television service characteristics (cable penetration, number of commercial television channels available, number of "special" or minority television services such as second language television and educational television). Analysis resulted in the provisional conclusion that little measurable change in television viewing time could be attributed to the availability of additional television channels. The results are summarized in Table XIV.

Table XIV: Effects of Different Television Service Characteristics[1]

Characteristic	Average weekly increase (decrease) in viewing time attributable to characteristic (controlling for the effects of such things as population size of community)
Each additional local television signal	- .00088 hours
Each additional distant television signal	+ .0025 hours
Introduction of 2nd language service	+ .0017 hours
Introduction of educational service	+ .0052 hours
Each 10% increase in cable penetration	- .0039 hours

If treated as sample data, none of the above relationships were statistically significant ($P > .05$).

The low correlations suggest that television viewing time is not very much a function of the number of "choices" available, even if some of these choices for a small proportion of the population represent "significantly different services". If one adjusts for the small proportion of audience that educational or second language services receive with respect to an average commercial television service, the impact of these services on the total weekly viewing time averages appears to be, pending further investigation, not very important.

Far more important, for example, than the effect of additional "choice" is that of demographic characteristics: adults in the age group of eighteen to twenty-four years have been reported to watch an average of four hours per week less than the average for the total population, while individuals sixty-five years of age and older watch an average of ten hours per week more than the entire population average of 24.87 hours.[2]

Failing other indications, the conclusion at this stage must be that the introduction of a new television service, even one which is "significantly different", will do little to affect the average viewing time which is devoted to the medium of home television. It can probably be assumed that most of the viewing time which is devoted to pay television will in fact come from that time which already is spent watching commercial television. Further investigation of this matter in an experimental situation may, however, be useful.

b) Audience Distributions

Data available for purposes of constructing a model to isolate the effects of additional television services on the existing CBC and CTV networks and independent stations[3] was somewhat limited. Some agencies proved to be helpful in providing data, but unfortunately Bureau of Broadcast Measurement (B.B.M.) surveys are not available to the general public. Moreover, those groups subscribing to the service are often under contractual obligations not to release data. Thus, the Canadian Radio-television and Telecommunications Commission was unwilling to supply us with historical audience data which we might have used to complement the 1976 data and a limited set of historical observations already available to us.

There are, we feel, some serious difficulties with the current arrangements by which audience measurement is made. While the results of the industry-sponsored B.B.M.'s are available to most private groups in the broadcast environment -- advertising agencies, for example, do not seem to have difficulty obtaining them -- the lack of publicly available information may argue in favour of the investigation of changes in the manner in which the federal telecommunications regulatory agency obtains its audience data. While a detailed analysis of this problem would be beyond the purview of this study, we cannot help but wonder whether an alternative to the Bureau of Broadcast Measurement's current system might provide an improvement in terms of public availability of data and increased flexibility in terms of the questions which might be asked.

Data readily available for our use (for which we did not make a commitment to withhold results) consisted of the following:

1) B.B.M. statistics for 31 major anglophone metropolitan areas in Canada (defined in BBM reports as "C.A." or "C.M.A." areas). Fall/winter 1975-6 survey;

2) A.C. Neilson "November N.B.I." data for eight Canadian cities from 1960 to 1974. A total of seventy observations were available. In the case of some cities, data were only available since 1971, so these data were mostly used in the form of a more limited set of forty observations from 1971 to 1974, with presumably comparable 1975 observations added;

3) B.B.M. statistics for six major francophone metropolitan areas in Canada. Fall/winter 1975-6 survey.

The cities represented are shown in Table XV.

Table XV: Canadian Cities Used in Sample[4]

(i) Eight City Sample (Historical data 1971-1975)

Halifax	Winnipeg
Ottawa-Hull	Calgary
Toronto	Edmonton
Kitchener	Vancouver

(ii) Additional Cities Covered in 31-city Sample

St. John's, Nfld.	Peterborough	Timmins
Sydney, N.S.	Oshawa	Sault Ste. Marie
Moncton, N.B.	Hamilton	Thunder Bay
Saint John, N.B.	St. Catherine's - Niagara Falls	Sarnia
Kingston	Guelph	Regina, Sask.
Brantford	Windsor	Saskatoon, Sask.
London	Sudbury	Lethbridge, Alta.
North Bay		Victoria, B.C.

(iii) Francophone Cities

Chicoutimi-Jonquière	Trois Rivières
Quebec City	Shawinigan
Sherbrooke	
Montreal	(Hull-Ottawa)

Modelling techniques to isolate the effects of the impact of additional television signals on viewing habits make a number of assumptions, including:

1) reasonable homogeneity among the aggregate (total within a given area) orientations (preferences) of audiences country-wide (i.e., the "predictor" paramaters of number of competing signals, cable penetration and population of community have a consistent effect country-wide);

2) service provided is identical in content (especially for the service for which audience share predictions are being made, but also in regards to a presumed similarity in "competing signals" from city to city);

3) service provided is identical in availability (technical quality).

Certainly, these assumptions are not (and cannot) be fully met. Problems with assumption 1 can be in part corrected by the inclusion of tests for "regional" preferences and the application of statistical controls. Assumption 2 holds more during prime time (the most important, audience-wise), but not necessarily for other periods of time. Finally, some of the problems with the violation of assumption 3 can be accounted and controlled for by differentiating between those cities which received service via a local transmitter and those which do not.

(i) Detailed Findings for CBC

Equations were derived from three different sources:

1) 31-city sample for 1975/6;

2) 8-city sample, using all observations available (70, from 1961 to 1975);

3) 8-city sample, using observations for which data available for all 8 cities (i.e., 1971 to 1975).

The basic equation derived from source 1 was as follows:

Table XVI: CBC Audience Impact, 31-city sample

Equation 1:

$$\text{Audience share (\%)} = 31.033 - 6.009\,L - 1.310\,D - 1.338\,Ed + 2.232\,Sec + 14.842\,A_1 + 1.066\,Dup + .0272\,CP - .0000084\,Pop$$

N = 31
R^2 = .6545

L = no. of local signals (not incl. network duplicates).
D = no. of distant signals (not incl. network duplicates).
Ed = no. of educational TV signals.
Sec = no. of second language (Fr.) signals.
A_1 = dummy variable for "local signal quality" A_1=1 if signal transmitted locally, A_1=0, if not.
Dup = dummy variable for whether or not network signal is duplicated by another receivable (distant) signal. Dup=1 if yes, Dup=0 if no.
CP = cable penetration, expressed as a percentage.
Pop = population of area.

If treated as a problem amenable to the application of statistical tests of significance, the related B (beta) ratios, F-test results and significance levels for the variables in the equation of Table XVI are as follows:

Table XVII: Statistics Relating to Table XVI

Predictor	B (beta)	F	P
L (# local signals)	-.5420	9.438	$<$.005
D (# distant signals)	-.3029	1.722	--
Ed (# educational signals)	-.0897	.1232	--
Sec (# 2nd language signals)	+.1167	.5594	--
A_1 (if local transmitter)	+.5111	5.523	$<$.05
Dup	-.0576	.1437	--
Cable penetration	+.0817	.1221	--
Population	-.0408	.0612	--

Because of low beta-weights, all variables except L, D, and A_1 were dropped from the equation. A new set of factors to differentiate Canadian cities regionally was introduced, although to maintain adequate sub-samples only three divisions were made: 1) Maritimes; 2) Ontario; 3) Prairies-B.C. The resultant equation is shown in Table XVIII.

Table XVIII: Estimated CBC Audience Share (31 City Sample)

Equation 2:

$$\text{CBC Audience Share (\%)} = 36.353 - 7.589\,L - 1.835\,D + 19.297\,A_1 \; (-\,6.967\,Pr - 7.603\,Mt)$$

R^2 = .71755

L, D, A_1 as per description, Table XVI

Pr = 1 if area in Prairies or B.C., 0 otherwise
Mt = 1 if area in Atlantic provinces, 0 otherwise

Predictor	B (beta)	F	P
L	-.6845	32.09	<.001
D	-.4242	9.49	<.005
A_1	+.6645	24.12	<.001
Pr	-.2854	5.46	<.05
Mt	-.2618	3.96	<.10

This predicted 7.59% decrease in the CBC network's audience share might vary from community to community. Communities with a high degree of fragmentation might experience less of a proportionate impact from a hypothetical "new local service", although if treated as sample data, at 95% confidence this impact would still be at least 4.86%. An attempt to isolate a pattern indicating a decrease as existing fragmentation increases for the 31-city sample was not successful, however; the inclusion of a quadratic component improved the prediction accuracy of the equation negligibly (from .64465 to .64570). Over the 31-city set of observations, then, the predicted impact of a new local service would remain close to 7.59% regardless of the number of local signals already existing.

The 7.59% figure was the highest one achieved; the use of other data produced results which were somewhat lower. Other equations indicated an average 3 to 4% decrease attributable to additional local signals.

Table XIX: Estimated CBC Audience Share (8 City Sample)

Equation 3:

CBC Audience Share (%) $= 41.5608 - 3.182\ D - 2.735\ L + 1.303\ A_1 - .8488\ Oth$

$R^2 = .56996$ where: D, L and A_1 as in Table XVI
Oth = "other" - educational, second language or duplicate network signal

Source: 8-city sample, #2 (since 1961, 70 observations). Because of an "equivalent" problem, the use of this data may not be as reliable as that from other samples.

Equation 4:

CBC Audience Share (%) $= 36.8017 - 4.101L - 2.410\ D + 5.493\ A_1$

$R^2 = .46463$ Source: 8-city sample, #3 (since 1971, 40 observations).

For Equation 4 above, a slight improvement in prediction accuracy was achieved through the use of a quadratic equation (i.e., a 2nd degree equation to account for the effects of a decrease in impact as the amount of existing fragmentation increases). The resultant equation was:

Equation 5:

CBC Audience Share (%) $= 50.1842 - 3.059\ D - 9.05L + 1.106\ L^2 - 1.37\ Oth$

$R^2 = .51233$ where: D, L, A_1 and Oth as above tables.

The impact of an additional television signal on existing CBC audiences is shown in Table XX.

Table XX: Impact of Additional Television Signals on Existing CBC Audiences

Increase From:	To:	Local Signal Added (1)	Distant Signal Added (2)	Worst of (1), (2)
1 signal	2 signals	- 5.712%	- 3.06%	- 5.712%
2 signals	3 signals	- 3.540%	- 3.06%	- 3.54%
3 signals	4 signals	- 1.308%	- 3.06%	- 3.06%

N.B.: 1) Equation 5 does not account for decreases in the decrease which might mean some of the lower range figures in column 1 might be undervalued.

2) The impact of additional distant signals added appeared to be reasonably constant.

3) Percentages refer to proportion of total viewing time (across all stations).

Given the results expressed in Equations 2, 4, and 5, a tentative conclusion that the audience impact of an additional television service on CBC will be in the order of between 3 and 7% seems to be warranted. This impact will decrease to a minimum of about 3 to 4% if the existing amount of fragmentation (i.e., in major centres) is large. Further comments are provided in the summary.

(ii) Detailed Findings for CTV

Analysis similar to that undertaken (above) for CBC was undertaken with respect to the impact of a hypothetical new television service on CTV. While "initial" audience values appeared to be higher, the incremental impact of additional signals appeared also to be higher (at least in terms of absolute percentages) for CTV.

