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ABSTRACT

This report examines the changing relationship between public television programming and program distribution methods and considers whether there is a need to change the design and packaging of some public television programming to respond to changes in the way the audience receives its programming as interactive cable systems, videocassettes, videodisc, and microcomputers proliferate. Background information covers developments in program packaging and distribution and explores design concepts that permit the adaptation of programming for multiple markets, such as modularization in which a project is initially planned with the intent of producing two or more products in varying formats. Legal, economic, and policy issues that may have an impact upon program packaging for the new distribution environment are also outlined. Emphasis is on the use of public television materials both to serve educational and cultural needs and to extend the reach of public broadcasting. Appended materials include story outlines and treatments for a hypothetical package including television programs, microcomputer software, prerecorded videocassettes, and videodisc, all created from a single core production; a plan for station organization for modular projects; and a discussion of negotiation for multi-market television production. (LMM)

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Modularization And Packaging Of Public Television Programs

A Report Prepared For

Office of Policy Development and Planning
Corporation for Public Broadcasting

Prepared by

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PREFACE

The mission of public broadcasting includes a primary goal of facilitating the development and production of excellent creative and innovative programs of a cultural, informational or educational nature, for broadcast to a national audience. Public broadcasting also adheres to a goal of serving diverse audiences for their distinct needs. This study addresses an opportunity for public broadcasting to respond to changes in the way the audience receives its programming as the enterprise faces the need for innovative approaches to reach a broader audience with financial resources that are growing more slowly.

The communications environment has changed as the American public receives an increasing share of its programming from "secondary" distribution paths, such as cable services, videocassettes, interactive video or supplementary personal computer software. The use of technologies which allow these new paths of distribution represents an opportunity for public broadcasting to reach new audiences or the same audiences with a targeted programming approach that meets the diverse needs of that audience. Furthermore, with proper planning, this modularization of programming can be accomplished with efficient use of limited resources, by planning and designing a production from the start with its secondary distribution possibilities in mind.

This study, by Dr. John Carey, describes the modularization process as a way to create more programs at lower unit costs in the service of educational or cultural objectives. The report is a general overview of considerations which relate to programming for multiple uses. The intended audience for this report consists of public television stations and licensees who are not currently involved in the secondary markets, yet who want to understand the implications of those markets in order to design occasional productions around potential new uses.

Richard Grefe
Director
Policy Development and Planning
Corporation for Public Broadcasting

I. INTRODUCTION

The purpose of this report is to examine the changing relationship between public television programming and the means to distribute programming. As interactive cable systems, video cassettes, videodiscs and personal computers proliferate, is there a need to change the way some public television programming is designed and packaged? Typically, those involved in the creation of programming focus most of their attention upon content, audience needs and funding of the project. Distribution or, more specifically, the implications which can be drawn from an analysis of the distribution chain for program design and packaging generally receives secondary attention. However, the proliferation of ways in which programming can be distributed as well as complex issues of audience access, revenue streams and media characteristics of new telecommunications technologies have created a need to reexamine how public television content is designed, packaged and distributed.

This report has three general goals: (1) to inform readers who have not followed closely developments in program packaging and distribution; (2) to explore design concepts that permit the adaptation of programming for multiple markets; and, (3) to outline legal, economic and policy issues that may have an impact upon program packaging for the new distribution environment. The treatment of new technologies and public television programming is couched within the framework of

public broadcasting's unique mission. It emphasizes the use of public television materials to serve educational and cultural needs as well as to extend the reach of public broadcasting. At the same time, public television stations face the same "productivity" issues as their commercial counterparts. How can they produce more high quality programming for the same budget or the same level of programming for a reduced budget? New forms of programming design and multiple market uses of program materials do not appear to represent a major new source of revenue for public television stations. However, the new distribution environment may offer a modest level of supplementary revenue to stations while helping them to meet their mandate of public service.

This report was prepared with contributions by and assistance from many individuals. Thomas Gherardi, Harold Kappes and Mitchell Moss served as consultants to the project and contributed legal, design and policy components respectively. Our project officer, Richard Grefe, guided our work throughout and contributed substantively to the body of the report. In addition, a number of individuals read an earlier progress report and provided helpful comments and suggestions. They included Fred Cohen, Peter Dirr, Martin Elton, Dana Kadison and Steven Symonds. However, all opinions expressed and any errors that remain are the responsibility of the principal author.

II. THE CHANGING DISTRIBUTION ENVIRONMENT

In the past, a major public television series was often broadcast on PBS, then sold or leased to a few "secondary" distribution paths, eg, foreign broadcast markets and video cassettes for schools. While a text or study guide has often accompanied such programming, relatively few attempts have been made to adapt program materials for these other markets. The reasons advanced for not adapting more programming have included inadequate revenue potential from the secondary markets and the fact that the intended audience for the program was reached through PBS broadcast. Further, the secondary distribution media shared similar characteristics with broadcast TV, from a production and design perspective. A producer could add educational wraparound materials to a general audience program and thus render it more useful in classrooms. However, there was little point in adding interactive video or supplementary personal computer software since few schools or consumers were equipped to use the materials.

More recently, some of the so-called "secondary" markets have begun to grow rapidly. More than seven percent of US homes possess a video cassette recorder and more than five percent have access to a personal computer. Penetration of both of these technologies in homes is projected to exceed 20 percent before the end of the decade. The penetration of these technologies in schools is far higher.[1]

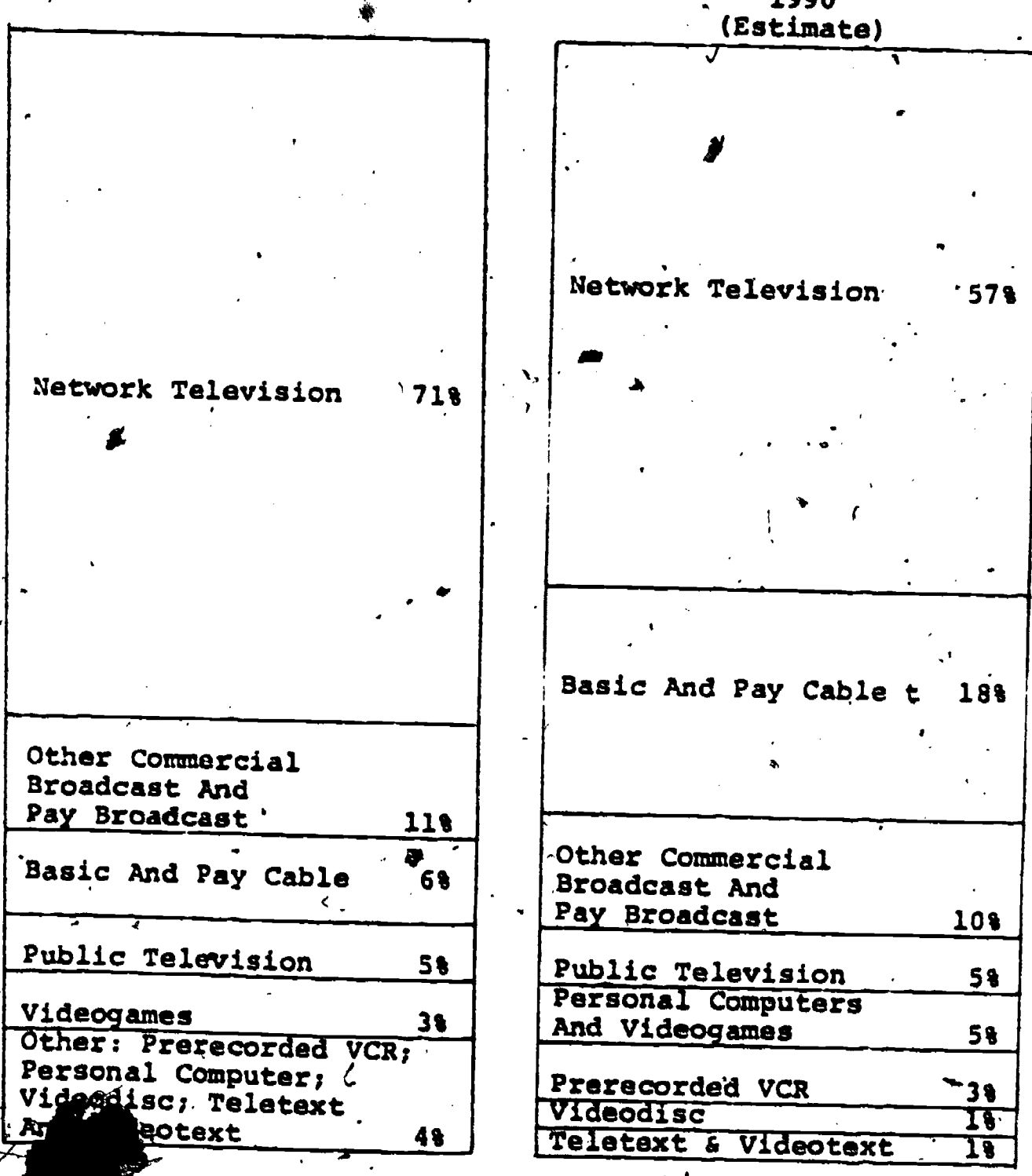
1. See John Carey and Mitchell Moss, A Review of Telecommunication Technologies and Public Broadcasting. Washington DC: Corporation for Public Broadcasting, Office of Policy Development and Planning, 1983, pp 45-62.

Technologies such as cable television, interactive cable television, video cassette recorders, personal computers, teletext and videotext are likely to compete actively with broadcast television for audiences by the end of the decade. Figure II-1 shows this competition in graphical terms. It compares aggregate viewing of alternative video content in 1983; projects current viewing and purchasing trends over the next several years; and estimates the aggregate viewing of video content in 1990. Currently, network television enjoys a very high share of household viewing time (more than 35 of the 49 hours that an average household views each week) plus nearly universal penetration of television receivers in US households. By contrast, videodiscs are watched on average for eight and one half hours per week in those households with a videodisc player (less than one percent of US households).

However, the commercial networks' share of television viewing time has been declining, particularly in households that have acquired new technologies. Further, the competing technologies are growing in penetration while the commercial networks cannot increase their penetration. Thus, if current trends continue, the commercial networks appear likely to lose a moderate share of household viewing time. Figure II-1 suggests that public television viewing, expressed as a percentage of all household video viewing, is likely to remain constant. However, this represents two off-setting trends. It appears that public television viewing will be aided by

Figure II-1

HOUSEHOLD VIDEO VIEWING: AGGREGATE FOR ALL US HOUSEHOLDS
(in percentage of time spent with each source)



Source: Greystone Communications

increased cable television penetration. That is, cable will bring a stronger signal into many homes which currently receive a weak UHF signal from the nearest public television station. At the same time, increased household uses of personal computers, videodiscs, interactive cable, etc. are likely to occupy time that might otherwise be spent watching public television.

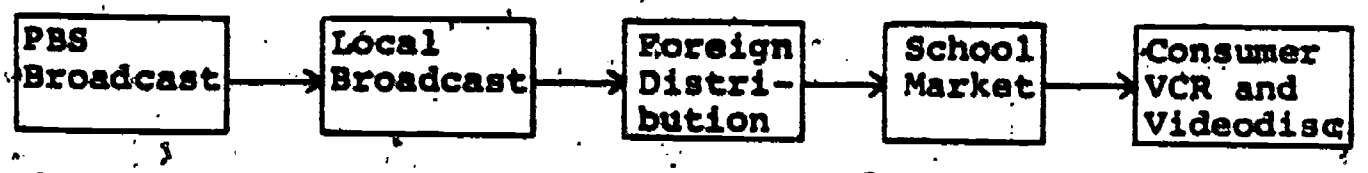
Some of the telecommunication technologies, eg, cable, offer ways for public television to extend its audience. Other technologies offer new means by which to communicate with audiences, eg, interactive cable allows an audience to participate in the programming. And, these technologies and means of distribution may offer a potential for public broadcasting to generate additional audiences or revenues.

The new technologies and distribution systems in the US give rise to an important question for public broadcasting. Can public television programs be adapted in a creative way, at moderate cost, to take full advantage of these technologies? Further, can these new distribution paths help public broadcasting to better serve its mandate?

The current system of distribution for public television programming may be illustrated in a simple diagram, Figure II-2. It should be noted that not every program is fully distributed along the chain and, further, the order of distribution to secondary markets may vary.

Figure II-2

AN ILLUSTRATIVE DIAGRAM OF PUBLIC TELEVISION PROGRAM DISTRIBUTION



Source: Greystone Communications

This distribution chain may be compared to the more complex distribution for theatrical motion pictures in Figure II-3. Here too, it should be noted that there are many variations from the general pattern below. There are several relevant issues that affect a model of distribution. These include the number of runs or showings permitted at each point in the distribution chain; the clearance time between each market or distribution medium; the order of distribution (eg, video cassette release has moved to an earlier position in the chain during

Figure II-3

AN ILLUSTRATIVE DIAGRAM OF THEATRICAL MOTION PICTURE DISTRIBUTION

Source: Greystone Communications

the past two years); and revenue sharing at each point.