The following relationship represents the results of analysis undertaken on the 31-city sample (analogous to the findings of Equation 1 for CBC):

Equation 6:

$$\text{CTV Audience Share (\%)} = 55.687 + 16.319\,A_1 - 6.985\,L - 5.039\,D - 1.827\,\text{Oth}$$

$$R^2 = .81073$$

The inclusion of a "second degree" term to account for possible decreases in the impact of local service as the degree of fragmentation already existing increases did not enhance the explanatory power of the above variables: the new equation had a coefficient of determination (R^2) of .81078, not really much different from that of Equation 6. On the other hand, the incremental impact of distant signals did appear to decrease after the effect of the first distant signal had been felt, as expressed by the following relationship:

Equation 7:

$$\text{CTV Audience Share (\%)} = 47.769 + 24.0\,A_1 - 11.02\,D + 1.03\,D^2 - 5.305\,L - 1.626\,\text{Oth}$$

$R^2 = .85727$

A_1 = whether or not signal available from local transmitter (if yes, A_1=1; if no, A_1=0)
L = no. of local signals
D = no. of distant signals
Oth = no. of educational, duplicate network and second language signals

The impact of an additional television signal on existing CTV audiences is shown in Table XXI.

Table XXI: Impact of Additional Television Signals on Existing CTV Audiences

Increase From:	To:	Local Signal Added (1)	Local Signal Added (2)	Worst of (1), (2)
1 signal (i)	2 signals	-5.305%	-7.93%	-7.93%
2 signals	3 signals	-5.305%	-5.87%	-7.93%
3 signals	4 signals	-5.305%	-3.81%	-5.305%

(i) "Signals" refers to commercial network television, each additional unduplicated network. Refer also to notes for Table XX.

Similar results, with perhaps a slight reduction in the projected impact of additional television on CTV audiences, were obtained with the data from the 8-city sample. See equations 2 and 3 in Table XVI.

Table XXII: Estimated CTV Audience Share (8 City Sample)

Equation 8:

CTV Audience Share (%) = 55.069 - 3.655 L - 4.255 D - 2.518 Oth

R^2 = .51438 Source: 8-city sample, Equation 2 (see Table XVI) The use of this data may not be as reliable as that from other samples (e.g., Equation 3)

Equation 9:

CTV Audience Share (%) = 64.60 - 4.909 L - 5.358 D - 2.05 Oth

R^2 = .67285 Source: 8-city sample, Equation 3 (see Table XVI) 40 observations from 1971 to 1975.

N.B.: For each of the 8 cities, a local CTV transmitter was in operation.

If treated as a sample problem, the associated statistics would be:

Variable	Standard Error	F	P
L	1.62	9.13	$<.005$
D	.843	40.35	$<.001$
Oth	1.02	4.02	$<.05$

As with the case of the 31-city sample, the use of an additional variable to account for the diminishing impact of each additional distant television station as the total number increases yielded a slightly more predictive equation, as shown in Table XXIII.

Equation 10:

CTV Audience Share(%) = 66.069 - 2.077 L - 13.300 D + 1.36 D^2 - 2.439 Oth

R^2 = .76005 Source: Same data as equation 9.

Table XXIII: <u>Impact of Additional Television Signals on Existing CTV Audiences</u>

Increase From:	To:	Local Signal Added (1)	Distant Signal Added (2)	Worst of (1), (2)
1 signal	2 signals	-2.077%	-9.22%	-9.22%
2 signals	3 signals	-2.077%	-6.50%	-6.50%
3 signals	4 signals	-2.077%	-3.78%	-3.78%
4 signals	5 signals	-2.077%	-1.06%	-2.077%

Given the results expressed in Equations 7, 9, and 10, a tentative conclusion that the audience impact of an additional television service on CTV will be between 2 and 7% appears to be supportable. The impact in a centre with a high degree of existing fragmentation would appear to be between 2 and 5%.

(iii) Independent Television Stations

The newness of third English-language television services in some Canadian cities made analysis of the impact on them of additional television signals difficult. An equation with the independent station audience share as the dependent variable and the number of distant and local signals as independent variables had a coefficient of determination of only .0500. More important for predicting audiences appeared to be the cable penetration rate. Probably because of the use of UHF transmitters by some of the broadcasters, increased cable penetration substantially increased audience size. With population size, number of local signals, number of educational signals and cable penetration controlled for, the appearance of additional distant television signals did seem to have an impact on audience size for independent television stations or networks, but these results were inconclusive due to a low sample size (15 cities, 15 observations). "Distant" signals each appeared to take away about 1.44 percentage points from the "independent" audience (important, given the low audience size in the first place), but (if treated as a sampling problem) none of the results were statistically significant due to the small number of observations. However, the equation from which the 1.44 figure was derived had a high coefficient of determination (.68).

(iv) Francophone Viewing Patterns

Given the low number of observations (seven), any conclusions concerning French-Canadian viewing patterns and the impact of additional television must be even more tentative than those for the independent television operations. (If treated as a sample problem, all of the relationships below would fail to be statistically significant at the .01 level.) The cities in which observations were available uniformly had two French-language television services, although some only had them through distant signals. Therefore, the impact of additional French-language services on a French population could be tentatively analysed. Considering only that portion of the population which was French (in Montreal and Ottawa-Hull there were significant English populations which could have biased results if included), the independent effect (subject to further verification) of an additional local English signal appeared to be a decline of 10.12 percentage points on CBC French service, and 12.78 for TVA. These results are tabulated in Table XXIV.

Table XXIV: <u>Predicted Audience Share for CBC (French) and TVA</u>

$$\text{CBC-French Audience Share}^{(i)}\ (\%) = 71.211 - \underset{(7.93)}{10.48}\,A_2 - \underset{(3.78)}{10.122}\,LE - \underset{(2.04)}{3.822}\,DE$$

R^2 = .727

where A_2 = whether or not there is a competing duplicate CBC (distant) station, if yes, A_2=1; if no, A_2=0

LE = no. of local English television stations

DE = no. of distant English television stations

$$\text{TVA Audience Share}^{(i)}\ (\%) = 74.02 - 19.81\,A_2 - 12.78\,LE - 4.15\,DE$$

where A_2 = whether or not there is a competing duplicate TVA (distant) station

(i) Among French-speaking viewers

(c) Summary and Projections for Pay Television

Tables XXV and XXVI present examples of the impact of a hypothetical new television service on audience patterns in three Canadian cities for existing CBC and CTV network audiences.

Table XXV: Impact of Hypothetical New Television Service on CBC Audiences

City	Decline Proj. #1 (Table XX)	Decline Proj. #2 (Table XVI)	Existing Share	Decline as Proportion of Existing Share
Halifax	3.540	7.59	28	12.6-27.1%
Kingston	5.712	7.59	31	18.4-24.5%
Toronto	3.06	7.59	16	19.1-47.4%

Table XXVI: Impact of Hypothetical New Television Service on CTV Audiences

City	Decline Proj. #1 (Table XXI)	Decline Proj. #2 (Table XXIII)	Existing Share	Decline as Proportion of Existing Share
Halifax	5.87	6.50	49	12.0-13.3%
Kingston	5.305	3.78	17	22.2-31.2%
Toronto	5.305	2.077	20	10.4-26.5%

In general, the projections are "worst case" with respect to conventional television broadcasting. That is, they plot the impact of the type of conventional television most likely to do the most damage to existing viewing audiences.

Extrapolating these findings to pay television cannot, of course, be done easily. First, due to the nature of pay television (commercial-free and with a programming-mix significantly different from other television services), the use of the "worst case" projections would appear to be more than appropriate. They may, in fact, be extremely conservative.

Bearing in mind that the projected declines apply only to that proportion of the audience subscribing to pay television, one would expect that, due to the interest in the particular programming offered (as indicated by a willingness to pay), the use of a model based on the introduction of television freely available to anyone would produce estimates which would be low. People paying for a "per channel" option might well divert viewing time more than they would have normally simply to "get what they paid for". So we must conclude that in general the audience impact projections, when applied to pay television, are somewhat conservative; there may in fact be an impact two or more times as strong as that projected (among pay subscribers).

What do these figures mean in terms of the projected pay television penetration rates? A reasonably straight-forward method by which the impact in terms of viewer-hours could be projected would be to:

1) calculate the average weekly loss per viewer by multiplying the percentages arrived at in Tables XVI, XX, XXI, and XXIII by the average weekly viewing time (23.87 hours);
2) calculate the number of viewers involved by multiplying an estimated number of viewers per subscription by the projected penetration of pay television (Appendix "B");
3) multiplying the number of viewers by the average loss per viewer.

This method was used on a city-by-city basis for Table XXVII (different cities having not only different penetration estimates but also different projected impacts).

How many viewers can be assumed to be in each pay television household? Canadian Cablesystems <u>et al.</u>, in a brief to the Canadian Radio-television and Telecommunications Commission dated May 16, 1975 ("The Opportunities, Challenge and Approach"), use the figure of two adults per subscription. This figure will be used for the following projections.

Using the penetration projections from Appendix "B", the total number of viewer-hours lost to the two networks (CBC, CTV) for Toronto-Hamilton and Vancouver are as plotted in Table XXVII.

Table XXVII: Conservative Estimates of Weekly Viewer-Hour Loss for CBC and CTV in Toronto, Hamilton and Vancouver

	CBC		CTV	
City	Decline Proj. #1 (Table XX)	Decline Proj. #2 (Table XVI)	Decline Proj. #1 (Table XXI)	Decline Proj. #2 (Table XXIII)
Toronto	212,138	526,186	367,776	143,998
Hamilton	34,806	86,332	60,342	23,624
Vancouver	67,010	143,674	100,420	71,552
	313,954	756,192	528,538	239,164

N.B.: 1) All figures in viewer-hours per week.

2) Based on: (estimated pay penetration) x (no. of viewers/subscription) x (no. of hours lost per viewer)

3) Sources: Estimated pay penetration - Appendix B

No. of viewers/subscription - assumed to be two (this figure may be conservative)

No. of hours lost per viewer - 23.87 (avg. viewing total/week) x percentages as in Tables XVI, XX, XXI and XXIII.

Based on the following penetration projections:

Toronto (census metro. area)	145,217
Hamilton " " "	23,826
Vancouver " " "	39,651

In terms of pay television penetration projections, if pay television were offered to all cable television systems in English Canada with a subscriber list in excess of 6,000, the Toronto, Hamilton, Vancouver total would represent approximately half of these systems (see Appendix B). French Canadian penetration projections would add approximately 20% to this figure.

d) Financial Impact

The number of viewer-hours which will be lost in total to CBC and CTV in Toronto, Hamilton and Vancouver have been calculated above in Table XXVII. Canadian Cablesystems et al. (brief to CRTC, May 16,1975) have helpfully compiled statistics pertaining to average television revenues per viewing hour. They indicate, for the year 1974, an average cost per thousand viewers for a 30-second spot ad of $2.27. Based on nine minutes of advertising per solid hour, the cost per viewer-hour is 4.1¢. Undoubtedly, this figure has risen slightly (due to inflation) since 1974. An examination of rates as indicated in Advertising Rates and Data (CARD) and audience figures as indicated in recent Bureau of Broadcast Measurement surveys, the cost per thousand of spot ads placed on the CTV network, the Global network and CBC (Metronet and national) appears to range from $1 to over $3, depending on the network and the program. (With the exception of Global, rates are often constant over certain prime time hours regardless of whether or not the show is slightly more or less attractive.)

It would appear reasonable, then, to use a figure of between 4.1 and 4.5¢ per viewer hour, which is a simple extension of the cost as calculated by Canadian Cablesystems et al. to a projected 1976 average.

The total cost to broadcasters, based on 4.5¢ per viewer hour, would be as follows in Toronto, Hamilton, and Vancouver alone.

Table XXVIII: Financial Impact Projections

	CBC		CTV	
	Proj. #1	Proj. #2	Proj. #1	Proj. #2
No. of hrs./wk.	313,138	756,192	528,538	239,164
Financial impact(i)	$732,743	$1,769,489	$1,236,779	$559,644

(i) Based on (no. of hours) x (52 wks./yr.) x 4.5¢/hr.

These figures could easily increase as the degree of pay penetration increases. If all cable sytems over 6,000 subscribers offered pay television, there would be a projected doubling of the number of pay subscribers for Toronto, Hamilton, and Vancouver. This would mean that on a Canada-wide basis, the figures in Table XXVIII would be doubled. If cable systems of between 1,000 and 6,000 subscribers were included as well, an additional 10% increase (with respect to the doubled figure) would be expected (although average loss per viewer varies somewhat from city to city). Finally, if French Canadian cable systems were included, another 20% increase would be expected (again, with respect to the doubled figure).

Using the same pay cable penetration projections as given in Tables XXVII and XXVIII, a 15% fund for Canadian programming production (assuming an $8 per month pay television fee) would result in revenues of $3,005,190 annually. Against this, however, might be balanced a loss of between $1,292,000 (using the two lowest projections for CBC and CTV respectively) and $3,006,268 (using the two highest projections). It should be reiterated that these projections may all tend to the conservative side.

The ratio given above ($3 million at 15% going directly into program production versus $1-½ to $3 million lost to broadcasters) will remain reasonably constant regardless of penetration rate assumptions. That is, even if the penetration assumptions from which the total financial impact projections are calculated are grossly inaccurate, the ratio given above (between 1:1 and 2:1) will tend to hold (with minor variations due to the fact that different cities will have different projected impacts on CBC and CTV audiences).

<u>ENDNOTES</u>

1) Source: BBM Reports.

2) Television Bureau of Canada, <u>Television Basics 1974/5</u>.

3) In this case, Global in Ontario and a third (independent) television service in Winnipeg, Edmonton and Calgary.

4) Source: BBM Reports.

Appendix "D"

ESTIMATED TOTAL CAPITAL AND OPERATING COSTS FOR DIFFERENT PAY TELEVISION CONFIGURATIONS

The figures projected here are approximations (using 1976 dollar values throughout) of the total capital costs involved with different types of pay television distribution systems. Definite property (rental) costs are excluded as being too variable to assess accurately without further research (it is assumed that cable companies will be capable of providing space for reception or playback equipment for a rental fee of perhaps 1% of revenues).

For purposes of estimating capital equipment costs for descrambler and decoder equipment, penetration projections used for the assumed number of subscribers for whom devices would have to be available were the lower projections in Appendix "B" for the first year of operation, with 20% added for the second year. For decoder equipment, the higher figures presented refer to a Blonder-Tongue style configuration, while the lower ones refer to T.E.S.T.-style equipment. A full explanation of cost figures used not only for descramblers but also for other equipment is contained in notes at the end of this appendix.

A 30% figure was assumed for the cost of U.S. programming; this figure is consistent with the costs reported by U.S. systems. Although some cost-cutting may be achieved by monopsomy buying, since U.S. products will tend to dominate air-time (see Appendix "E"), it was deemed best to provide estimates that are slightly high to account for possible increases in royalty demands by U.S. producers. A reduction to 25% or less might be possible, but probably only if the rights of Canadian programs for U.S. showing are bargained against reduced U.S. program costs. (For reasons outlined in the text, this possibility was not considered to be highly desirable.)

a) Toronto, Hamilton, Vancouver

Capital Costs

Master studio	$663,600
Microwave links (rental)	
Playback studio-Vancouver	300,000
Video tapes	20,000
3 scrambler/modulator packages @ $3,000	9,000
Sub-total	$992,600
Decoder equipment:	
167,484 subscribers, upper estimate	$10.886 million
lower estimate	2.713 million
Total Capital Cost	$ 3.706 to $11.879 million

Annual Depreciation Cost

Decoders 3 yr. straight line, 12% interest	$ 1.057 to 4.243 million
Other equipment 5 yr. straight line, 12% interest	$ .263 million

Revenue

	1st year (i)	Subsequent years (ii)
No. subscribers (avg.)	83,742	200,980
Total income @ $8/mo.	$8.039 million	$19.29 million

(i) Avg. no. subscribers = Total number at end of year ÷ 2

(ii) Assuming a 20% increase after 1st year, representing approximate difference between "optimistic" and "pessimistic" projections in Appendix "B".

Expenses

Operating, excluding program purchase, Canadian program fund.

	1st Year	Subsequent Years
1) Master and playback studio technical staff (i)	$ 136,000	$ 136,000
2) Video tape replacement costs (four 1" tapes/wk. @ $60)	13,000	13,000
3) Shipping costs for tapes (rail express)	2,500	2,500

Expenses (continued)

		1st Year	Subsequent Years
4)	Program purchase admin. staff of 3 (foreign pgms. only)	$ 35,000	$ 35,000
5)	Billing costs $2.20/subscriber per year	368,464	442,156
6)	Microwave rental	20,000	20,000
7)	Commission to cable companies (2%)	160,780	385,800
8)	Sales commission @ $10/sub.	1,974,840	602,940
9)	Disconnect costs. Assume 2.5%/ month costing $6 each	201,471	361,764
	Sub Total	$2,612,055	$1,999,160

Additional descrambler purchases in year 2 (projected) $ 542,600 to $2,177,000.

(i) Staff of 5 in main studio, 3 in playback studio, plus supervisor for each.

Summary of Costs

	Year 1	Subsequent Years
Operating Expenses	$2,612,055	$1,999,160
Program expense (U.S.) (30% revenue)	2,412,000	5,787,000
20% fund for Can. production	1,608,000	3,858,000
Depreciation (a) upper	(4,506,000)	(4,506,000)
(b) lower	(1,320,000)	(1,320,000)

Total Costs

Year 1 — $7,952,055 to $11,138,055 depending on decoder technology employed.

Subsequent Years — $12,964,160 to $16,150,160, depending on decoder technology employed. (Extra decoder purchases, if not amortized, would bring this figure to $13,506,760 to $19,327,160.)

N.B.: Studio equipment, depreciation, administrative expenses and distribution costs excluding decoder costs bring network expenses to approximately 5% of revenue in year 1, less in subsequent years.

b) Canada-wide System (English)

(i) Comparison Between Tape and Satellite Costs

Assuming a one hour time delay would be tolerable (1½ hours in Newfoundland), two satellite channels could provide full service to Canada's six time zones.

For each receiving location, tape playback studio costs are $250,000. (Amortized over 5 years = $97,450/year)

Staff costs = $56,000/year.

Tape shipping, tape replacement costs = $3,000/year.
Total cost per receiving location = $156,450/year.

A satellite receiving station costs $26,000. (Amortized over 5 years at 12% interest = $6,890/year)

Difference between satellite and tape playback = $150,000/year/location.

Satellite rental rate is $1.5 - $2 million/channel/year. If one channel is used, when the number of systems exceeds 10 - 15, satellite transmission is cost effective. If two channels are used, satellite is cost effective when the number of systems exceeds 20 - 30.

N.B.: Use of multiplexed satellite channel (2 signals on each channel) with increased earth station costs, would result in even greater efficiencies until a point where number of receiving stations exceeds 75.

(ii) Analysis of expenses and revenues for system involving all English cable systems over 6,000 subscribers (assuming satellite distribution)

(38 systems)

Capital Costs

Master studio	$ 663,600
1 playback studio (ultimately to be used for 2nd satellite network)	300,000
38 satellite earth stations	988,000
38 scrambler/modulator packages @ $3,000	114,000
Descrambler system	
336,192 subscribers, upper estimate	$21.852 million
lower estimate	$ 5.446 million
Total Capital Cost	$7.512 million to $23.918 million

Annual Depreciation Cost

Decoders, 3 yr. straight line, 12% interest	\$2.123 to \$8.518 million
Satellite, studio and other equipment (5 yr.)	\$ .682 million

Revenue

	1st Year	Subsequent Years
No. of subscribers (avg.)	168,096	403,430
Total income (@ \$8/mo.)	\$16.137 million	\$38.729 million

Expenses

Operating expenses, excluding Canadian production fund and program (U.S. and other foreign) purchases.

		Year 1	Subsequent Years
1)	Master, playback studio technical staff	\$ 136,000	\$ 136,000
2)	Program purchase admin. staff (foreign programming)	35,000	35,000
3)	Satellite channel rental a) Yr. 1 - 1 channel b) subsequent years - 2 channels	1,500,000 (i)	3,000,000 (i)
4)	Billing costs \$2.20/sub./yr.	739,622	887,546
5)	Bad debts, 2%	322,740	774,580
6)	Sales commission, \$10/Subs. (ii)	3,361,920	1,210,290
7)	Commission to cable companies @ 2%	322,740	774,580
8)	Disconnect costs, 2.5%/mo. @ \$6 per.	605,142	726,174
		\$7.023 million	\$7.544 million

(i) This figure is variable. One and a half million dollars per channel based on "part-time" use (7 hours/day) and suitable negotiations with Telesat Canada. Full channel cost would be \$2 million, but a "shared channel" would likely be half his amount.

(ii) Includes advertising costs.

Additional descrambler purchases (mostly 2nd year):	\$1.089 to 4.370 million
Depreciation expense:	\$2.805 to 9.20 million

Programming Expenses

	Year 1	Subsequent Year
U.S. - 30% of total revenue	$4,841 million	$11.616 million
Canadian Fund - 20%	3.227 million	7.746 million

Total Costs and Expenses

Year 1:	$15.091 to $21.486 million
Subsequent years:	$29.711 to $36.106 million (extra decoder purchases, if not amortized, would bring this figure to between $30.80 million and $40.476 million in year 2).

(iii) *Revenue Epenses for Adding Smaller Cable Systems*

Capital Costs

Head end, satellite receive equipment - $29,000 (Amortized at 12% interest over 5 yrs - $7,685/annum.)

Descrambler equipment - $16.20 to $65/subscriber. Per annum - $6.30 to $26.10/subscriber.

Assuming 10% costs for bad debts, billing, etc., between $77.90 and $60.30 per year per subscriber remains after descrambler depreciation costs deducted. If 30% goes to royalties for U.S. programming and 20% to a Canadian production fund, a system would need 200-250 pay subscribers to meet depreciation cost of earth station and head-end equipment. This would put a limit at slightly over 1,000 subscribers.