It is important to note that the distribution chains illustrated in Figures II-2 and II-3 are likely to involve the same product each step along the way, with minimal enhancements if any, eg, a study guide may accompany a 16mm film distributed to schools, and programs are dubbed in appropriate languages for foreign markets.

This attempt to reuse the same product again and again may lead to some problems in the near future:

- A person may be expected to view or buy the same product at more than one point along the distribution chain (eg, subscribe to a pay cable channel and purchase a videodisc of the same material that appeared on cable). Why should a consumer pay more than once for the same product?
- There is little recognition that audiences may differ radically at points along the chain in terms of size, social characteristics, and programming wants or needs. Some links in the distribution chain involve general mass audiences while others reach specialized narrowcast audiences.
- The expanding distribution system has a voracious appetite for programming. Where will it come from?

The schematic of distribution has another dimension. This relates to the characteristics and capabilities of the technology at each link in distribution chain. These include:

- Audio capability (mono, stereo and multitrack);
- Interactive capabilities (in what ways, if at all, can viewers respond to programming?);

- Segmentation of programming, ie, can it be organized into chapters or must it be viewed in a straight linear session; and
- Intermittent viewing, ie, can a person watch part of the program, stop, and return to the program an hour later?

Few television programs make use of the specific characteristics of media along the distribution path. Producers, typically, design the material for the first medium in which it will be distributed. For example, educational television programs seldom utilize interactive questions and answers, though the programs may subsequently be distributed on two-way cable with an interactive capability. Until recently, interactive components in educational programming made little sense: fewer than 100,000 homes were linked to an interactive cable system in mid 1982. However, more than 20 percent of cable households are projected to have interactive capability by the end of the decade.[2]

The problems and opportunities presented by the emerging distribution system may lead to new forms of programming "packages." For example, a television program may be created much like a product line of office computers, with different versions for alternative media and audiences along the distribution chain. The product line of public television material might contain enhancements for videocassettes, interactive cable, videodiscs, personal computers and teletext. It is important to note that the "product line"

2. John Carey and Mitchell Moss, op cit, p 32.

analogy has limitations. Issues of distribution rights and production costs for television programming are distinct from manufacturing and distribution costs for office computers.

Program packages that contain enhanced versions of the original product offer a potential to induce audiences to watch a program more than once, eg, if a videodisc version of a made-for-television movie has enhancements that were never seen in the broadcast version. They also permit the producer to more narrowly target programming for specific audiences who are likely to encounter a program at point A in the distribution chain, but not point B. Still other forms of program packaging may have promotional goals. For example, the popular music "videos" are produced by record companies and offered at no cost or a small fee to cable operators and broadcast networks in order to promote the sale of records. Some of the new distribution technologies may offer modest potential to public broadcasting in terms of revenues but strong opportunities to demonstrate the creative skill and commitment to excellence. of public television stations. In turn, this promotional m effort may attract new viewers to public television.

At the same time, program packages raise a number of critical questions for public broadcasting. These relate, in part, to design, aggregation of production costs within a public television context, and potential revenue or value from additional "products" in the program package, as well as important public broadcasting policy issues.

III. CONTENT PACKAGING AND THE MARKETPLACE

The concept of adapting content for a given market, pattern of viewing or means of distribution is far from new. In the 1930s and 1940s movie serials such as Flash Gordon represented an adaptation to the characteristics of movie viewing, ie, regular attendance at the movie house each week.[3]

In addition, many forms of content have been modified or reedited for distribution in a new market. For example, many American "made-for-TV" movies are released theatrically in Europe. Often, extra scenes or alternative scenes are shot and edited into the movie to appeal to the European market and theatrical viewing patterns. In the US, R-rated films are often edited for television or local movie house distribution. Further, consumer products and spin-off programs have been developed from popular movies and TV programs, eg, toys based upon Sesame Street characters and documentaries on "The Making Of _____," a theatrical motion picture. However, the process of adaptation, modification and spin-offs is becoming more intricate as the distribution environment grows in complexity.

A. Technology Development And Audience Preferences

It is useful to review briefly some of the audience

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3. In 1946, 44 million people went to the movies each week. By contrast, an average of 14 million people attended movies weekly during 1978-82. Thus, movie attendance has shifted from a regular pattern of going to the movies and choosing among those movies available to a pattern of going to the movies only when a given movie attracts a person. Similarly, the inexpensive B movie in the 1940s and 1950s was, in part, a marketing tool that enabled the theatre owner to offer an "evening" of entertainment.

characteristics and content preferences in relation to new technologies, as well as changing audience patterns for more traditional means of distribution. These in turn can inform us about the design of programming in the decade ahead.

1. Pay Per View Cable

To date, pay per view cable has been generally disappointing and unprofitable. While a few championship fights have achieved a 25 to 30 percent penetration of all subscribers in selected markets and major movies such as Star Wars have achieved a 5 to 15 percent penetration, concerts, broadway plays and regular first-run movies have fared poorly: often less than three percent penetration. There are a few factors that have contributed to the problems in pay per view. First, most cable systems do not yet have addressable decoders. Thus, a subscriber to a pay per view event must go through a cumbersome process of physically obtaining a special device (a "trap") and installing it on their cable line in order to receive the programming. There is a high cost associated with this process from a cable operator's perspective and inconvenience from a consumer's perspective. In addition, the high costs of promotion and the distributor's share of revenues have combined to reduce profits for cable operators.

Pay per view revenues may improve as cable penetration grows and a greater percentage of subscribers receive addressable decoders. However, some argue that the costs of promotion and product will render pay per view a difficult market for anything

less than a Star Wars calibre movie or major sporting events such as championship fights, the World Series and the Super Bowl.

The attention given to pay per view has focused primarily on the high and middle level product (in terms of total potential audience). However, a "low end" product in terms of production costs and subscriber penetration has done reasonably well in the few markets where it has been offered. Warner Amex reports that pay per view telecourses and stand-alone lessons have been well received, eg, How To Prepare Your Tax Return and SAT preparation courses.[4] This low end market is quite distinct from the Star Wars market. Here, the cost of product, promotion and distribution via interactive cable appear to offer moderate profit potential and low risk for cable operators. This suggests that interest may grow for instructional programming on cable and, further, that relationships may develop between public television groups and cable operators. One example is a joint venture between Warner Communications and the Eastern Educational Network to produce "How To Borrow Money." It is designed as a pay per view telecourse in markets where Warner Amex's interactive cable systems are in place, and as a public television telecourse in other areas.

A recent market trial by Cox Cable in San Diego provided further useful information about the potential audience for

4. Vivien Horner, representing Warner Amex Cable, in an address at New York University, October 1982.

pay per view programming. Cox conducted a series of price tests and found considerable resistance to program material priced at six dollars or higher. Resistance diminished considerably when the price of a pay per view program was reduced to four dollars.

The Cox Cable and Warner Amex findings are far from definitive. They suggest that pay per view cable may evolve in a complex manner, with a relatively small number of blockbuster events (that generate the bulk of revenues) complemented by many low-priced events (that generate a small share of revenues). Educational programming may have a place in the pay per view market, but much remains to be learned about its attractiveness for consumers.

2. Video Cassette Recorders And Video Games

In some cases, there is a shift in content appeal as the penetration of a technology grows. Video cassettes and video games illustrate this phenomenon. Video cassette recorders (VCRs) grew from 0 to 3 percent penetration in the US largely through the attractiveness of pornography. As much as 70 percent of video cassette sales and rentals prior to 1980 involved pornography. By the end of 1982, VCR penetration in the US reached approximately five percent of households. In 1982, less than 40 percent of video cassette sales and rentals involved pornography.[5] Further, while movies still captured

5. These estimates are from a variety of industry sources, including the Electronic Industry Association, Leisure Time Electronics, and Variety.

the bulk of video cassette sales and rentals, programs other than movies represented approximately 12 percent of the market in 1982 (within this category, exercise tapes were the most popular). In 1983, the VCR market has continued a trend of development that may offer opportunities for public broadcasting to serve its mission and reach audiences with materials that are adapted from public television programming. In the first half of 1983, there was a shift in the ratio of cassette rentals to sales from 95:5 (1982 ratio) to 70:30. Further, there was a continuation of the growth in rental and sales of VCR titles other than movies (15 percent of rentals and 30 percent of sales). Much of this non-movie content is similar to public television content, eg, educational programming, children's programming and consumer "How To" programming such as "How To Use Your Personal Computer" and "Jane Fonda's Pregnancy And Birth Recovery."

Some of the growth in video cassette sales appears to be related to price testing by major distributors. That is, in dropping the price of a video cassette below 40 dollars, sales increased. At the same time, a few expensive cassettes and cassette series with educational content are being introduced and tested. For example, Sony has introduced a series of eight half hour cassettes on "Speed Learning." The series is priced at 200 dollars.

The recent shift in US sales and rentals of video cassettes is not a total surprise. In Europe, notably in England, VCR

penetration is much higher than in the US: 16 percent of households in England owned or rented a VCR by the end of 1982. Accompanying this higher penetration is a greater diversity of content interests. While movies are the overwhelming choice for most purchases and rentals, pornography accounts for only 10 percent of the market. Further, children's, educational and cultural content collectively account for approximately 20 percent of sales and rentals. While it may be argued that cultural factors account for some of the differences between the US and British markets, the trend of greater attractiveness for nonmovie nonpornography content with higher penetration of VCRs has been present in both countries.

The maturation of the video game market in the US and its potential merger with the personal computer market may also be accompanied by a shift in content preferences among consumers. By the end of 1982, approximately 12 percent of US households owned a video game player. These households spent over one billion dollars in purchasing 60 million game cartridges in 1982. Nearly all of these games involved shooting an enemy, eating a monster or hitting an electronic ball. In 1983, it appears that some cracks in this content wall are emerging. Atari and Children's Computer Workshop have released a series of games based upon Sesame Street characters, eg, Cookie Monster Munch, Oscar's Trash Race and Grover's Music Maker, each with educational objectives. Other groups, eg, Epyx, Milliken Publishing and Spinnaker, have also developed educational video

games for introduction during the 1983 Christmas season. In addition, several enhanced game units have been introduced that permit a wider variety of software to be used. These enhanced game units are becoming indistinguishable from personal computers. Indeed, by 1985 the distinction between a personal computer and a video game player may disappear. For public broadcasters, the development of enhanced video game players along with the extraordinary growth of personal computers may provide an opportunity to create software that is adapted from public television program content. Indeed, at the Summer 1983 Consumer Electronics Show, the major forum for displaying new video game software, many of the new games represented spin-offs from commercial television programs.

However, a potential opportunity to create educational software raises important production and organizational questions: can those who have been involved in the development of public television programming create computer software? Sections VIII and IX of this report address these issues.

3. Videodisc.

Videodisc is still in a very early stage of market development. By the end of 1982, fewer than 1 percent of US households owned a videodisc player. However, the growth of videodisc players has not been as disastrous as some analysts have suggested. For example, videodisc players have sold at a comparable rate to video cassette players in their first three years of availability. Moreover, a typical owner of a videodisc player purchases 25 discs per year and uses the videodisc p[redacted]

for 8 to 9 hours per week.[6]

Thus far, videodisc sales have been movies overwhelmingly. If video cassettes can be used as a model (which is uncertain), then a nonmovie videodisc market may begin when penetration reaches 3 to 4 percent of US households. This is not to suggest that nonmovie videodiscs can be profitable at that level of penetration, since costs of production, manufacturing and promotion must be weighed along with the revenues from a small share of a small market.[7] Nonetheless, in 1983 a few nonmovie videodiscs with original material have been introduced in the consumer market. These included two interactive mystery programs in which a viewer tries to discover a murderer, and a history quiz videodisc.

A good deal of educational material has been produced for the laser videodisc and directed towards secondary and higher education. In addition, videodiscs have been created for video arcades as well as car showrooms (point of sales demonstrations) and amusement parks such as Disneyworld (to provide information). Each of these applications has involved a specialized user group and, often, a special configuration of equipment that is required to play the videodisc.

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6. These data are based on RCA research, as reported in Multichannel News, June 13, 1983, p 38.
7. Currently, CED disc controls the consumer market. CBS will manufacture discs for any group, at a price of 8 dollars per disc, including the hard plastic jacket. However, they require very large production runs.