There are 73 cable systems in English Canada with between 1,000 and 6,000 subscribers, with a total of 30,150 to 38,136 estimated pay-TV subscribers at system maturity. Total revenue added projections under (2) would increase that figure by about 10%.

Source: Matthews CATV list, projections from Appendix "B".

c) Pay Television in French Canada

(All systems over 6,000 subscribers)

Capital Costs

Master studio	$663,600
11 scrambler/modulator packages	$ 33,000
Descrambler systems:	
99,918 subscribers, upper estimate	$6.495 million
lower estimate	$1.619 million

Total Capital Cost: $2.316 to $7.192 million

Annual Depreciation Cost $ .816 to $2.717 million

Revenue

Year 1	Subsequent Years
$4.796 million (i)	$9.5 million

(i) Represent average over one year build-up period, assuming constant growth.

Expenses

1)	Master studio staff (1 studio only)	$ 80,000	
2)	Program purchase staff (#)	70,000	
3)	Microwave charges	500,000	
4)	Billing costs	212,000	
5)	Bad debts 2%	95,000	(190,000) (ii)
6)	Cable commission 2%	95,000	(190,000) (ii)
7)	Sales commissions	1,000,000	(300,000) (ii)
		$1,982,000	($1,472,000) (ii)

(i) Approximate number: assumes twice the cost of English due to problems in locating sources of French material and/or arranging dubbing.

(ii) Subsequent to year 1.

Program Expenses (35% assumed, including dubbing costs)

$1.679 million year 1; $3.325 million subsequent years.

Canadian Production Fund, 20%

$ .959 million year 1; $1.90 million subsequent years.

Total Expenses

Year 1: $4.426 million to $6.327 million

Subsequent years: $6.513 million to $9.414 million

N.B.: 1) French Canada penetration projections especially speculative;

2) assumption that increased costs (over equivalent English costs) for programs only 5% may be problematic. Dubbing costs, program availabilities, etc., could vary substantially from estimates.

d) Discussion

(i) Notes on Projections Used

The figures used for these projections were approximate. Certain costs have not been fully acounted for, although in general these were deemed to be reasonably unimportant (in affecting the magnitude of the final cost estimates). Moreover, some allowances (e.g., bad debts) may have been especially generous.

The $2.20 per subscriber per year billing cost was obtained from a brief submitted to the CRTC by Canadian Cablesystems et al. dated May 16, 1975. It is unlikely that this figure is low (rather, it is assumed that it may be slightly high).

The three year depreciation schedule for descrambler equipment may appear somewhat steep, but it was felt that pessimistic projections are somewhat in order, based partly on current reported experiences with converter technology. Studio equipment, earth receiving stations and other equipment (mostly head-end) was depreciated over five years. Interest was assumed to be 12% per annum. Some cable companies report paying interest charges of up to 14% per annum, but it is felt that these charges are more likely a cause of high debt to equity ratios and the small (less financially secure in the minds of bank managers) size of the companies. (A slight increase in interest costs, moreover, should not affect projections immensely.)

In all cases, high-quality technical delivery was assumed to be a prerequisite. It was, however, deemed possible to cut costs somewhat through the use of one-inch tape technology for simple record-playback purposes. One-inch colour machines, including necessary time-base correction and monitors, cost in the order of $50,000 - $65,000, while more sophisticated two-inch colour video tape recorders cost in the order of $100,000 to $150,000. One-inch colour tape machines are in use in a number of broadcast installations calling only for simple record and playback.

Three-quarter-inch video cassette machines were not considered suitable for the production of a picture with sufficient quality and reliability (consistent quality) to meet the requisite standards for a marketable pay television signal.

One further assumption is made concerning delivery quality, namely the time-delay assumption with respect to satellite distribution. We have assumed that a one hour difference between time zones can be accommodated and would not produce results unsatisfactory to viewers in different time zones. Even American commercial networks (ABC, CBS, NBC) operate simultaneously in two time zones -- Eastern and Central. Our assumption is that it would be possible to schedule Central, Eastern and Atlantic time simultaneously on one "channel" (in the case of Newfoundland, this would mean programming 1½ hours behind the time at which it is broadcast in the Eastern time zone). It would then be necessary to use an additional channel for the Western and Mountain time zones. A separate "Atlantic" grid to cover the two time zones of the Atlantic provinces would be possible but would entail additional expenses which have not been calculated here.

(ii) Descrambler Technology

The most important conclusion to be drawn from the projections is that the profitability of a pay television network, its ability to support Canadian production, and, to a lesser degree, its ability to finance the extension of service, is highly related to the type of descrambler technology employed. "Per-channel" technology was used for projections because per-program technology, while available, is much more expensive at the present time. Per-program technology would involve costs of perhaps $24 per subscriber, but unless pay penetration is high this could mean costs of about $100 for each "effective" pay subscriber. The rental of necessary telephone lines or the installation of two-way devices would add to this cost dramatically.

Estimated prices (including installation costs) range from $16.20 to $65.00. This range is substantial. While the American manufacturer of the more expensive decoder has made claims that the cheaper decoder produces a picture less than 100% faithful to the original (i.e., distorts the signal), the large number of cable operators employing the cheaper technology in the United States suggests this problem may not exist to a degree objectionable to viewers if it exists at all. The problem of different technological costs and the need to investigate and assess technology thoroughly prior to its widespread use (since such use would involve the investment of significant amounts of capital in the chosen technology) suggests the need for technological testing in an experimental situation prior to the establishment of a nation-wide network.

(iii) Nation-wide Versus Limited Delivery

The tentative conclusion of the cost and revenue projections is that a nation-wide delivery system employing one satellite channel for the first year and two in the second year would be economically feasible, or at least as feasible as a tape-distribution system across Canada covering a few major centres. Profit and/or loss ratios with respect to total revenue remain about the same as for tape distribution. If the less expensive decoder technology is employed, the satellite distribution system which was costed would be able to meet operating expenses, including 30% U.S. program costs and a 20% contribution to a Canadian production fund in the first year. What changes between the tape and satellite system is not so much the profit to total revenue ratio but the magnitude of projected investment costs (and, if more expensive technology is employed, debt in the first year).

The implications of the use of satellite channels for other national policy considerations, such as international spectrum and orbital space allocations and the relationship between short-term and long-term communication needs in Canada is referenced elsewhere in this report.

(iv) Total Costs At the Local Level

The following represents a rough estimate of the total annual cost, if descrambler hardware is to be owned by local cable operators, excluding bonuses, commissions and/or profits paid to the cable companies.

1) TEST-style decoder technology

Depreciation of decoders per annum - original cost includes installation - assume 3-year life, 12% interest	$ 6.30
Billing costs	2.20
Sales commissions - $10 per subscriber 1st year - assume 30% turnover annually - for next 4 years, avg. expenditure per subscriber is $10 x .3 = $3 - total avg. over 5 years = $22 - expressed as a per year avg., $4.40	4.40
Bad debts 2%	1.90
Disconnect costs (assume 2.5%/mo. @ $6/sub.)	2.00
Total per subscriber costs	$16.80
As percentage of annual fee	(17.5%)

2) Blonder-Tongue style decoder technology

Difference between annual depreciation cost of B/T equipment and TEST equipment $26.10 - 6.30 =	$19.80
Total cost per subscriber $16.80 - $19.80 =	$36.60
As percentage of annual fee	(38.13%)

3) Additional costs if head-end and satellite earth station costs added

(a) Total head-end satellite earth station costs	$29,000	
(b) Per annum cost (assume 5-year life, 12% interest)	7,685	
(c) Cost per subscriber:		
1,000 pay subscribers (system of about 5,000 basic cable subs)	$7.68	(8%)
10,000 pay subscribers (system of about 50,000 basic cable subs)	.76	(1%)

e) <u>Details of Specific Equipment Types Used for Projections</u>

(i) Descrambler/decoder Equipment

1) Blonder-Tongue scrambler-descrambler

This configuration is working in American cable systems and consists of a "scrambler" at the head-end of a cable system and a "descrambler" in homes receiving pay television.

Cost (in quantities over 4,000)	$ 50.10
Estimated Canadian cost	58.00
The scramble device for this system costs	$1,758.00
A compatible modulator, an additional	$1,164.00

The per-subscriber cost of these is reasonably insignificant for any cable system over a couple of thousand subscribers (but will be included for calculation under "head-end costs").

Estimated installation cost:

Because a "house visit" is necessitated, assume ½ hour per installation.
At $15/hour labour cost — $7.50

Total capital cost (at home) — $65.50
Amortized over 5 years - $17.36/yr/pay-sub
Amortized over 3 years - $26.10/yr/pay-sub
At 12%/annum interest

2) T.E.S.T.

A very inexpensive system in operation in 37 U.S. cable systems as of July 1976. T.E.S.T. Inc. claims a backlog of 150-160 head-ends as of this date.

Cost (discounted further if in quantities)	$7.50
Estimated Canadian cost	$8.70

The scramble device for this system costs — $800.
Modulator costs would probably be comparable to those for the Blonder-Tongue system.

Add: Installation ($7.50) Total cost — $16.20
Amortized over 3 years @ 12% — $ 6.30/year

3) Trap (filter) system

This involves transmitting the pay television signal, unscrambled, throughout the cable system but installing a "filter" outside those homes not paying for the extra service.

Cost of traps: $5 - $10.
Assuming 20% pay penetration, for each pay subscriber there must be up to 5 traps bought and installed (assuming 20% penetration occurs gradually).

3) Trap (filter) system (continued)

Installation cost per trap:

(a) Assume 5 traps can be installed per hour (reports from Paul Kegan Pay-TV Newsletter, June 14, 1975 suggest 6 - 9 per man-hour are realistic figures).

(b) Assume labour cost of $15/hour/person.

Cost per trap - $3.

Total cost of trap $8 - $13.

Total cost per pay subscriber - $40 - $65.
(Amortized over 3 years - $15.94 - $25.90)
(Amortized over 5 years - $10.60 - $17.23)
At 12% per annum interest

4) Delta-Benco Cascade system

This is a more sophisticated system which would be usable to a certain degree for a pay-per-program operation. It would have to be installed for each cable subscriber, but offers the advantage that:

1) disconnects and reconnects are done electronically in seconds as opposed to costing $5-10 for a service person;

2) it would cut the cable system's non-pay operating costs because "basic service" can be connected or disconnected in seconds as well;

3) it would enhance non-pay "basic service" security (cutting losses for basic service, increasing profitability);

4) security for pay itself is very high.

Cost of device is $80-110 (lower figure for orders over 10,000)

Estimated cost of installation - $15.
Each device services 4 subscribers. It is likely, however, that all system subscribers would have to be hooked in.

A sector decoder is needed for every 1,023 devices, adding an average of $1 to the cost (per device).

Head-end equipment is somewhat more expensive than for other systems.

Total cost per device	$ 96.
Total cost per subscriber	24.
Amortized over 5 years @ 12%	6.36/yr.
Total cost per pay subscriber (@ 20% pen.)	120.
Amortized over 5 years @ 12%	31.80/yr.

Because of the high capital costs involved, this system was not used for any of the cost projections for pay television.

(ii) *Network Equipment*

Master studio:

2 AVR-2 2" high band video tape machines (Ampex)	$248,000
2 VT-100 1" helical video tape machines with time-base correction	130,000
1 IVC Telecine chain, including:	
2 16mm. projectors	
2 slide projectors	
multiplexer, colour camera	125,000
1 video switcher (production switcher)	50,000
	553,000
Add: 20% installation costs	110,600
	$663,600.