4. Theatrical Motion Pictures

The US produces approximately 120 major motion pictures per year (this figure excludes pornographic films, made-for-TV films, and full length documentaries). The demand for motion picture products beyond theatrical distribution, eg, video cassettes, videodisc, and pay cable, far exceeds the available product. However, the economics of theatrical motion picture production, measured against revenues from theatrical rentals plus extended distribution via the new technologies, do not currently support a larger industry.

The movie business has fluctuated dramatically over the years. In the 1930s, attendance at movies accompanied by a benign regulatory environment supported a very large industry. However, after World War II, television began to compete for the movie audience. In addition, the Justice Department ruled that studios had to divest their ownership of major theatre chains. Further, tax laws led many studio directors to form their own production companies. The film industry struggled through a difficult decade. By the mid 1970s, the movie business was once again flourishing. There were several reasons for this. An average movie cost 5 million dollars to produce in the mid 1970s. Network television sales often covered 3.5 million dollars of the cost, with one million dollars more for syndication. In addition, movies were a reasonable tax shelter for investors and exhibitors paid large unrefundable guarantees for the product. These elements created a healthy economic climate for production. However, by the late 1970s,

the cost of an average movie rose to 10 million dollars, while marketing and promotion for a film rose to eight million dollars. In addition, tax shelters were tightened and made-for-TV movies began to compete with theatrical movies for network television budgets. Thus, while the demand for motion pictures - in cable, VCR and videodisc - is greater than ever, the potential revenue from these sources do not yet provide justification for a large output.

5. Television Networks And Independent Stations

In the first quarter of 1983, network HUTs - total households viewing at any given time - was down 17 percent from 1982, according to A.C. Nielsen. This loss of audience is generally attributed to cable, pay television, video games and VCR. Public television has benefited from this trend, with overall audience share increasing to 5.3 percent. In England, where cable is not so significant a factor yet, broadcast television lost 12 percent of its audience in 1982. The loss in England is generally attributed to VCR and video games. These general patterns, accompanied by individual events, eg, major HBO movies frequently outdraw the networks in subscriber homes, suggest that new technologies are attracting some of the audience from network television. Figure II-1 on page five of this report attempted to plot the commercial networks' audience share in 1990 if current trends continue.

Independent broadcast stations are experiencing a curious period of expansion. The total number of independent stations

grew from 82 in 1970 to 197 in 1983. In many ways, independent stations are at a strong disadvantage compared to network affiliates. The independents pay more for older products and fewer runs. They have compensated for this by producing more news and local programming. In addition, some independents have begun to carry programs from satellite services such as Cable News Network and Financial News Network. Thus, independent broadcast stations represent yet another potential distribution path for programming, much like VCR, videodisc and cable.

IV. DISTRIBUTION: LESSONS FROM COMMERCIAL GROUPS

A. Film Distribution And Packaging.

The film industry is beginning to resemble the 19th century whaling industry in which every part of the product is exploited for revenue: whale meat for food; whale oil for lamps; and whale bone for corsets. For example, the rights to E.T. were licensed to 14 separate companies for the development and sale of products that had no direct relation to a motion picture. The license fees generated 15 million dollars in 1982 alone.

The film industry is a particularly useful case study since it faced and survived threats from new technology, ie, television, thirty years ago. Further, the complexity of film financing and revenue streams has led to much analysis of the licensing, packaging and general extended uses of film products. While public television does function with the same profit motive, its public service mission must be undertaken within a sound financial framework. In building a sound financial framework, some lessons can be drawn from the successes and failures of the film industry.

Table IV-1 outlines the revenue streams for a successful motion picture. It is clear that film rentals for theatrical distribution constitute the bulk of revenues. At the same time, the theatrical market is becoming more problematic. This relates, first, to changes in theatres themselves. Between

Table IV-1

REVENUE STREAMS FOR KRAMER VS. KRAMER
(in millions of dollars)

Revenue Source	Amount
Film Rentals Worldwide	100
Network Television Sales	15
Pay Television Sales	3
Syndication	4
Video Cassettes and Discs	0.25

Source: Wall Street Journal, February 18, 1982

1978 and 1982, the number of "screens" increased by 2,000 while the total number of theatres declined. That is, many theatres were divided into twins or quads - creating more total screens - while other theatres went out of business. Twin theatres and quads increase choice for a viewer but they reduce screen size and, consequently, reduce an important distinction between theatre viewing and home viewing of movies, ie, screen size. At the same time, the age of regular movie attendees has been declining. Currently, the typical audience in local theatres is 14 to 24 years old. This age group is highly vulnerable to competition from alternative distribution technologies as well as general fads.

Many film industry analysts argue that between 1985 and 1987, nontheatrical revenues for many films will surpass revenues from theatrical rentals.[8] Indeed, in several

8. A few spectacular movie hits such as E.T. will derive greater income from theatrical rentals for a period beyond 1987.

European countries with high VCR penetration, nontheatrical revenues exceed theatrical rentals for most films. Anticipating this trend, distributors have begun to release video cassettes and videodiscs of a movie 90 days after theatrical release. This "window" will likely shrink over the next three years until cassettes, discs and theatrical releases are simultaneous or, under some conditions, cassette and disc release precede theatrical release. Further, cassette and disc rights will become more important in negotiating theatrical distribution rights. In Europe, most theatrical distributors will not accept a film unless cassette rights are included in the package.

The film industry in the 1980s is thus experiencing the following changes:

- Timing and duration of windows between release in each technology;
- Order of release in each technology;
- Licensing in nonfilm products (increasing); and
- Revenue mix from alternative distribution media (over time, a smaller percentage from theatrical rental).

In addition, the changing distribution environment has added some new wrinkles to an old Hollywood face: the sequel.

1. Sequels

Traditionally, movie sequels have represented relatively inexpensive imitations of a successful movie, with a potential

to draw between 50 and 60 percent as much revenue as the original movie. However, the sequel phenomenon has changed in the past decade. Star Trek II generated more revenue than Star Trek I, and Rocky III was far more successful than Rocky I or Rocky II.[9] At the same time, the cost of sequels now exceeds the original. This relates, in part, to the increased demands by actors and directors after the original has been a hit. Further, the sequel production is generally an entirely new project: relatively few have attempted to aggregate costs.

One major reason for the proliferation of sequels is the opportunity they present to presell cable and television rights to a movie that follows an original hit. For example, the original Rocky was produced with no presale of cable or broadcast television rights; Rocky II presold cable and broadcast rights for 21 million dollars; and Rocky III presold cable and broadcast rights for 28 million dollars.

More recently, a number of studios have begun to plan made-for-TV movie sequels to theatrical films. The made-for-TV sequel will not be shown in US theatres, though they may be released in Europe as theatricals. This scenario will require more careful management of production costs, in keeping with a sequel revenue stream that will not include theatrical rentals in the US market.

The principle of sequel productions may be applied to public television. Indeed, one can regard a second season

9. Some sequels have been extraordinary failures. More American Graffiti cost four times as much as the original but generated only 15 percent of the original in box office revenue.

of NOVA as a sequel to a successful first season. A sequel in a public broadcasting environment faces the same cost issues as a sequel for a theatrical film, ie, the sequel, as an entirely new production, is likely to cost as much or more than the original. Moreover, revenue from the licensing of the program in other markets often reverts to the producer, with little or no revenue returning to public broadcasting. In this way, the economics of sequel productions do not function well in a public broadcasting context.

B. Cable Distribution And Packaging

From a public broadcasting perspective, cable may be divided into four programming categories: local basic cable; regional or national satellite services; pay channels; and pay per view. Local basic cable offers few opportunities for distributing programs and generating revenue. If a group provides production services to a local cable operator, eg, in fulfillment of a franchise provision, some revenue may be realized. Similarly, many public television stations use cable as part of a distribution system in the provision of educational services, under a contract with a state agency. However, local cable operators often expect to be paid for carrying local programs, rather than pay for the programming.

National satellite services such as Nickelodeon and Cable Health Network attracted a good deal of attention, initially, among independent public broadcasting producers who viewed these services as an outlet for their materials.

However, national satellite services can provide only limited revenue to a producer: 1 thousand to 30 thousand dollars per hour for what they deem to be high quality programming. This level of payment can support very few original productions for the specific satellite service. Indeed, an important lesson to emerge from early experiences with national satellite services is that a producer should not expect to recover costs solely from the sale of a program to cable. Cable can however serve as an important component in a revenue mix.

HBO and a few additional large pay channels currently pay approximately 3 million dollars for a major motion picture (in some instances the fee is tied to the number of subscribers). While theatrical films receive the greatest amount of attention on such services, they constitute less than half of the total content. Thus, a substantial market does exist for nonmovies on pay cable channels. Some of this product is purchased from foreign television. However, much is produced explicitly for the pay cable service provider. Indeed, HBO has become a very active producer and co-producer of programming. As a producer, HBO is expected to invest 750 million dollars in the next several years. Most of these productions will be co-ventures in which HBO pays for 20 to 50 percent of production costs. Movie budgets are expected to average 3 to 4 million dollars, while episodes in a major series are expected to average 500 to 600 thousand dollars each. A number of the made-for-pay channel movies have been co-ventures with foreign producers, who release

them theatrically in Europe.

The audience for pay cable channels differs from theatrical movie audiences. Whereas the theatrical audience is characterized by 14 to 24 year olds who are single, pay cable channel audiences are characterized by 20 to 45 year old married individuals with children. This is reflected to some degree in the content and pacing of made-for-pay cable movies, many of which resemble public television programming (eg, The Terry Fox Story).

Pay per view cable, discussed in Section III of this report, has experienced mixed results with major motion pictures. Cable operators argue that pay per view is affected negatively by the six month window between theatrical release and pay per view (they seek a six week window). Further, cable operators argue that the distributor's share of gross (65 to 85 percent) does not provide them (the cable operator) with sufficient revenue given the high costs of promotion and delivering the program. These difficulties may help to focus more attention on the low end of the pay per view market, ie, telecourses and "How To" lessons, which have relevance to public broadcasting.

In summary, cable distribution offers relatively small revenues for producers of materials other than major movies. For public broadcasting, this implies that some opportunities may exist for, (1) simple resale of selected programming to cable; (2) development of efficient production methods that can generate programming at low cost for cable; and (3) joint ventures with commercial groups in which new programming is

created and distributed along several paths (one of which is cable). Working within these parameters, a few public television stations and education groups have begun to actively explore cable. For example, WTTW's Enterprise Division is producing "Music America Live" at a cost of 25 thousand dollars per episode, a cost that has been covered by presales to Home Theatre Network Plus, a pay cable network. In addition, the show will be syndicated.

Another group, Med-Video, has reedited an educational series produced originally by the American Medical Association and offered for credit. The reedited series will be distributed on Cable Health Network, with ads, and aimed at practicing physicians who seek continuing education. Coast Telecourses and CBS provide an example of a third approach to the cable market: joint ventures. Their 3 million dollar joint venture will create a series of telecourses (eg, introductory courses in Anthropology, Photography, Cooking, and Personal Computers). All of the courses will offer college credit. Coast Telecourses has retained the rights for sale to colleges and universities. CBS holds the rights for sale to cable, industry and foreign markets. Further, some alternative versions of the programs will be created for specific new technologies, eg, interactive cable.

C. Network Television, Independent Stations And Syndication

While a great deal of public attention has been focusing upon interactive cable, video cassettes and videodisc, the

mundane world of syndication and independent stations has been changing dramatically. In addition to the increased demand for syndicated products by the growing number of independent stations as well as cable operators, three trends have emerged:

- Ad hoc networks;
- Advertiser initiated ventures; and
- Station consortia.

These trends have emerged in a context of trouble for independent stations: fewer first-run syndicated shows were available; movies were distributed to pay cable, then the networks - with independents third in line (whereas previously they were second in line after theatrical release); and they were required to pay more for fewer runs of older products.[10]

In response to this environment, independents have begun to produce more local programming, while outside groups have begun to develop new programs for the independent market. For example, advertiser initiated ventures have increased sharply, from 30 million dollars invested in 1972 to 300 million dollars in 1982. Currently, more than 100 advertiser supported series are available to independents on a barter or cash and barter basis.

In addition, groups such as the Fourth Network Consortium (Taft Broadcasting, Chris Craft, Gaylord, and the Tribune Co.)

10. For example, WDSU in New Orleans cites a 1982 offer by distributors of five thousand dollars per title for four runs over three years versus offers in 1981 of three thousand dollars per title for six suns over five years.

and Operation Prime Time, a nonprofit consortium of 100 independent broadcast stations, have emerged to purchase or fund projects and distribute them. The Fourth Network Consortium states that it will pay up to 1.5 million dollars for syndication rights to movies not purchased by the networks, on a basis of four runs in twelve months. Similarly, Operation Prime Time has stated its intent to fund feature programming at a lvel of 1 to 1.5 million dollars per hour. Operation Prime Time may also co-produce some projects with HBO. At a local level, many regional consortia of independent stations have formed to produce talk shows and game shows.

The emergence of these networks may provide some lessons for public broadcasting. These groups responded to changing market conditions and a need for programming. Moreover, they aggregated resources to create or purchase programming. Finally, they put aside some competitive "boundary markers" that existed previously in order to develop programming which served each member's interests.

V. PUBLIC TELEVISION PRODUCTION AND DISTRIBUTION PATTERNS

In examining the new distribution environment for programming, it is useful to begin by outlining some existing patterns of public television production and distribution to the education market. Three elements are particularly noteworthy: who produces programming; what is the content; and how is programming distributed after broadcast on public television stations. Table V-1 outlines the sources for programming.

Table V-1

SOURCES OF PUBLIC TELEVISION PROGRAMMING
(1980-81)

Source	Percentage Of All Programs
Public Television Organizations And Stations	52.2
Independents	22.1
Foreign And Co-Productions	9.1
Local	7.7
Other	4.4
Commercial	2.7
Consortium	1.8
	100.0

Solomon Katzman and Natan Katzman, Public Television Programming Content by Category, Corporation for Public Broadcasting Computer Information Services.

Table V-1 reveals that a large percentage of public television programming is produced by public television stations and organizations. It should be noted however that four stations account for more than 25 percent of all programming, and one independent group (Children's Television Workshop) accounts for more than 15 percent of programming. This may have implications for the extended uses of programs in the new distribution environment. That is, the "packaging" of a large national public television series may involve several distribution media, whereas a local educational program might receive simpler enhancements for use as a video cassette-based telecourse in nearby state community colleges or an interactive cable television system in the same city as the local public television station.

An examination of public television content categories in Table V-2 suggests that much programming lends itself to extended uses. However, it appears that a smaller proportion of programming, eg, major cultural and entertainment projects, lends itself to comprehensive repackaging and distribution, while a larger proportion might lend itself to simple enhancements for selected markets. For example, a series such as This Old House appears to be well suited for video cassette distribution and the growing interest in "How To" content by those who purchase and rent cassettes.

Table V-2.

PUBLIC TELEVISION CONTENT BY PROGRAM CATEGORY
(1980-81)

Category	Percentage Of Hours
Information/Skills	23.6
Cultural	22.1
Sesame St./Electric Company	16.1
Instructional TV	13.2
News/Public Affairs	11.0
Children's	8.7
Other	5.3
	100.0

Source: Solomon Katzman and Natan Katzman, Public Television Program Content By Category, Corporation for Public Broadcasting, Computer Information Services.

Sections II and III of this report discussed characteristics of the consumer marketplace and the potential receptivity to public television materials through new distribution channels. It is useful as well to examine the current education, health and business environments in terms of available equipment, usage characteristics and content preferences. Tables V-3, V-4 and V-5 provide relevant data.

Table V-3

AUDIO VISUAL EQUIPMENT IN PLACE

Type Of Equipment	(percentage of each group owning one or more) School	College	Library	Business	Health
16mm Projector	96	93	98	89	92
Video Cassette Recorder	95	96	72	95	90
Videodisc Player	9	11	14	13	23

Source: PBS Video, Audio Visual Market Study, February 1982

Table V-4

AUDIO VISUAL DELIVERY SYSTEMS USED

Delivery System	(percentage of each group using system) School	College	Library	Business	Health
In-room	81	95	85	92	84
Closed circuit	33	44	12	20	63
ITFS	4	2	0	2	1
Cable	36	20	32	7	12
Other	14	8	23	12	11

Source: PBS Video, Audio Visual Market Study, February 1982

Table V-5

TEN SUBJECT AREAS MOST FREQUENTLY PLANNED FOR INCLUSION IN NEXT YEAR'S AUDIO VISUAL PROGRAM
(percentage planning inclusion)

Rank	School		College		Library		Business		Health	
1	Health	77	Health	70	Children	61	Business	75	Health	88
2	Literature	68	Human Relations	56	Health	60	Human Relations	43	Medicine	58
3	Science	64	Death-Dying	54	Culture	54	Health	36	Aging	51
4	Government	55	Business	54	Literature	54	Computers	35	Death-Dying	51
5	Social Sciences	55	Science	53	Science	49	Economics	17	Sexuality	50
6	Culture	54	Sexuality	48	Foreign Cultures	48	Energy	17	Mental Health	48
7	Languages	54	Literature	46	Energy	47	Culture	14	Business	47
8	Energy	51	Medicine	45	Hobbies/Arts And Crafts	47	Science	13	Human Relations	35
9	Human Relations	47	Culture	45	Sports	46	How-to-do	12	Handicapped	31
10	World History	47	Social Science	45	Human Relations	45	Personality Profiles	12	Children & Science	10

Source: PBS Video, Audio Visual Market Study, February 1982

It may be noted that in-room use of audio visual materials is very high, as is ownership of video cassette recorders. Further, strong additional purchases of VCRs were planned by each group in 1983. Videodisc usage was comparatively low, except in the health field where its use in training has achieved moderate acceptance. The PBS Video survey also revealed strong concerns for high quality materials as well as programming that is appropriate to the curriculum, training objective or mandated subject area of the group.

The distribution process for public television programming, beyond initial broadcast, is concentrated among a few entities, eg, PBS Video Service and the Public Television Library. This is helpful in that the distribution of new products will require a concentrated marketing effort as well as strong legal and contractual skills. However, it is also clear that the rights to a great deal of public television programming are not held by public television groups. This was revealed clearly in a survey which George Stein conducted for Corporation for Public Broadcasting. Moreover, there were many instances in the Stein survey where no one knew who held the rights to programming.

In the past, the rights to programming in secondary markets have often reverted to an outside producer after initial broadcast on public television. This is one reason why PBS video cassette sales operated at a loss in 1982 - many programs

with strong appeal were marketed through a commercial distributor.[11] More recently, Corporation for Public Broadcasting has strengthened its position in contracts with producers and now shares revenues from secondary markets. This will bring greater return on investment to the public broadcasting community. However, this is a first step in the direction of ensuring that public television programs can receive extended uses and that a share of revenues from such uses returns to the public broadcasting community.

It does not seem feasible, on a large scale, to reopen contracts and clear the rights on all those programs whose current rights status is unclear. However, it is feasible to develop policies that ensure a clear rights status for future programs. Section VI of this report addresses issues relevant to the development of a rights policy. In addition, it explores some new directions for the production and packaging of programs in order to extend their use and help serve public television mission objectives.

11. Neil Mahrer, Senior Vice President, Public Broadcasting Service, cited in Current, May 24, 1983, p 3.

VI. MAKING DECISIONS ABOUT MODULARIZATION AND PACKAGING

There are at least five levels of packaging for a program beyond normal broadcast on public television.

- Resale to third parties for distribution in other markets. The existing program is sold or licensed, without modification, for use in schools, foreign markets, cable, etc.

- Licensing rights in other products. A character, theme, or content from a program is licensed to a book publisher, video game company or toy manufacturer who creates a new product, eg, a line of dolls based upon Sesame Street characters.

- Modification and distribution in other formats. An existing program is reedited or enhanced, then sold in a new market, eg, wrap-around educational segments are created for a public television general audience program, which is then marketed as a stand-alone telecourse; or, a one hour program is divided into several segments with chapter titles, an index and a second audio track for sale as a videodisc.

- Spin-offs and sequels. New programming is created based upon a previously successful program. The new programming may be created for public television, commercial television, or nonbroadcast markets.

- Modularization. A project is designed at the outset with the intent of producing two, three or several products in varying formats, each appropriate for a given market. Production costs are aggregated so that the package can be produced for substantially less than if the individual programs were created separately. Further, multimarket contracts are negotiated with relevant contributing parties, so that extended use rights do not have to be renegotiated later.

There are many examples of individual public television stations and organizations related to public television who have vigorously explored these packaging alternatives. However, the

public broadcasting community collectively has not strongly pursued these alternatives.

The analysis in this section of the report focuses primarily upon modularization. However, modularization may include elements from each of the packaging alternatives outlined above. In making decisions about modularization and packaging, a public broadcasting station or organization must deal with issues related to design, financing, contracts and the law, and market development. Across this spectrum of issues is a series of important policy questions.

A. Design

There is no simple way to outline all of the design elements relevant to modularization. One core program might deal with education and create associated modules for video cassettes, personal computers and interactive cable, while another core program might deal with a fictional story for children and create associated modules for a video game and illustrated book. The design of the modularized package will be related to content, intended audience and characteristics of the media for which the modules are to be created.

A reasonable way to introduce design issues is by providing a hypothetical model case - a story treatment for a complete modularized package that can be used as a starting point in exploring design issues. Section VIII of this report provides such a story treatment. It is intended for those readers who are involved in the creative process of television program

production.

The creation of modularized packages requires a producer to modify some traditional work methods and exploit resources in new ways. Selected issues related to production for modularized packages are described below.

1. Extended Use Of Resources

Typically, a public television project develops valuable and expensive resources that have a brief lifespan. These may include a research staff, artists, props, and production crews at historical locations. When the project is over, the resources disappear. At the heart of modularization design is the problem of extending the use of these resources: information gathered by the research staff; additional shooting that is possible at an historical location; and ideas generated by educational consultants that cannot be used in the core program. How can these resources be used to create enhancements for the distribution of the core program on cable, videodisc or personal computer software that may accompany the program in educational markets? Further, can an educational program be imbedded in the shooting schedule of a fictional drama program, eg, in a Mark Twain fictional drama series? Can a producer use the settings, props, and research to create a low cost module about Mark Twain?

2. Cataloguing

The process of creating spin-offs, sequels and other programming that imitates in some fashion an original production, will often require recreation of a shot or scene. In order to

do this efficiently, a director requires a detailed catalogue of how shots or scenes were created. Lucas Films and Disney Productions, among others, have developed cataloguing procedures that enable them to recreate shots and scenes without duplicating the expensive trial and error procedures in obtaining the original shot.

3. Reworking Old Material For New Products

The most recent Pink Panther Film, as well as Steve Martin's Dead Men Don't Wear Plaid and Woody Allen's Zelig have integrated original material with old footage to create new products. In an educational context, Corporation for Public Broadcasting supported an experimental videodisc that integrated existing footage from the Mark Twain series on public television with new instructional video. The project demonstrated that low cost modules can be created for a new distribution channel (and targeted audience) by reworking high quality, existing public television materials.[12] There are limits to the types of material that can be reworked in this manner. However, the techniques, where appropriate, can be used to create new programming modules.

4. Length Of Programming

Many program applications that utilize the new technologies are breaking away from rigid program length. Material on videodisc and video cassette can be of variable length. In addition, a good deal of material produced for cable is shorter than 30 minutes. Both HBO special features and Music Television videos

12. Mark Twain's The War Prayer, an interactive laser videodisc. Produced by Forrester Productions, with support by Corporation for Public Broadcasting, 1982.

are 3 to 15 minutes in length. Further, many of the satellite services with magazine formats will purchase material that is less than 30 minutes in length. WGBH, among other public television stations, has begun to explore variable length programming. Often, this has been created to fill a gap in material purchased from foreign markets or originally intended for commercial broadcast, ie, program length was shorter in order to accommodate commercials.

5. Pilot Episodes

As the cost of creating pilots has increased, commercial networks have begun to rely on pilot episodes within existing series in order to test a new concept. That is, rather than create a pilot program about a new concept - one which may never be broadcast - the network's work the pilot into an existing series. In this way they achieve some return on their investment even if the new concept does not test well. This form of testing can be applied to modularization, ie, new concepts can be worked into one module, reducing the risk of trying something which is experimental and at the same time creating a product that offers the potential to recover some costs.

B. Economic And Organizational Issues

The financial and organizational issues associated with modularization may be divided for analytical purposes into two broad categories: first, external project funding and relationships with distributors, licensees and coproducers; and, second, internal cost accounting and management.

1. External Project Funding And Relationships With Distributors, Licensees and Coproducers

Under most circumstances, modularization implies a relationship with outside groups such as state education departments, cable operators, personal computer software publishers or a regional consortium of public television stations. There are a number of models for such relationships. For example, a public television station may enter into a coproduction with a commercial group. A recent arrangement between Warner Amex and KERA in Dallas illustrates some of the negotiable elements in such a relationship. When a KERA production, "Business Edition", was halted for lack of funding, Warner Amex agreed to step in and pay for the production. The programs would be jointly shown on Qube and KERA. Warner Amex cablecasts the program first, with KERA broadcasting the next day. Further, the program has commercials in the Qube version, but no advertising when shown on KERA (stock charts are displayed during commercial slots). In such relationships, the order of release in each distribution channel and ownership of rights in other markets (e.g. video cassette) are negotiable.