Time delay or other playback studio:

3 Ampex VT-100 1" video tape machines	$195,000
1 slide projector/camera	25,000
1 video switcher	30,000
	250,000
Add: 20% installation costs	50,000
	$300,000.

(iii) *Network Distribution Equipment*

Satellite search station (if used)	$ 26,000
Scrambler/modulator for cable system head-end: (depends on system used)	
General scramble/descramble system	$ 3,000
or	
Trap (filter) system	$ 1,500

Appendix "E"

POTENTIAL PROPORTION OF CANADIAN CONTENT

a) Assumed Costs of Canadian Production

Two figures were used to estimate the costs of Canadian-produced programs for a pay television network. The first figure, $40,000 per hour, represents reasonably inexpensive programming which might result from a network geared towards low-budget programming and perhaps a high proportion of "in house" production. Whether such programming would be acceptable under regulatory conditions requiring the non-duplication of broadcast formats and styles is a question not assessed here.

Figures comparing actual expenditures for various types of Canadian broadcast programming are shown below:

Table XXIX: Cost of Programs for Broadcast Networks

Program	Network	Length	Cost	Source
Braden Beat	Global	1 hour	$17,000	1
Witness to Yesterday	Global	½ hour	7,100	1
Human Journey	CTV	1 hour	80,000-120,000	2
Police Surgeon	CTV	1 hour	65,000	1
Performance	CBC	1 hour	80,000-120,000	2
Excuse My French	CTV	1 hour	40,000-60,000	2
Swiss Family Robinson	CTV	1 hour	65,000	1
W5	CTV	1 hour	30,000	1
Beachcombers	CBC	1 hour	40,000-60,000	2

Sources: 1) "A Study of the Independent Program Industry", Hugh Edmunds, April 1976 (pp. 50-56)

2) Brief to CRTC by Canadian Cablesystems *et al.*, June 1975.

A second, probably more reasonable figure of $100,000 per hour was also used. This represents the current cost of some of the more expensive programming on the CBC and CTV television networks. If programming is to be repeated on the network, it would have to be of the nature of more expensive programming. Some of the less expensive concert productions and special shows, given liberal allowances for royalties and performer fees, would fall under this category, as would lower-budget Canadian films. This amount would, of course, come nowhere near covering the cost of high-budget Canadian films ($750,000 to $2 million for a two hour production). It must be assumed, therefore, that revenues outside the pay network are available for such films, on roughly a 5:1 or even a 10:1 ratio. Alternatively, high degrees of investment by the network (e.g., 50% of total investment) in Canadian high-budget feature films must be expected eventually to generate returns to cover most of the original cost investment to enable the network to purchase additional programming. These "returns" might occur only after a delay of a year or two, so that for the first few years, if percentage of gross revenue is the only guide for involvement in Canadian programming, large sums of money tied up as capital investments in film projects not bringing immediate returns would reduce the proportion of network time devoted to Canadian programming.

b) First Year of Operation

TABLE XXX: Estimated Percentage of Canadian Content: First Year of Operation

Canadian Revenue Percentage of Gross	Funds Avail. for Canadian Production (i)	Assumed Cost of Programming (per hour)	Total Annual Hours of Canadian Production	Hours Per Week (ii)	Percentage Canadian Content
15%	$2.4 million	a) $ 40,000	60	3.5	7.2%
		b) $100,000	24	1.4	2.7%
20%	$3.2 million	a) $ 40,000	80	4.6	9.6%
		b) $100,000	32	1.8	3.8%
25%	$4.0 million	a) $ 40,000	100	5.8	12.1%
		b) $100,000	40	2.3	4.8%

(i) Funds available based on $8 per month fee, using projections from Appendix "C" for penetration for a nation-wide system (i.e., satellite distribution, availability in all major centres assumed).

(ii) Assuming three repeats per program.

c) Subsequent Years of Operation

Table XXXI: Estimated Percentage of Canadian Content: Subsequent Years of Operation (i)

Canadian Revenue Percentage	Funds Avail. for Canadian Production (ii)	Assumed Cost of Programming	Total Hrs./Yr. Canadian	Hours Per Week Canadian (iii)	% of Canadian Content
15%	$5.7 million	$ 40,000/hr.	143	8.2	17.1%
		$100,000/hr.	57	3.3	6.9
20%	$7.6 million	$ 40,000/hr.	190	11.0	22.8
		$100,000/hr.	76	4.4	9.1
25%	$9.5 million	$ 40,000/hr.	237	13.7	28.5
		$100,000/hr.	95	5.5	11.5

(i) Optimistic penetration assumptions, Canada-wide distribution system available to all cable systems (English) over 6,000 subscribers.

(ii) Based on projected figures from Appendix "B" (in turn based on model evolved in Appendix "D").

(iii) Assuming three repeats per program.

Assumptions used for above tables:

1) 48 hours of programming per week on network;
2) each program is repeated three times (meaning, a total of 16 hours per week of original programming).

d) Notes on Canadian Content Calculations

Even by raising the proportion of gross revenue spent on Canadian production to 25%, the proportion of Canadian programming surpasses 20% only under a very low estimate ($40,000 per hour) for programming costs.

Roughly half of the total revenue available under a nation-wide distribution system would be available if a system covering Toronto, Hamilton and Vancouver were operated. This would reduce the percentages and hour figures in the above tables by roughly one-half.

e) Effect of 15% Expenditure for Pay Television System in French Canada

Assuming comparable program costs for French-Canadian programs, the percentages of indigenous Quebecois programming which could be put on a pay television network given a 15% expenditure on Canadian production would be much more limited than those projected above for English Canada. With a 15% expenditure, only $1.43 million per annum would be available at system maturity (using a $9.5 million total revenue figure as calculated in Appendix "D"). This would provide funds for only fourteen hours of original production per annum (at $100,000 per hour) or, at the most, forty-two hours of lower-budget production. This would result in "French-Canadian content" percentages of between 1.7 and 4.3% (between slightly less than one hour weekly, counting repeats, and about two hours weekly).

The less favourable profitability projections for a French-Canadian network (see Appendix "D") make it even less likely that more than 15% for French-Canadian (as opposed to European French-language and North American dubbed programming) could be achieved. More important, it would appear much less likely that French-Canadian films would be as "saleable" on the North American market as English-Canadian films, so that the "multiplier effect" for both original investment and revenues would not be as strongly operative as in the case of English Canada. The consequences for "per hour" costs are obvious: indigenous French-language programming for the French-Canadian pay television network would effectively cost more than English-Canadian programming for the English-language network.

It appears likely that significant percentages of Canadian content could be achieved on a French-language system only through the use of dubbed English-Canadian material, a possibility which may or may not be regarded as politically acceptable.

f) The Imposition of a Content Quota

The imposition of a content quota as a regulatory rule or as part of the mandate of a publicly-created pay television network might be expected to change considerably the type and nature of Canadian programming provided on the network. Opportunities might be provided for film-makers with lower-budget films to gain access to a network which otherwise might have limited itself (if operated as a private system free of regulatory guidelines other than a percentage expenditure requirement for Canadian production) to high-cost productions (see Chapter 5). If, rather than using the sale of Canadian programs to U.S. pay television distributors as a mechanism to reduce U.S. program costs, the pay television network sought to maximize returns to the Canadian production fund, it is possible that the average cost per program would drop below $100,000 as "returns" (profits from U.S. and foreign sales) are counted against overall investment costs. A higher proportion of inexpensive video production (e.g., children's programs) might also be used. These possibilities may be regarded as either good or bad.

In any event, if 55% is regarded as the most a network can afford to pay for programming in total, and if the proportion of costs for U.S. programming drops in accordance with the replacement of U.S. programs with Canadian ones, Canadian content percentages possible, given a very low assumption of $40,000 per hour programming costs, are shown in the following table.

Table XXXII: Possible Canadian Content Percentages (i)

Cdn. Revenue %	Funds Avail. for Cdn. Production	Total No. Hrs./Yr. @$40,000	Hrs./Wk. (3 Repeats)	Cdn. Content %	U.S. (ii) Expend. %	Total (iii) Programming Costs
15%	$ 5.7 million	143	8.2	17.1	24.9	39.9%
20%	7.6 million	190	11.0	22.8	22.5	42.5
25%	9.5 million	237	13.7	28.5	21.5	46.5
30%	11.4 million	285	16.4	34.3	19.7	49.7
35%	13.3 million	333	19.2	40.0	18.0	53.0

(i) Above projections based on optimistic penetration projections for a satellite-distribution system available to all major cable systems in Canada (English).

(ii) The use of 100% American programming is assumed to cost 30% of gross revenue. The percentages in this column represent the proportionate expenditures allowing for the fact that U.S. content purchases would be reduced as Canadian content is used.

(iii) As a percentage of gross revenue.

As can be seen in the above table, if low average per hour costs are assumed, and if it can be expected that a well-run network could sustain 55% programming expenditures (as opposed to 40% currently projected in some proposals), it is possible that Canadian content could rise at system maturity (i.e., after a number of years) to 40%. If higher per hour costs are assumed, however, the same does not hold, as shown in Table XXXIII.

Table XXXIII: Possible Canadian Content Percentages (High Per Hour Costs)

Cdn. Revenue %	Canadian Content (% of hrs.)	U.S. Expenditures (% of gross)	Total Program Costs (% of gross)
15%	6.9	27.9	42.9%
20	9.1	27.2	47.2
25	11.5	26.6	51.6
30	13.7	25.9	55.9

The per hour cost is seen as a function of a number of things, including regulatory action.

g) Implications for Minority Programming

The introduction of a Canadian content quota, coupled with regulations designed to minimize the degree of direct repetition of existing broadcast-style programming, might be expected to facilitate initiative on the part of the pay television network to service special minorities (probably during non prime-time hours). Special educational, children's and cultural programs of a reasonably low cost nature might thus be available. Presumably, a pay television operator would be less concerned about the attractiveness of a particular program and more concerned about the overall attractiveness of the "package"--one or two high-popularity "blockbusters" in an extreme case, might serve to generate desired penetration rates. The "economics" of commercial television where the audience size of every time slot is important may not be quite the same for pay television. It is difficult, however, to assess whether this difference between the dispositions of pay network operators and commercial broadcast network operations will actually occur, especially given the precedent set by existing broadcast operations and the variable nature of managerial personalities involved.

There is a major problem with the use of pay television to provide minority services, especially under a per-channel configuration (or under any configuration which assesses a basic charge for system connection regardless of use). What has in the past been a minor problem for community cable channel programmers becomes amplified in the case of pay television. The 30% of many communities excluded because of non-subscription to basic cable service in the case of the community channel becomes more like 90% in the case of pay television. The use of pay television to satisfy minority needs must be regarded as highly problematic.

It would appear that the problem of minority services might be better addressed in the context of: 1) the revenue-generating capacities of pay television or even cable television in general; and 2) the distribution capabilities of free television networks in Canada. The possibility of coupling the two is discussed in more detail in the text of this report, especially in Chapter 8.