Barter relationships between a producer and distributor typically involve a sharing of commercial time in the program. For a public broadcasting group, barter may involve a hybrid arrangement in which an underwriter for a public television series (or a third party commercial group) inserts some advertising in modules that are intended to be distributed commercially. These modules could then be offered in a barter arrangement to

cable operators or independent broadcast stations. Alternatively, the "barter" could involve future funding of other projects. That is, in return for use of modules from series X, a cable MSO (multiple system operator) might agree to coproduce series Y that has yet to enter production.

The traditional distributor and renter or licensee relationship involves a flat fee for a given number of runs within a specific time period. In some cases, the fee is based on the actual number of subscribers to a cable system or the market size of an independent broadcaster. With pay per view arrangements, the distributor typically receives a percentage split based upon the actual number of viewers.

The financing of modularized packages will be more difficult than the financing of a single program or series in that the budget will be greater. However, modularization also creates an environment that may attract funders who would not otherwise have an interest in the project, ie, since the additional modules will address a new content area or be appropriate for distribution in an additional medium. Further, it will be cheaper to fund a module attached to such a project than to create the module or program on a stand-alone basis.

2. Internal Financial And Management Issues

From a station's perspective, modularization raises questions about value, budgeting, cost accounting and market receptivity (or, estimates of likely market receptivity). These issues of station financial management and organizational structure will be critical to the successful implementation of

a modularization project since it introduces a new way of working and a potentially complex relationship between a station's nonprofit and revenue generating activities. Selected financial management and organizational issues are outlined below. Section IX, provided as an appendix to this report, develops the analysis in greater detail.

a. Planning And Organizing For Modularization.

It will be important for a station to establish organizational goals and objectives for the modularization project. These include articulating quantitative decision criteria and outcomes the station expects from engaging in the activity. In addition, a station must weigh how the project will be integrated within the station's organizational structure. This includes a review of possible ways in which modularization activities can be placed within station divisions, and discussions about the ramifications of modularization for vertical integration of station operations. For example, a given module might require that a station take on a role as distributor, a role that is foreign to the station.

b. Market Assessment

Modularization must also be placed within a market assessment and research context. For example, a station will likely require methods to screen potential modularization projects from a financial, technical, operational, market, legal and strategic perspective. Among the qualitative and quantitative methods for selecting modularization opportunities are mission congruence, risk analysis, and capital investment evaluation.

These traditional analytic techniques in the profit sector can be adapted to a public broadcasting context with its broader set of values.

c. Setting Objectives For The Project And Controlling Budgets

What objectives and evaluation criteria should be established to measure project performance? A modularization project can become an unwieldy octopus with many tentacles thrashing about. It will be very important to set clear and measurable objectives with timelines and associated budget controls.

d. Cost Accounting In A Nonprofit Organization

Many types of modularization project are likely to confound traditional cost accounting procedures, by the ways in which they mix profit and nonprofit activities. In addition, it will be more difficult to assign overhead and to provide reports to funding agencies, since the aggregation of costs is critical to the success of modularization. Regardless of these problems, public broadcasting organizations must still meet the basic accounting requirements of Corporation for Public Broadcasting.[13]

C. Contracts And Legal Issues

There is some legal complexity associated with the creation and execution of a "rights and contracts plan" for multimarket. use of a modularized package of public television materials. This complexity varies with the nature of the program or module and the intended markets beyond standard public television distribution.

13. For a set of guidelines, see Principles of Accounting And Financial Reporting For Public Telecommunications Entities. Washington, DC: Corporation for Public Broadcasting, 1980.

It is a result of the varying number of contributing persons involved, as well as variations in the nature, scope, and duration of rights required from each contributing person. In negotiating rights and developing a contract plan for a multi-use project, a public television station or producer should carefully assess and account for the following.

1. The Nature Of The Program(s) To Be Produced

The nature of the program(s) to be produced will affect the number of contributing parties. Contributing parties are persons or organizations who (as the creators, performers, owners or enhancers of works) by operation of law or of marketplace forces, enjoy the ability to prevent the producer from making the program, or to restrict the producer's use of the program once it is made. For example, the adaptation of a novel for television will involve the author, the publisher, and the adaptor, as well as the director, actors, musicians, etc. The creation of a concert series may involve "contributions" from scores of composers, authors, publishers and musicians as well as "the house" or orchestra company, stagehands, electricians, etc. Each contributing party may have one or more representatives, ie, the guild or union which establishes basic terms, "scale" or minimum payments, and basic conditions for its members, and the agent who strives to achieve greater justice and "protection" for his client in the specific case than the organization has achieved in the general one. Typically, the number of contributing parties affects the ease with which a consistent pattern of rights may be obtained.

2. Intended Markets For The Program(s)

The intended markets for the program modules will determine the nature of rights the producer must obtain from each and every contributing party in order to make the project work as intended. There are rights to adapt, to perform, to record, to rerecord, to edit, to format and reformat, to package and repackage, for use in the entire range of media, formats, and places described in (3.) below. The nature of rights granted determines just what it is the producer may do with the element each contributing party contributes, before, during and after the program is made. If each contributing party does not grant the same rights to use the program material, the project will not get beyond the most restrictive use right granted.

3. Scope Of Rights

The intended (functional and geographic) markets will determine the minimal scope of rights the producer must obtain from each and every contributing party to make the project work as intended. Public television, public television-public radio simulcast; basic cable, pay cable, pay per view cable; subscription television, direct satellite broadcast, syndicated commercial broadcast; theatrical, non theatrical audio-visual exhibition; video cassette, videodisc, video game; local, domestic, North American, foreign, worldwide, universal - each term has a meaning (more or less) in the parlance of contributing parties. Scope of rights establishes the functional or geographical limits within which the producer may exploit the program, once the program is made. The element each contributing party has

contributed should be clearly established and equally granted for the same market(s), or the value of the product will be seriously impaired.

4. Duration Of Rights

The intended markets will also determine the minimal duration of rights the producer must obtain from each and every contributing party to make the project work. Here the concepts are narrower, but varied still: number of "plays," number of "releases," unlimited plays within a time period; years of use; basic term, extended term, and unlimited use. The duration of rights often varies, market to market. Duration of rights determines how long or how many times the producer may use, or permit others to use, the elements each contributing party has contributed to the program, once the program is made. Unless all parties grant the same duration of rights, the most restrictive time term will prevail.

Clearly, the producer or producing station of a modularized programming package should strive to assure that all contributing parties grant the same nature, scope, and duration of rights, or at least do so on a market by market basis. Without the same rights from each contributing party, overall or market by market, the project will be hemmed-in at the start by the least common denominator of nature or scope or duration of rights granted.

Uniformity of rights available from various groups of contributing parties has for some time been the objective of negotiations for traditional public television uses. Recently,

some headway has been made in "new use" areas. Table VI-1 summarizes the rights available to a producer under a few "industry wide" public television agreements. Unfortunately, no association, society, union or guild has yet negotiated a general agreement that effectively permits the work of its members to be treated as raw material that a producer can mold and remold, use and reuse, in any market, over an unlimited time period. Further, no such agreement is likely to be forthcoming in the near future. Every new communications technology and each developing market raises new anticipations of greater rewards for the contributing parties. These anticipations complicate and, often, frustrate negotiations for required rights.

Under these conditions, a producer who seeks to create modularized packages for multi-use markets must often create special "rights and contracts plans" for each modularization project. Such a plan must be superimposed upon, carved out of or constructed to circumvent a plethora of widely variant industry or guild standard practices, "boilerplate" contract terms, and restrictive license provisions. The creation of such a rights and contracts plan is likely to involve considerable time and expense. However, at the end of this contractual "tunnel" are opportunities for artistic, public service, and even finanial rewards.

These contractual issues have implications for the selection and organization of multi-use, modularization projects. Put

Table VI-1

Selected Program Elements, Contributing Parties, and Standard Rights Available

Element	Contributing Party	Basic Right Required	Basic Right Available Through	Standard PTV Agreement if any	Law, if any	Basic PTV, Public Radio Simulcasts, Certain Sustaining Commercial	Schools, Limited Record & Use	Excerpts Recurs
1. Works Incorporated in the Production								
A. "The Underlying Work" e.g., a novel	author/ publisher	adaptation to TV screenplay	author/ publisher agent	none	none	none	none	none
B. A copyrighted musical contribution	composer/ publisher	recording "synch" right	author/ publisher agent; Harry Fox Agency	Fox-PBS-NPR Oct. 12, 1982	Copyright Act Compulsory License	record performances in Fox catalogue on and for public telecommunications services unlimited	included	none
2. "The Work" e.g. an original screenplay for television								
A. By freelance	writer	perform, record performances, reperform	writer/ agent	Writers Guild PTV producers	none	standard	none	none
B. by writer employee, or for hire, subject to agreement	employee or contractor	same	employment agreement (in house)	none	Copyright Act	unlimited	unlimited	unlimited
3. "Talent", e.g.								
A. Actor	actor	performance	actor/agent	AFTRA-PTV	none	4 releases/ 3 years	included	prohibited extra on waiver
B. Musician	musician	performance	musician/ agent	AFTRA-PTV	none	4 releases/ 3 years	included	prohibited extra on waiver

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Table VI-1

(continued)

Element	Syndicated Telecast	Cable Basic	Cable Pay	Cable Pay Per View	Home Video	Theatrical	Non-Theatrical A-V	Other	Territory
1. Works Incorporated in the Production									
A. "The Underlying Work" e.g., a novel	none	none	none	none	none	none	none	none	none
B. A copyrighted musical contribution	none	non-sponsored retrans-mission included	none	none	none	none	included, radio only	includes certain cable, ITFS, LPTV, SCA	US and any country where there is no licensing agency, AFRTS
2. "The Work" e.g., an original screen-play for television									
A. by freelance	none	none	none	none	none	none	none	none	U.S.
B. by writer employee, or for hire, subject to agreement	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited	world wide
3. "Talent", e.g.									
A. Actor	separate agreement	included	available extra	available extra	pro-hibited	pro-hibited	extra		U.S./Canada foreign extra
B. Musician	separate agreement	included	pro-hibited	pro-hibited	available extra	pro-hibited	available extra	inflight extra	U.S./Canada foreign extra

Source: Deane, Snowdon, Shutler and Gherardi

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simply, some projects will be easier to organize than others.

A few common elements have been associated with the multi-market rights and contracts plans that have been created to date.

- Program ideas are kept simple. Often, the program has consisted of a "live" performance plus commentary. This reduces the number of contributing parties. The producer has developed the rights and contracts plan by working from "the top down," involving the "house" first, then the musicians.

- The program elements are "modular" by nature: four short stories; a dozen songs; a survey of contemporary arts and artists. All of these can be cut and rearranged to meet the varying time and theme requirements of different markets from broadcast to home video to cable.

- The program elements are in the public domain, available via compulsory license, or are owned by the handful of persons performing their own works for the producer. The latter group of persons generally have greater flexibility and a higher degree of personal interest in the dissemination of their works over a broad range of places and times. The availability of "critical" rights eases the process of obtaining other "necessary" rights.

- Payments for the "critical" rights are made on a prearranged "step-deal" basis, eg, the producer pays a predetermined additonal fee for cable, then video cassette, then foreign distribution as each occurs. A front-end "buy" of markets might be less expensive in the long run, but the step-deal allows the producer to make the program, then pay for new markets as he negotiates for purchase by a distributor. Further, the purchaser's advance can be used to pay the contributing parties for the new market use.

It should be apparent that the process of creating a multi-use contract for a modularized program package requires strong negotiating skills. Section X of this report outlines some negotiation guidelines for public television producers and producing stations.

VII. CONCLUSION: MODULARIZATION AND PUBLIC BROADCASTING POLICY

It may be argued that the modularization of selected public television projects with an intent to explore extended uses of materials in the emerging telecommunications markets is not in keeping with public broadcasting's mandate. If such projects are largely commercial in nature, with no public service objective, then indeed they would appear to fall outside the mission of public broadcasting. Alternatively, the modularization process may be viewed as a way to create more programs at lower unit costs in the service of educational or cultural objectives.

A second argument against the development of materials for the new distribution environment is that it will dilute the current broadcast audience for public television programs. However, these markets are likely to grow (or fail) regardless of public broadcasting's involvement. Further, by providing materials for the new distribution technologies, public broadcasting is likely to reach people in their medium of choice and help to maintain audience share in the new, broader marketplace.

The analysis of the distribution environment for programming in Sections II-V of this report suggests that the 1980s are and will continue to be a period of rapid change in the relationship between program providers and audiences. Some groups, eg, commercial networks, are likely to experience a reduction in audience while cable, video cassette and personal computer

services are likely to reach wider audiences. The analysis failed to reveal any areas that offered the potential of very substantial revenues for public television stations - even if major commercial activities could be justified under the public broadcasting mandate. At the same time, the new distribution environment appears to offer opportunities to extend the reach of public television programs, serve audiences in new ways (eg, interactive programming) and potentially generate a small share of the revenues that are required by stations in meeting their mission objectives.