Appendix "F"

ANALYSIS OF THREE MONTHS OF HBO PROGRAMMING

The following tables analyse three months of HBO programming (June, July, August, 1976). There are three tables for each month. Table A indicates the number of new events shown each week in each program category. No analysis has been made of the carryover of programming from month to month. The number of new events, especially in the first week of each month, is therefore slightly higher than it would have been had this analysis been performed. Table B indicates the number of events in each category which are repeated from previous weeks. Because no analysis has been made of the month to month carryover, the column for the first week in each month has no entries. Table C indicates the total number of showings of all the events in each category.

The last item attached provides information about the type of movies shown each month. The categories are Children's or General, Parental Guidance, Restricted and Information Not Available. Many of those for which the information is not available are foreign-language films either dubbed or sub-titled or English-language "classics".

All information in this study has been acquired from "HBO ON AIR", HBO's programming guide. There are a few instances where HBO has listed two possible programs for a single slot. In each case, the first program listed is a sports event and the second possibility a movie shown earlier in the month. In compiling these tables, such entries have been treated as sports events. Even if all the sports events had been replaced with the second alternative, there are not enough instances to alter the programming balance significantly.

Table XXXIV: June Programming

Table XXXIV-A: Number of New Events Each Week

	Week One June 1-7	Week Two June 8-14	Week Three June 15-21	Week Four June 22-28	Week Five June 29-30	Total
Specials[1]	1	3	3	2	--	9
Sports[2]	1	2	4	1	2	10
Children's Movies	4	3	1	1	1	10
English-Language Movies	14	6	4	5	1	30
Foreign-Language Movies[3]	1	1	1	1	1	5
Series	3	1	2	1	1	8
Educational	1	1	1	2	1	6
Cartoons	-	-	-	-	-	-
Promos	-	-	-	-	-	-
Total	25	17	16	13	7	78

1. Specials directly specifically towards children are included in the general category.
2. Sports events have been treated as non-repeating even when origngating from the same location except where obviously a repeat.
3. Dubbed movies are included under the foreign-language movie category.

Table XXXIV-B: Number of Events Repeated from Previous Weeks[i]

	Week One[1] June 1-7	Week Two June 8-14	Week Three June 15-21	Week Four June 22-28	Week Five June 20-30	Total
Specials	-	-	2	4	2	8
Sports	-	-	-	-	-	-
Children's Movies	-	1	1	-	-	2
English-Language Movies	-	6	8	6	3	23
Foreign-Language Movies	-	-	-	-	-	-
Series	-	1	1	1	1	4
Educational	-	-	-	-	-	-
Cartoons	-	-	-	-	-	-
Promos	-	-	-	-	-	-
Total	-	8	12	11	6	37

1) The study has not included an analysis of the month to month carry over of programming. The first week of each month, therefore, has no entries in the table examining number of repeated events.

(i) June programming information from HBO Program Guide

Table XXXIV-C: <u>Number of Showings of Events in Each Category</u>(i)

	Week One June 1-7	Week Two June 8-14	Week Three June 15-21	Week Four June 22-28	Week Five June 29-30	Total
Specials	1	4	9	8	2	24
Sports	1	2	4	1	2	10
Children's Movies	8	7	4	2	1	22
English-Language Movies	34	24	20	30	8	116
Foreign-Language Movies	1	1	1	1	1	5
Series	5	4	5	4	2	20
Educational	3	3	3	2	1	12
Cartoons	-	-	-	-	-	-
Promos	-	-	-	-	-	-
Total	53	45	46	48	17	209

(i) June programming information from HBO Program Guide.

Table XXXV: July Programming

Table XXXV-A: Number of New Events Each Week(i)

	Week One July 1-7	Week Two July 8-14	Week Three July 14-21	Week Four July 22-28	Week Five July 20-31	Total
Specials 1	5	3	1	-	1	10
Sports2	4	2	1	2	1	10
Children's Movies	2	1	1	1	-	5
English-Language Movies	11	6	5	2	1	25
Foreign-Language Movies3	-	1	1	2	-	4
Series	3 (episodes)	1	1	1	-	6
Educational	2	1	1	1	-	5
Cartoons	-	-	-	-	-	-
Promos	-	-	-	1	-	1
Total	27	15	11	10	3	66

1) Specials directed specifically towards children are included in the general category.
2) Sports events have been treated as non-repeating even when originating from the same location, except where obviously a repeat.
3) Dubbed movies are included under the foreign-language movie category.

(i) July programming information from HBO Program Guide

Table XXXV-B: Number of Events Repeated from Previous Weeks(i)

	Week One[1] July 1-7	Week Two July 8-14	Week Three July 15-21	Week Four July 22-28	Week Five July 29-31	Total
Specials	-	2	2	4	2	10
Sports	-	-	-	-	-	-
Children's Movies	-	1	1	1	1	4
English-Language Movies	-	7	7	10	7	31
Foreign-Language Movies	-	-	-	-	1	1
Series	-	2	2	2	2	8
Educational	-	1	1	1	1	4
Cartoons	-	-	-	-	-	-
Promos	-	-	-	-	1	1
Total	-	13	13	18	15	59

1) The study has not included an analysis of the month to month carryover of programming. The first week of each month, therefore, has no entries in the table examining number of repeated events.

(i) July programming information from HBO Program Guide.

Table XXXV-C: Number of Showings of Events in Each Category[(i)]

	Week One July 1-7	Week Two July 8-14	Week Three July 15-21	Week Four July 22-28	Week Five July 29-31	Total
Specials	8	7	10	7	3	35
Sports	4	2	1	2	1	10
Children's Movies	4	3	4	4	1	16
English-Language Movies	32	29	28	24	11	124
Foreign-Language Movies	-	1	1	4	1	7
Series	4	4	4	4	2	18
Educational	3	3	3	3	2	14
Cartoons	-	-	-	-	-	-
Promos	-	-	-	1	1	2
Total	55	49	51	49	22	226

(i) July programming information from HBO Program Guide.

Table XXXVI: August Programming

Table XXXVI-A: Number of New Events Each Week (i)

	Week One Aug 1-7	Week Two Aug 8-14	Week Three Aug 15-21	Week Four Aug 22-28	Week Five Aug 29-31	Total
Specials	1	3	-	-	-	4
Sports [1]	2	6	3	7	3	21
Children's Movies	1	1	1	1	1	5
English-Language Movies	12	4	4	1	-	21
Foreign-Language Movies [2]	2	2	1	1	-	6
Series	2 (episodes)	1	1	1	-	5
Educational	1	1	1	1	1	5
Cartoons	1	1	1	-	-	3
Promos	-	-	-	1	1	2
Total	22	19	12	13	6	72

1) Sports events have been treated as non-repeating even when originating from the same source except where obviously a repeat.
2) Dubbed movies are included under the foreign-language movie category.

(i) August programming information from HBO Program Guide.

Table XXXVI-B: Number of Events Repeated from Previous Weeks(i)

	Week One[1] Aug 1-7	Week Two Aug 8-14	Week Three Aug 15-21	Week Four Aug 22-28	Week Five Aug 29-31	Total
Specials	-	1	1	-	-	2
Sports	-	-	-	-	1	1
Children's Movies	-	-	-	-	-	-
English-Language Movies	-	6	5	7	6	24
Foreign-Language Movies	-	-	1	1	1	3
Series	-	1	1	1	1	4
Educational	-	-	-	-	-	-
Cartoons	-	1	2	1	1	5
Promos	-	-	-	-	1	1
Total	-	9	10	10	11	40

1) The study has not included an analysis of the month to month carryover of programming. The first week of each month, therefore, has no entries in the table examining number of repeated events.

(i) August programming information from HBO Program Guide

Table XXXVI-C: Number of Showings of Events in Each Category[i]

	Week One Aug 1-7	Week Two Aug 8-14	Week Three Aug 15-21	Week Four Aug 22-28	Week Five Aug 29-31	Total
Specials	2	6	2	1	-	11
Sports	2	6	3	7	4	22
Children's Movies	6	4	4	4	1	19
English-Language Movies	27	21	26	23	11	108
Foreign-Language Movies	4	4	3	4	2	17
Series	4	4	4	4	1	17
Educational	3	3	3	3	1	13
Cartoons	1	5	4	1	1	12
Promos	-	-	-	3	1	4
Total	49	53	49	50	22	223

(i) August programming information from HBO Program Guide.

Categories of Movies Shown on HBO

June

Number of Separate Events		Number of Showings	
Total Number of Movies	45	Total Number of Showings	143
General or Children's	17	General or Children's	62
Parental Guidance	11	Parental Guidance	38
Restricted	8	Restricted	25
Information Not Available	9	Information Not Available	18

July

Number of Separate Events		Number of Showings	
Total Number of Movies	34	Total Number of Showings	147
General or Children's	9	General or Children's	30
Parental Guidance	8	Parental Guidance	47
Restricted	9	Restricted	38
Information Not Available	8	Information Not Available	32

August

Number of Separate Events		Number of Showings	
Total Number of Movies	32	Total Number of Showings	144
General or Children's	6	General or Children's	25
Parental Guidance	10	Parental Guidance	55
Restricted	5	Restricted	13
Information Not Available	11	Information Not Available	51

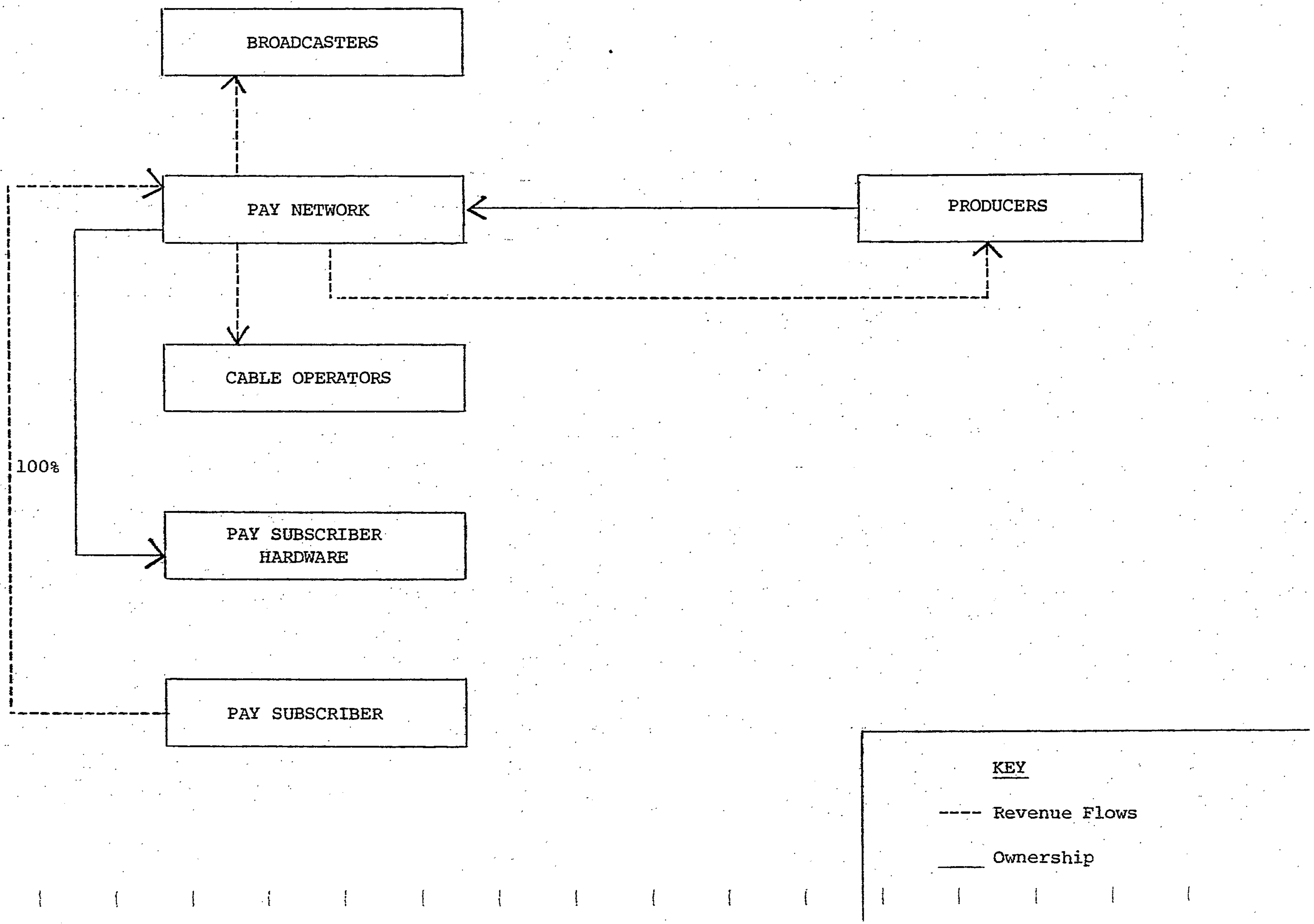
Appendix "G"