The opportunity, and problem, of developing new technology ventures can be presented in simple terms. It is clear that audiences for many of the new technologies are growing and will continue to grow. In addition, it is apparent that there is a strong need for content, including some content areas in which public broadcasting has expertise and a mandate to provide services. The problem is that many of the new technologies are in an early stage of audience development. Further, the content strength of public broadcasting represents a relatively small proportion of audience demand, albeit highly valued by those who want it. These characteristics of the market do not appear to support the suggestion that public broadcasting should commit to the development of original programs for the emerging markets as a means of reliable ancillary revenue. However, they do suggest the potential for spin-offs, licensing of rights, repackaging of some public television programs, and the

modularization of selected new video projects for multiple uses in the new markets.

The development of these opportunities will require a skilfull aggregation of resources and a careful analysis of how secondary distribution opportunities may be available to projects that are being produced within mainstream public broadcasting activities. While the objective for extended use modules as well as core broadcast programs is educational, cultural or informational, the need for sound financial planning and assessment of market demand is just as important in the nonprofit sector as in the profit sector.

Some public television stations are likely to need assistance in understanding technical, legal, financial and distribution requirements associated with the development of programs for the new technologies. This report has attempted to introduce these topics and contribute to a systematic analysis in support of station activities. Clearly, there is a need for additional support activities: organized sessions at national education conferences; regional meetings of stations; and reports in public television newsletters about station projects for multiple markets.

In addition, there is a need for some ground breaking activity, ie, actual modularization projects, with careful monitoring and reporting to the public broadcasting community. These early projects may be able to deal with some of the legal and contractual problems outlined in Section VI and, ideally,

set precedents that can smooth the way for projects that follow.

Further, the development of extended use program materials may create a need for changes in program funding. For example, low interest loans might be used to fund extended use modules which are expected to generate revenue.

APPENDIX MATERIALS

VIII. A SAMPLE PROGRAM PACKAGE WITH MODULES

This section provides story outlines and treatments for a hypothetical package of television programs, personal computer software, prerecorded video cassettes and videodisc, all of which are created from a single core production. The sample package is intended to demonstrate some of the planning and design work associated with the modularization of program materials for the new distribution environment. It is built around a core production that is similar in scope to many programs that have been broadcast on public television: a general audience mystery story with strong historical components. The spin-off modules use characters, settings, research, music and other production elements in the core program. They rely on the re-use of selected footage from the core program as well as some original footage that can be shot at reduced costs since the actors, props, costumes and settings have already been brought together for the core program.

The package consists of the following.

A. Core Production

1. The Tiger And The Lady

A 90 minute mystery set in New York City during the Boss Tweed era (1870s). This core program is intended to be a major public television production with national PBS distribution to general audiences.

B. Spin-off Modules

1. Cityscapes

A 3-part educational mini-series about New York City in the second half of the 19th century. Each program is 30 minutes in length. The series is intended to be distributed via the PBS Adult Learning Program Service as well as via prerecorded video cassettes for use by local community colleges, high schools and consumer homes. Print materials, utilizing the research data developed for the core production, will accompany the video programming.

a. Money And Stone: A review of city economics and architecture in the 19th century.

b. Boss Tweed: A review of city politics in the latter half of the 19th century.

c. Eating And Drinking: A review of lifestyles in the 19th century, including actual recipes and dining customs from the 1870s.

2. Fire

A videodisc that uses an interactive format to teach about social customs and the history of New York City in the 19th century. It is intended to be distributed to high schools and the consumer market. In addition, it is suitable for interactive cable television.

3. Chicanery And Fraud

Software for a personal computer that uses an adventure game format to entertain and instruct students about historical facts in the 1870s. It is intended to be distributed to high schools and consumers who own a personal computer.

The production of this programming package requires new work methods. The producers, along with their team of researchers and writers, must plan the creation of six products instead of one. Further, they must develop a sophisticated and efficient

shooting schedule that takes maximum advantage of actor availability, location rental, costumes and props. For example, in the story outlines that follow, a restaurant in lower Manhattan will serve as a location both for a scene in the core program and one of the spin-off programs on eating and drinking in the 19th century. Similarly, the same actors who perform in a scene from the core program during the morning will perform scenes for one of the spin-off modules in the afternoon. In reading the story outlines and treatments that follow, it will become apparent that many of the same locations, actors, and props are being used in each of the modules.

THE TIGER AND THE LADY

H.P.G. Kappes

:90 Minutes

Synopsis Of The Core Program

Against the background of Boss Tweed's New York, an investigator for a detective agency unravels a mystery that leads to the heart of the Tammany Hall corruption. He searches into the shrouded past of a young woman. He finds romance and death. Election fraud, bribery and murder are the tools of the political machine that the investigator must smash before it becomes too powerful to be stopped.

Setting

In 1871, New York was a city of contrasts. The magnificent hotels, mansions and elegant restaurants clashed with the poverty of Rag Picker's Row and the violence of Hell's Kitchen. The newly completed Central Park was on the outskirts of town, while the center was closer to Chelsea. The cobblestone streets were jammed with horsecars, stages, carriages and wagons. Her population had swelled to almost one million people, as German and Irish immigrants poured into the tenement districts that were the backbone of a powerful political machine: The Tweed Ring.

The Bowery and Satan's Circus areas resounded with the tinkle of pianos in the bordellos and concert saloons. The rich had moved uptown. Fine shops and brownstone houses were springing up on the newly widened Fifth Avenue.

In the daytime, one could go to a baseball game then, in the evening, have a dinner of many courses at Delmonico's and finally top off the night with a musical revue at one of the seventeen theaters near 14th Street. At night the city was dimly lit by gaslight. The men were dressed in heavy black suits, derbies, white shirts and paper collars while the women wore corsets, drab dark clothing, petticoats and black shoes.

Manufacturing and banking boomed as fortunes were made and lost in the stock market or gold and silver speculation. An air of fear and mistrust pervaded the municipal government as Boss Tweed and his cronies emptied the city's coffers.

Principal Characters

William Tweed, "Big Bill", is six feet tall and weighs 300 pounds. He is an imposing man with friendly blue eyes, reddish brown hair, mustache and chin whiskers. He always wears a diamond stud on his shirt front. He neither drinks

nor smokes but enjoys lively company and an off-color joke. He is a jolly rogue who is loyal to his friends and charming to all. He is not a polished speaker and has a sputtering delivery. "Boss Tweed" runs Tammany Hall, the Democratic political machine that controls the city. Graft has made him wealthy, but he is crude and vulgar and not accepted by society. He has built his political power on the newly arrived Irish immigrants by using the ward system of patronage and control.

Mayor A. Oakey Hall, "The Elegant Oakey", is a scholar and a buffoon. He is nervous, witty and a showman. During his career he has been a playwright, lecturer, poet, journalist, lawyer, clubman and humorist. He understands the art of survival as he changes political parties almost as often as he changes his sartorial splendor. He is the front man for the Tweed Ring, bringing it sorely needed respectability.

Richard Connolly, "Slippery Dick", controls and manages the city's finances as comptroller. He is smooth, oily, rake thin and not to be trusted. He is cold and crafty with insinuating manners, obsequious to his superiors and arrogant to his underlings.

Peter Barr Sweeny, "Brains", is subtle, dark, brooding and Machiavellian. He is short, ugly and fat with a large head and walrus mustache. He always wears black clothes and a black silk hat. Sweeny serves as Tweed's right-hand man and political manager. His work is done behind the scenes in hotel corridors, smoke filled rooms and the corner of lobbies.

The Investigator is a young, intelligent New Yorker who works for a detective agency. He is drawn into the web of corruption while pursuing a seemingly unrelated case.

Helene Delacourt is a young, vivacious heroine and the mistress of Mayor Oakey Hall. She asks The Investigator for help in solving an old mystery that ultimately leads to Tammany Hall and Boss Tweed.

Story Outline

New York. 1871. It is the era of gas lamps, horse drawn carriages, cobblestone streets and Tammany Hall.

A horse drawn cab passes slowly along Broadway near Canal Street. There are rows of four and five story brick buildings: printing shops, sign painters, saloons, drug brokers and furniture shops. An election campaign is in progress.

A Tammany ward boss has six drunks lined up outside a saloon. As he pays them off he says, "Remember, vote early and vote often!"

The streets are filthy and strewn with garbage. Peddlers and vendors hawk their wares. Newspaperboys sell The Sun, The World and The Times.

A young, vivacious girl alights from the cab and enters a seedy office building. She glances at a wooden sign that reads: MacDonald's National Detective Agency. She says she is Helene Delacourt and asks for help in clearing the name of

Edward Dawson who died in prison eight years earlier. The Investigator asks why she has waited so long. She is mysterious and refuses to answer any more questions. She produces a substantial packet of money. He is intrigued by her.

The Investigator discusses the case with Cameron MacDonald, the owner of the agency, who warns him that there are many skeletons buried at city hall. Boss Tweed runs the town, controls the police and the courts like a baron from his fiefdom at Tammany Hall.

The Investigator walks to city hall. In the background, a candidate for the Young Democracy Reformers urges a crowd to vote for him. A mob hired by Tammany and armed with clubs pours from the saloons and flop houses. They attack the reformers and a bloody riot follows. The police stand idly by, then move in and arrest the beaten reformers.

The Investigator learns that Edward Dawson was convicted of embezzling funds at about the time of the Civil War draft riots. William Tweed was head of the bounty funds at the time. Richard Connolly prevents the Investigator from getting any more information. All he knows is that Dawson hung himself in jail.

On the steps of city hall, Mayor A. Oakey Hall arrives with his entourage. He quips with the reporters about the upcoming election. George Jones, a Times reporter, befriends the Investigator and gives him a briefing on the politicians.

The Investigator passes the county court house behind city hall. Twelve years under construction, it is still not finished. Workmen hoist barrels of plaster to the roof.

On a street near the court house, the Investigator passes a man who is exiting from a voting place. The man looks at two dollars in his hand. MONTAGE SCENE: Barber shop. The man exits with chin whiskers and side burns. He votes. Barber shop. The man has side burns only. He votes. Barber shop. The man is clean shaven. He leaves the polling booth for the fourth time with a handful of money.

In a Gin Row tenement, the Investigator asks an old lady about the Dawson family. She recalls vaguely a woman with a half dozen children. According to the old lady, the woman went mad and was taken away to the state asylum. However, she recalls little else and the trail to Dawson goes cold.

The Investigator and Helene Delacourt sit in a semi-private booth at Harry Hill's Concert Saloon. Below, the noted Negro pianist, Blind Tom, sings. The crowd is unruly and boisterous. There are shouts of wagering as two Irish prize fighters warm-up. The Investigator is surprised that Helene is a lot more worldly than he had imagined. He tells her that Tweed is involved somehow. She might be able to obtain information about the Tweed Ring but refuses to elaborate.

As they leave, Peter Sweeny spots them. He asks a waiter, "Who's the man with Oakey Hall's mistress?" He motions to three young toughs from the Dead Rabbit gang.

The Investigator follows Helene but loses sight of her in the maze of alleys. The toughs jump and beat him. He gets the worst of it but is saved by four meat cutters who step out of an adjoining building.

At the detective agency, Cameron MacDonald pours a shot of rye for the Investigator and tells him that city hall has told him to stop digging up the past. They have threatened to cut off his income by not providing any more warrant and subpoena cases. MacDonald opens a copy of Harper's Weekly and points to a Nast cartoon of the Tweed Ring. He gives a quick sketch of the men and the rumors of graft that are circulating. MacDonald does not stop the Investigator but warns him that he is becoming too involved with Helene Delacourt.

The Investigator reads in the Times of a sweeping election victory by Tammany Hall. A boy hands the Investigator an ingraved invitation to a dinner honoring William Tweed.

In Delmonico's kitchen, an elaborate banquet is being prepared. Carved ice sculptures of the Tammany Tiger are complemented by many courses of soup, fish, wild fowl and game, roasts, fruits and desserts. This opulence is juxtaposed with the poverty and hunger of the immigrants. The waiters set the banquet table with expensive crystal and china.

The cream of New York society and its political bosses are at the dinner. The Astor, Vanderbilts, Gould and Fisk families sit at the same tables with the Tammany Ring. George Jones, the reporter, points out to the Investigator who's who in the city hierarchy. Tweed arrives with Sweeny and Mayor Hall. Oakey Hall gives a witty speech outlining Tweed's accomplishments.