DIAGRAMMATIC REPRESENTATIONS OF SELECTED PROPOSALS

THE FOLLOWING PAGES CONTAIN DIAGRAMS OF THOSE PROSPECTS FOR PAY TELEVISION STRUCTURE FOR WHICH SUFFICIENT DATA WAS AVAILABLE TO PERMIT REPRESENTATION OF THEIR OWNDERSHIP AND/OR REVENUE DISTRIBUTION SYSTEMS.

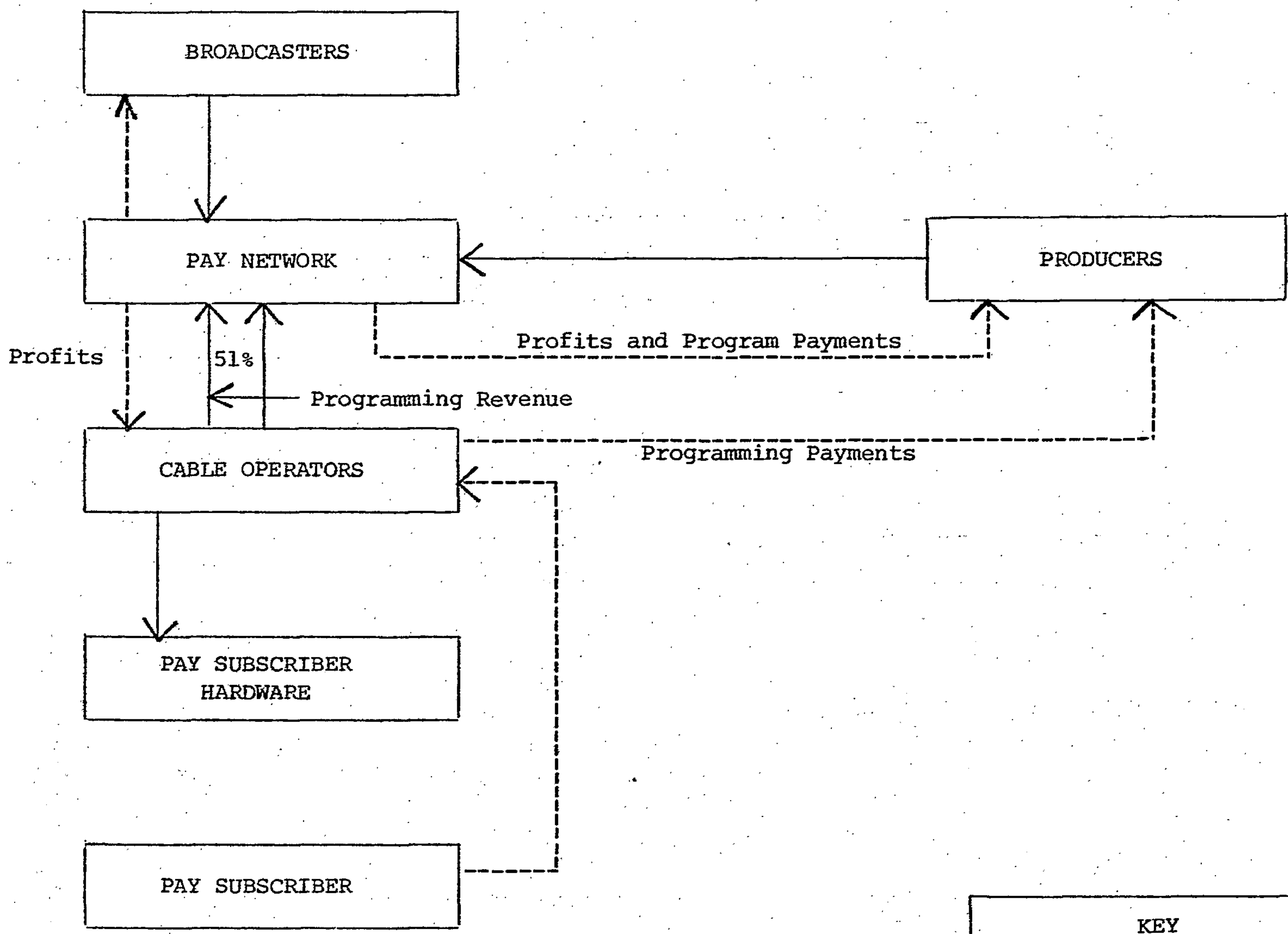
CRTC PROPOSED SYSTEM (1975)

FIGURE 1



CCTA PROPOSED SYSTEM (1975)

FIGURE 2



KEY

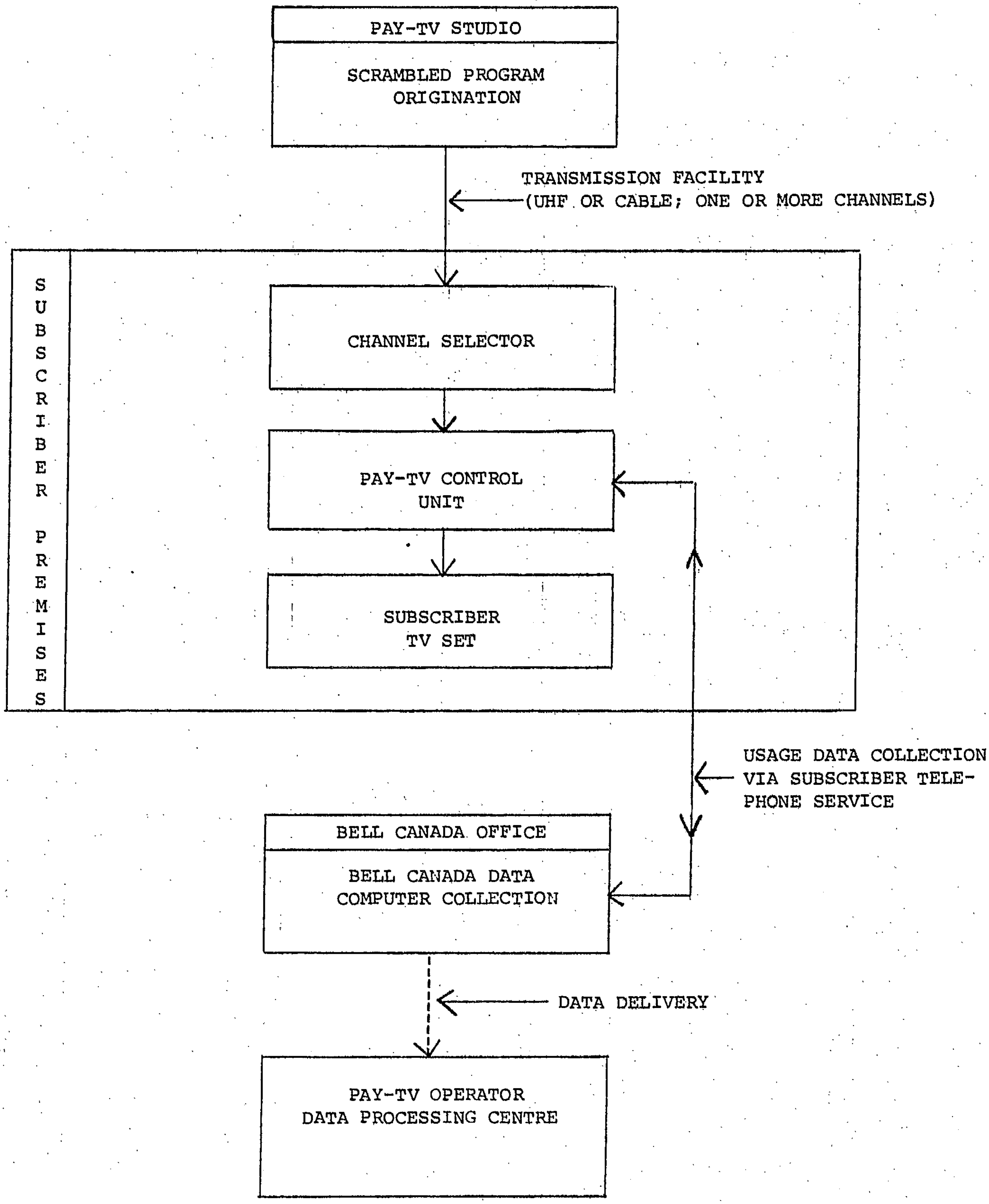
---- Revenue Flows

____ Ownership

Source: CCTA Brief to CRTC, June, 1975

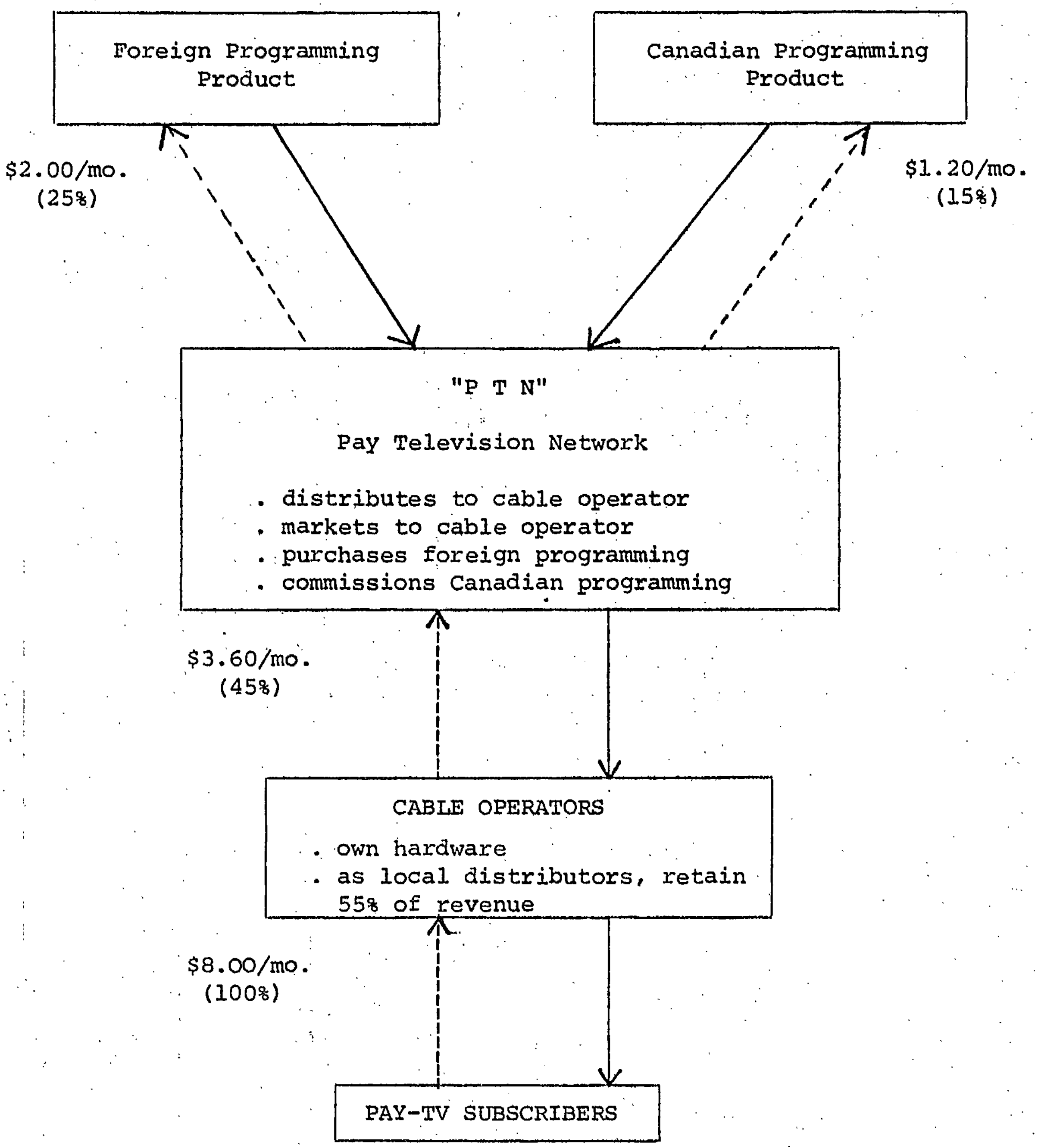
FIGURE 3

BLOCK DIAGRAM OF BELL CANADA PAY-TV DELIVERY SYSTEM



Source: Bell Canada Brief to CRTC, June 1975.

"PTN" MODEL FOR PAY TELEVISION STRUCTURE (AUGUST, 1976) FIGURE 4

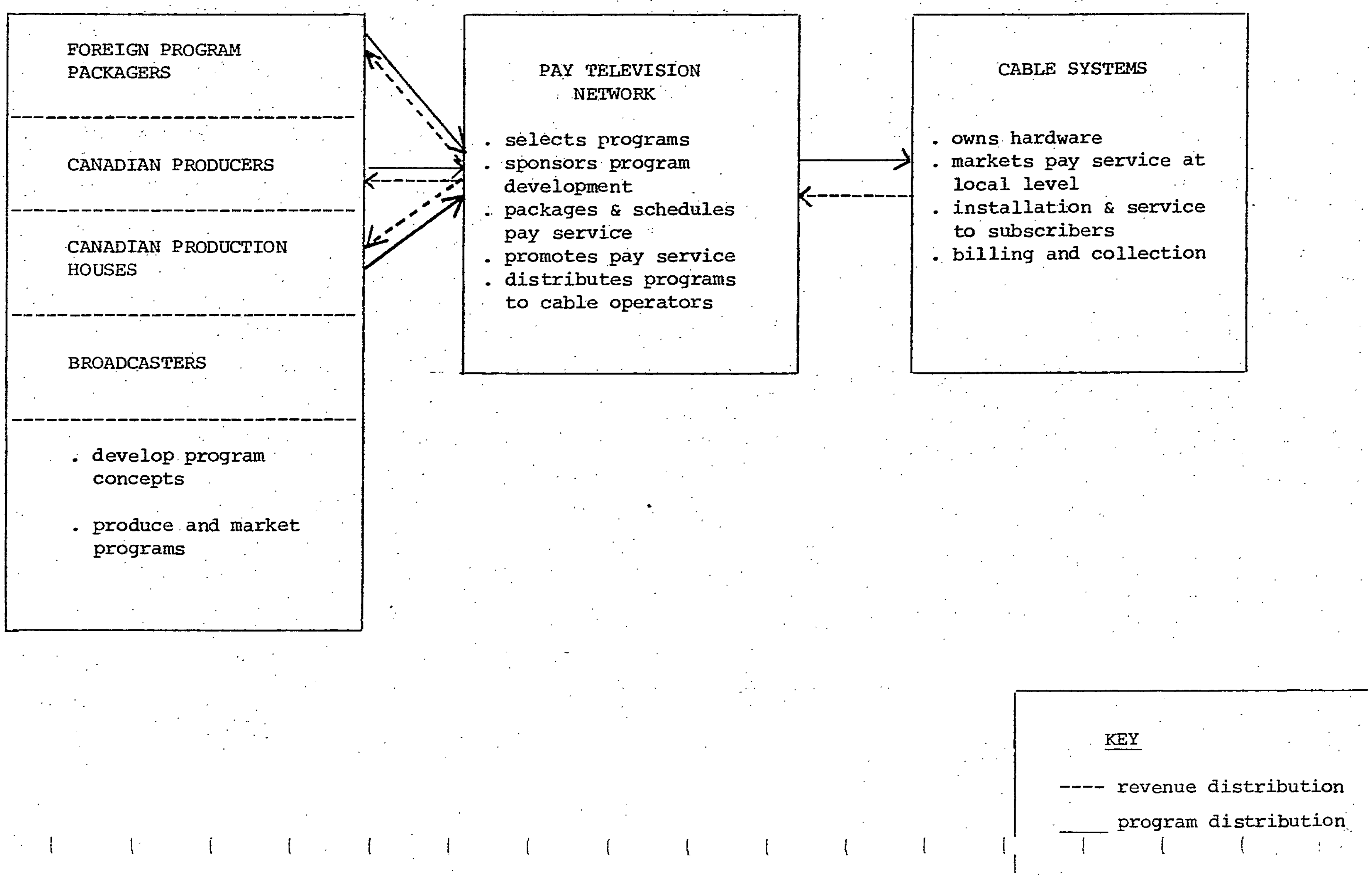


KEY

---- revenue distribution

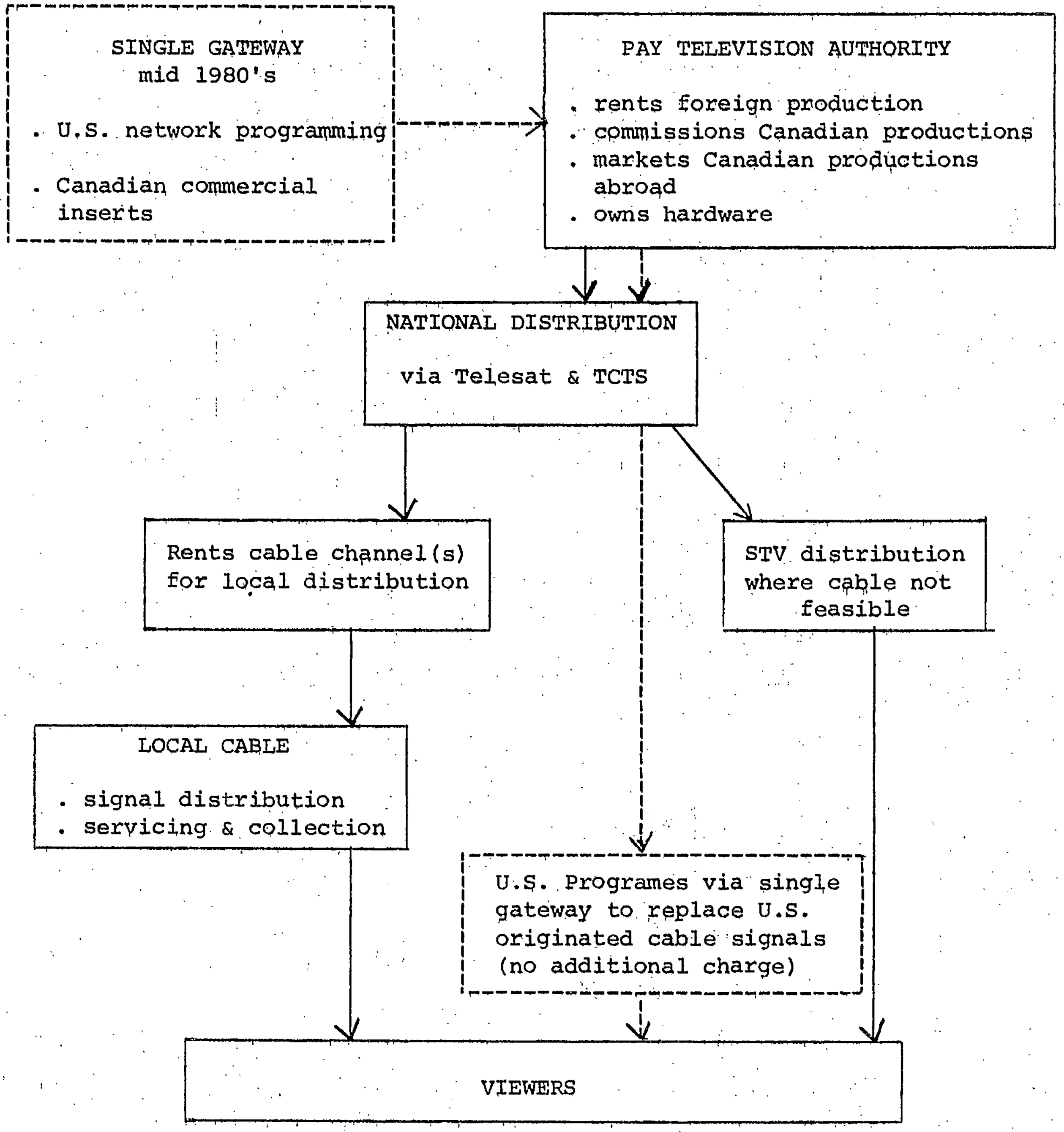
____ program distribution

CANADIAN CABLESYSTEMS/PREMIER/ROGERS PAY-TV PROPOSAL (1975) FIGURE 5



RECOMMENDED STRUCTURE FOR PAY TELEVISION FIGURE 6

a) PROPOSED DELIVERY SCHEDULE



KEY

---- U.S. signal, imported throu
"signal getaway"

____ Pay televisional signal(s)

RECOMMENDED STRUCTURE FOR PAY TELEVISION FIGURE 7

b) REVENUE DISTRIBUTION