"Slippery Dick" Connolly relates the election results and the control by Tammany of the city council and judgeships. He introduces Governor Hoffman as their man and hints of a future presidential candidacy for him. Jones tells the Investigator that Tweed is behind it all and that they will bankrupt the country just as they have done to the city. The Tweed Ring controls the police, courts, city council and the state house. Millions are being stolen and if he (Jones) had proof, he would publish it and bring the Tweed Ring down.

"Brains" Sweeny whispers into Tweed's ear. Tweed gives a short humble speech. He ends by saying, "I challenge any politician in New York to point out where I have broken my word."

Sweeny invites Jones and the Investigator to Tammany Hall for a few drinks with the boys. In the plush library, the inner circle of the Tweed Ring celebrate. There are deep leather chairs, marble mantles, a roaring fire, brandies and cigars. A police captain, brandy in hand, says, "Hear, see and say nothin. Eat, drink and pay nothin." He gets a big laugh.

The Investigator wanders down the marble halls of the Tammany clubhouse. He sees a poor workingman leave an office. The man clutches a few dollars and thanks Tweed profusely. Tweed sees the Investigator and invites him into his office for a drink. Tweed says that he knows the Investigator has been asking many questions about his past.

"You best be careful," Tweed says, "The answers you get, might not be the ones you are expecting." Tweed claims that Dawson was guilty and that he was caught red-handed. It was war time and Dawson should have been hung. Tweed used up many favors to get him a reduced sentence. He suggests a visit to Judge Bernard if the Investigator doesn't believe him. The Investigator insinuates that Tweed controls the city and the courts. Tweed admits it and explains his theory of honesty and graft as he rationalizes his morality.

The Investigator meets Helene in the newly created Central Park. He is falling in love with her and is hesitant to tell her that Dawson is guilty. Helene has seen $ 350,000 in fraudulent carpet bills for the new court house. The Investigator asks her to get evidence of the corruption. "Brains" Sweeny watches them from a secret vantage point.

At the court house the Investigator wonders how the money was spent. The work on the court house is shoddy. Pipes leak and plaster falls off the walls. Scores of idlers on the city's payroll lounge about playing cards and smoking cigars.

Judge Bernard tells the Investigator that Dawson was guilty. After the bounty money scandal broke, hundreds died in draft riots throughout the city. Dawson's wife was committed to a state asylum just after she sold her daughter, age thirteen, to Kate Wood, a notorious madam.

The Investigator becomes very drunk at the ornately carved bar of the Hoffman House Bar. He doesn't want to believe that Helene Delacourt is Dawson's daughter.

In the parlor of the finest bordello in Satan's Circus, he finds out that Helene has changed her name and is being kept at the Fifth Avenue Hotel by an important man.

The Investigator is in a vile mood as he enters Helene's room. She calls out to him, thinking he is Oakey Hall. He is arrogant and hurt and tells her that he knows of her past at Kate Wood's. He also relates that her mother is in an asylum courtesy of Bill Tweed. Helene is crushed as she tells him of the hardships that led her mother to sell her to the brothel. Someone enters the ante room. Helene makes the Investigator leave by a side door. The visitor surprises her. It is not the person she expected.

The Investigator collapses on a sofa in his office. Outside, two toughs bar the door, splash oil in the hallway and ignite it. A fire engulfs the building as the Investigator struggles out onto a ledge. The fire department arrives and he is saved at the last moment by leaping into a net.

George Jones, the Times reporter, is serious about breaking the Tweed Ring but he needs proof that will hold up in court. The Investigator is determined to get the evidence from Helene. He goes to the Fifth Avenue Hotel in a hansom cab only to find that a crowd has formed outside. On the ground is a body covered by a policeman's coat. A police captain says, "She's made a fine mess of it. It's the mayor's flash woman. We can do all right with this if we know how to play our cards."

At a small stone church near the Battery, MacDonald and the Investigator exit the graveyard. The Investigator vows to avenge Helene's death. MacDonald consoles him, arguing that if it was suicide, Helene was insane like her mother. And, if it was murder, there is nothing that the Investigator can do about it.

The Investigator waits until the night watchman passes in front of the court house, then he breaks the glass of a basement window and enters the building. He makes his way to the Comptroller's Office where he finds a hidden safe and opens it with a hand drill and punch. He comments that they even bought cheap safes. Going through the contents of the safe, he finds the vouchers for the kickbacks and payoffs. He is discovered by a watchman who alerts the police. However, the Investigator escapes by swinging down on the crane ropes that have been used to haul material to the roof.

The next morning at Tammany Hall the police captain drags the bloodied Investigator into Tweed's office. Sweeny and Connolly stand behind Tweed. He offers the Investigator a bribe of $ 50,000 to turn over the vouchers and leave the country. In the streets below the newsboys are yelling the morning headline. The Investigator says it is too late. Mayor Oakey Hall bursts into the room waving a copy of the Times. Hall shouts that the scandal has broken and that the Times claims it has written evidence of widespread graft. He says, "It will be prison for all of us."

Tweed flings open the French doors of the balcony. Below, a crowd has already gathered. Mayor Hall repeats the litany of fraud they have committed but Tweed cuts him short and snarls, "So, what are they going to do about it?"

It is an early gray morning outside the Ludlow Street Prison. Tweed is led from the police wagon to the door. He stumbles on the steps and arrogantly refuses help from the policemen. The warden opens the prison door and writes Tweed's name on a pad. He asks, "What is your profession?" William Tweed squares his shoulders and answers, "Statesman."

Across the street the Investigator watches the doors slam shut. He turns away and walks down the street.

CITYSCAPES

Cityscapes is a three-part mini-series. Each 30 minute program is introduced by an historian, who also serves as a narrator for selected segments within the series. The goal of this educational series is to inform while entertaining.

A. Money And Stone

The first program in the series, Money And Stone, will provide a general overview of New York City at the time of Boss Tweed with particular attention given to its economic growth and expansion. Money And Stone will use footage from The Tiger And The Lady and additional footage that has been preplanned for this module and which will be filmed at the same time as the core program. The following are examples of economic, architectural and general interest topics to be covered.

- The Theatre District was centered around 14th Street. A citizen could see Edwin Forrest playing a Shakespearian role or hear Black Tom, the noted Negro pianist, play at the Lyric. The streets were filled with itinerant musicians, organ grinders, harmonica players and whistlers.

- The Red Light District ran from 24th Street to 13th Street and contained 56 brothels. The most famous was Kate Wood's, in a three-story brownstone at 105 West 25th Street. This area was aptly named Satan's Circus. North of Satan's Circus was Hell's Kitchen, a jungle of saloons, bordellos, tenements and cheap boarding houses. A policeman is said to have named it by commenting, "If hell is hot, then this must be Hell's Kitchen."

- The construction of the County Court House provided millions of dollars in graft and kickbacks to Tammany Hall. The cost of the Court House was not to excede $ 250,000. Thirteen years after the project was begun, 14 million dollars had been spent and the building was still not finished. Tweed and Peter Sweeny made the contacts and arrangements with the city businessmen who served as contractors. Richard Connolly, the Comptroller, supervised the kickbacks on the padded bills that the contractors submitted. Fraudulent bills, services not performed, time taken off, and shoddy materials cost the city millions. Before the Court House was opened officially, over two million dollars was spent on repair work.

- The Tammany Tiger was made popular by Thomas Nast as a symbol of the greed of the Tweed Ring. As a young man, Tweed headed a volunteer fire brigade that had a picture of a tiger on its engine. These fire companies formed the nucleus of Tweed's power as he developed them into political clubs and lobby groups.

- New York City was constructed of wooden buildings, primarily, during the 1870s. Fire was a constant threat. To deal with this, local fire wardens were posted in wooden towers atop buildings. By using a system of triangulation, a fire warden determined the exact location of a fire and rang a bell in code to signal fire companies.

B. Boss Tweed

In Boss Tweed, the characters in The Tiger And The Lady will be subjected to penetrating questions by the series' host, borrowing a format made popular by Walter Cronkite in You Are There. The political climate of the 1870s will be explored in depth. Boss Tweed, Elegant Oakey Hall and the other Tammany leaders will attempt to justify their actions in a give and take repartee with the series' host.

This program, as well as the other Cityscape programs, is suitable for interactive cable adaptation. In Boss Tweed, an interactive cable audience can form opinions of the

characters and select follow-up questions for the host to ask. Below, a brief excerpt from one of the interviews in Boss Tweed is presented.

The series' host enters Boss Tweed's Ludlow Street Prison cell. Tweed sits behind a wooden table. His ring of corruption has been smashed. His cronies have scattered to France and Germany. Mayor Hall claims to have been hoodwinked by bad company. Hall will subsequently be acquitted of graft and bribery. The reformers have swept Tammany Hall out of office. Tweed, haughty and arrogant, gives an interview.

MODERATOR: Did the condition of the Irish immigrant - the slums, the poverty - influence your choosing politics as a career?

BOSS TWEED: I'm not Irish, Catholic or a slum boy. My father was a clever, decent old gentleman who made chairs and my mother...they say she spoiled me. I organized a fire company, The Big Six. I had a snarling red tiger painted on the engine. I may be three hundred pounds now but I cut a fine figure then - red flannel shirt and white fire coat. None of the other companies could rival us.

MODERATOR: Do you feel you have a responsibility to the people who elected you?

BOSS TWEED: I learned my trade as an Alderman. They could always put the touch on me. The ward leader - that's where the power is in the city. He has to know his neighborhood and who needs a job or a loan. And, maybe arrange for the right judge if one of the boys gets into a spot of trouble. I'd throw a couple of clam bakes and picnics. Then they were sure to get out the vote. Saloon licenses, ferry franchises. The help was there and the garbage was always picked up in the wards that voted my way.

MODERATOR: This question might seem a little blunt, but did you take the money?

BOSS TWEED: I took the money. But it was honest graft. It takes two to make a deal. I never twisted anyone's arm. I didn't quibble and I didn't keep all the money. There were hundreds to be paid off. From here to Albany. Yes and some of the reformers got their share. Go ask Samuel Tilden the same question and see if you'll get as straight an answer.

C. Eating And Drinking

Eating And Drinking, the third program in the mini-series, provides an historical look at social customs in the 1870s. In some ways, it is a cooking show about 19th century food and drink. For example, during the shooting of the Delmonico's banquet sequence in the core program, the camera will go behind the scenes and shoot a special sequence that will appear in Eating And Drinking. A cooking instructor will explain the preparation of the various courses. The pre-production of the dinner scene for the core program would take many weeks, and the actual preparation of the food would take days. It is during this time that the ancillary program materials would be filmed.

This look at society from the kitchen's viewpoint has proved highly successful in such shows as Upstairs Downstairs and The Duchess of Duke Street. In Eating And Drinking, the host will demonstrate cooking techniques and relate recipes that can provide the audience with a taste of the period. The social manners and mores of the Boss Tweed era will also be discussed. Original footage will be supplemented by prints, drawings and menus from the period.

A sample of the historical material to be covered is described below.

- It was the age of the saloon, bar, oyster house, beer garden, grog shop and elegant restaurant. To take a whiskey meant bourbon or rye. Anyway but "neat" was considered effeminate. However, chasers were allowed: water, clam juice, ginger ale or milk. In proper saloons, the patrons poured their own drinks but in

barrelhouses, a nickel slug meant a brimming shot glass that was likely to have been thinned with prune juice and water by the management.

- The "bums rush" was not a means of expelling drunks but a way to repel raids on the free lunch counter. The food was heavily salted so that a lot of beer had to be drunk. Only those who purchased drinks were entitled to the free lunch. Others received the bums rush.

- In New York's high society, there was an excess of spending, food, snobbery and etiquette. In the dining rooms of the great hotels such as the Grand Central Hotel and the Astor House as well as in restaurants such as Delmonico's or the Palm, ostentatious banquets were commonplace. These were two hundred dollar a plate dinners in the age of the five dollar a week wage.

FIRE

FIRE is an interactive laser videodisc. The plot or premise is a race against time to prevent a band of anarchists from burning New York City of 1871 to the ground.

The viewer or player of the videodisc is transported back in time to New York in the 1870s. Through the use of point-of-view camera angles, the player is made to feel that he is actually living in this past time. It is an age of horse drawn carriages, bustled skirts, bare knuckle prize fights and the free lunch saloon. The player must learn how to think, act and survive in this historical context.

Much of the footage for the videodisc will be edited from the core production, with supplementary footage to be shot during the time when the production team is setup in lower New York.

Rules of Play

Through a series of adventures, tests, and visual clues, the player acquires knowledge of the period that he will subsequently need in order to defeat the mad arsonists who threaten to level the city. The player has a limited amount of time to stop the anarchists. He can use this time at his own discretion.

The videodisc begins on a morning in 1871. The player quickly learns that anarchists are planning to burn the city. However at this point the player doesn't know who they are; what are their specific plans; and where they are going to do

their dastardly deed.

The player has the ability to speedup or slow down the scenes he views in order to search for clues or save time. The faster he learns, the more time he will have later. Information is presented to the player in the form of actual newspapers, playbills, railroad tickets, prints and menus of the period as well as through action scenes. In order to save the city, the player must act and think like a person of 1871.

Below, a brief scene and decision point for the player are presented.

SCENE: THE HOFFMAN HOUSE BAR

A burly bartender wipes the ornately carved bar. The player of the videodisc enters the bar (camera point of view conveys the feeling to the viewer of entering the bar). The bartender looks at the camera (the player) and asks, "What will you have?" Three choices appear on the screen:

1. Harvey Wallbanger
2. Scotch Whiskey
3. Shot of Rye with a clam juice chaser

The correct answer is 3. Shot of Rye with a clam juice chaser. Harvey Wallbanger's were not invented yet. Scotch Whiskey did not become popular until the late 1880s. People took their drinks "neat" in the 1870s. If the player makes the wrong choice, he is grabbed by the bouncers and thrown from the bar, losing valuable time as well as information he would have learned if he had remained in the bar.

In order not to be taken for some strange alien being, the player must learn how to dress, travel, talk and observe the social customs of the 1870s. The player cannot use 20th century

customs in this gas lit era. Further, the player must be able to process the information on the videodisc and construct a series of maps, read timetables of horse trollies and ferry crossings, and follow floor plans of buildings in order to stop the anarchists. Along the way, the player meets and questions historical characters of the era. They may or may not be involved with the anarchists - this is part of the puzzle the player must solve.

After the player has read and analyzed the social scenes, scanned rooms for clues, masqueraded as a detective of the period and cracked the safe of the County Court House, he then must make a series of quick decisions that will program the microprocessor in the videodisc and, in effect, edit a final sequence on the disc. If the player has chosen the correct answers, the videodisc will show a sequence in which the anarchists are captured. If the answers are not correct, the videodisc will show a sequence in which the city burns to the ground.

CHICANERY-AND FRAUD

Chicanery And Fraud is an educational adventure game to be played on personal computers. Content consists of text and graphics. It relies heavily on the information assembled by the research team in their work for the core program.

The player of this personal computer game is an Investigator for a detective agency in New York of 1871. The city is ruled by the iron fist of Boss Tweed and his devious cronies. The player-detective must solve a mystery and expose the fraud and corruption that is draining the city of millions of dollars and threatening the lives of its citizens.

As the game begins, the player wakes up in his boarding house room in Hell's Kitchen. It is 1871. At this point, he has no knowledge of the political system or everyday information known to everyone in the period. At the end of the game, the player will have acquired a rich store of knowledge about politics and everyday life in the 19th century.

The game follows a standard personal computer adventure game format of choices and decisions. On each move, the player can make a broad range of decisions: move left, right, north or south; pick up objects or discard them; and respond to questions.

The player is in a double incognito situation. He is a person from the 20th century transported back to 1871 and pretending to be an ordinary citizen. He is also a detective in 1871 working in an undercover role in order to fight against the Tweed Ring. The player can be discovered on two levels. First,

if the player is unmasked as a person from the 20th century, he will be placed in an insane asylum for they would not believe that he is really capable of time travel. For example, if the player asks a policeman for the nearest subway stop in order to travel to city hall, the policeman would become very suspicious since the subway was not built yet. If the player is committed to an asylum, he can get out in one of two ways: posing as a sane person of 1871 or escaping. In either case, the player has used up valuable moves in the game. The player may also be discovered as a detective and thrown into jail. Here too, he will use up moves in trying to escape and continue the investigation.

Clues to the Tammany Hall Ring are scattered throughout the fabric of the city, eg publications such as the Times or the Police Gazette. Eventually, the player learns the whereabouts of evidence that convict the Tweed Ring. However, before he can get the evidence, the player must vote in a municipal election; learn the lyrics of a popular tune; recover from a mysterious illness; discover a loophole in an unfair law; and decipher a message in Morse code.

This personal computer game follows real historical events in their correct context. A player who gets to the end of the game will have acquired a broad range of facts about the era as well as a sense of what it was like to live in the 1870s.

IX. STATION ORGANIZATION FOR MODULARIZATION PROJECTS

This section deals with planning, organizational and financial issues associated with the development of modularized program packages. For some public broadcasting organizations, those with strong in-house planning and financial groups, the discussion may appear rudimentary. It is intended for those individuals with minimal formal training in finance and planning who seek an introduction to these important issues and wish to understand their relevance to the new distribution environment.

Modularization requires careful planning, goal setting and financial management. Perhaps the first hurdle to overcome is the assumption, by some, that public television stations as nonprofit organizations need not or should not engage in formal planning activities associated with commercial organizations. A strong case can be made that the public broadcasting community has as much if not greater need to establish formal goals, plans and cost accounting procedures than its commercial counterpart. Public broadcasting organizations have by definition a broader value set than private organizations. Also, they have a fiduciary responsibility related to the general public good that compel them to carefully review plans and actions. These two qualities render a public broadcasting organization more accountable than a private group to demonstrate that funds for a traditional television program as well as a modularization project have been used appropriately and efficiently to meet

clearly defined objectives within the scope of public broadcasting's mandate.

A. Setting Objectives

A reasonable way to begin the planning and organization process is by stating objectives. For example, a public television station manager facing the question of whether to create additonal modules in order to extend the service life of a particular program may formulate the objectives, initially, as follows: this program should be modularized because it will enable the program to be seen by more people, will increase the value of the station to the public, and will result in increased cost efficiencies in its production. However, these general objectives must be translated into specific and measurable objectives for decision-making and evaluation, ie, how many additional people will be served and by what distribution means; how will the public's evaluation of the increased value be expressed (eg, viewing levels, memberships, letters, or phone calls); and, how can cost-efficiencies in production be measured?

It is important to engage in this process of setting objectives as early as possible so that the modularization activity can be integrated within the overall mission of the station. Further, it is necessary to formulate measurable (ideally, quantifiable) criteria for meeting objectives. Such articulation is desirable in order to determine how well subsequent actions are proceeding. These criteria are sometimes called

"decision criteria" because they provide a way to measure performance and generate the necessary feedback by which decisions can be made or modified. That is, how do you know that you are meeting objectives? The more specific the decision criteria, the better the position of decision-makers in evaluating the utility of a modularization activity and the organization's overall modularization strategy and plan.

B. Organizational Structure And Modularization

The component organizational units required to engage in program modularization (eg, program development, production and post-production) already exist in most stations. It is the efficient interaction among these units that is crucial for a successful project. How these pieces come together and, indeed, whether they come together is related, in part, to the role station management perceives for such a project. Is it a new fangled notion of non-traditionalists, a component of existing research and development efforts, or an integral element of routine operations? To the extent that the modularization activity is viewed as a radical idea and thought to have no direct relation with the organization's mission, it will likely be treated as an experiment, if adapted at all. The experiment may take place in complete isolation from the organization. This can have negative consequences in that the project may be left to dangle in the wind at the first indication of difficulty. Even if the activity is successful, it may never find a "home" at the station where it can continue.

A second alternative is that modularization may be viewed as part of the station's research and development domain. While apart from routine operations, modularization at this level is considered a potentially valuable activity but one that is too volatile or unpredictable. Analogously to pilot testing, a research and development role for modularization presumes that the activity can be valuable under certain circumstances. The job of the research and development unit is to figure out under which circumstances it makes sense.

At some stations, modularization can be organized as an integral element of routine operations - because they are already doing it. Here, a sufficient body of experience, information and capabilities exists to create a wide variety of program modules, each targeted to specific audiences and designed to take maximum advantage of the characteristics of the distribution channel. Under these circumstances, modularization activities stand a better chance of realizing cost-efficiencies, receiving help when difficulties emerge and continuing as an integral element within station operations.

The concept of modularization may call for a public television station to view itself in a new light. This in turn may influence everything else the station does. That is, a station may presently view itself as a broadcast and production organization. This is typical and immediately suggests that modularization activities should be situated as part of a research and development unit, if adapted at all. However, a

station that integrates modularization into its routine operations will likely view itself as a communications, education and information organization. Such a station is likely to be comfortable in dealing with co-ventures, licensing of rights, extended uses of programs in the new distribution environment, and marketing of ancillary products such as study guides. This is not to argue that a research and development unit is an improper place for a modularization effort. For example, a public television station that engages in modularization as part of a routine production operation may choose to manufacture its own video cassettes and market them, whereas a station that treats modularization as a research and development effort is not likely to attempt to vertically integrate manufacturing and marketing within the station. Decisions about vertical integration should be approached very carefully. Most public television stations have inadequate experience or resources to carry out tasks such as marketing. This suggests that many stations may wish to work with outside agents, commercial or nonprofit, to fulfill functions such as manufacturing and marketing.

Clearly, there is no single best way for all stations to organize a modularization effort. It is important however, to make organizational decisions consciously and to understand the implications of the decision for the operation of the project and subsequent potential continuation of modularization activities. By thinking through the likely strengths and weaknesses of the

modularization effort, based upon how it is situated within the organization, a station can anticipate problems and prepare for them.

C. Analyzing Modularization Opportunities

Once goals or objectives have been established for the modularization effort and a general assessment has been made about the role and location of the project within the station's overall organization, the prospective modules to accompany a core program must be subjected to rigorous analysis. Each core program may not lend itself to video cassette, videodisc, cable and other distribution media. This analysis may be viewed conceptually as a series of "screens" that will filter out modules that are not appropriate. For example, a station may group the factors into discrete, related areas of analysis such as the following.

- Production and operations. This might include: in-house skills, availability and interest; likelihood of technical success; resources and facilities required for development; project integration with ongoing projects; cost reduction potential by aggregation of production costs; availability of talent and creative materials; and quality control considerations.

- Financial. This might include: risk; asset utilization; cash flow; internal rate of return; payback period; and, promotion and marketing costs.

- Marketing. This might include: needs of consumers or educational institutions; potential audience reach; ability to market the product or service; market trends; pricing strategy; and, effect on current activities.

- Legal. This might include: rights, patents, and licenses; regulatory compliance; statutory compliance; liabilities; and contractual commitments.
- Strategic. This might include: meets long range goals; meets short range goals; timing needs; seasonal and competitive considerations; and, overall organizational image.

This list is intended to be suggestive. It can be easily modified to include other elements in the screening process. Further, one public television station or organization may consider some of these elements more important than another station or organization. It is necessary therefore to tailor the list to the needs of a specific group.

A reasonable way to organize the screening process is to split it into two phases. In the first phase, each department at a station might "score" prospective modules in relation to the list. In addition to the score, each department or selected departments may be assigned a veto power. For example, if the legal department is convinced that there are regulatory prohibitions or if the production department cannot handle the production requirements, the project might not be pursued even if the overall screening score is high. Any modularization project that survives the initial screening should be subjected to a more detailed analysis in selected areas, eg, market assessment and financial analysis. The intensiveness of this second phase screening should be appropriately scaled to the potential risks and opportunities associated with the modularization project.

Market research and assessment has a valuable role in the project screening process for a public television group. Its purpose is to enable the decision-maker to render an informed choice as to which competing projects or competing modules within one project have the best chance of success and thereby advance the program service objective of the public broadcasting organization. Equally important or more important than the market assessment is the financial analysis. Program modularization, like any program production activity, requires a commitment of financial resources. As such, a comprehensive screening process should assess which projects or project modules are the most financially sound and therefore merit a share of limited resources.

D. Capitalizing, Budgeting And Cost Accounting

The preceding discussion on project screening assumed that the public television organization had the ready capital available to invest in the modularization effort, ie, produce it and, potentially, distribute, market and sell it. Further, the discussion presumed the existence of an organizational superstructure and processes required to routinely plan, control and execute all of the complex activities necessary for the modularization effort to meet its various qualitative and quantitative objectives. Such structures and processes are in place at the majority of public broadcasting organizations. However, for those groups (or individual readers) who are less familiar with these processes, it may be helpful to review

how an intellectual property such as a novel or play may be turned into a program package and distributed via broadcast television, cable, video cassette, personal computer software, etc.

1. Capitalizing The Project

The process of capitalizing a project is often viewed by public broadcasting organizations as "fund raising." Indeed, viewing the process of securing these funds as a form of project capitalization may be alien to some public television stations. Nonprofit organizations in general have difficulties with the concepts of capital budgeting and capital investment for a few reasons. The first difficulty is one of evaluation. A nonprofit organization, typically, is unable to measure "payoff" from a given capital investment in terms of profit, but must instead view it in terms of social utility and value. Social utility and value are often difficult to measure. Further, nonprofit organizations face many external pressures as well as statutory and regulatory requirements when they make capital investment decisions. Within the past two years, as public broadcasting organizations have sought to diversify their services and revenue streams, Congress, NTIA and the FCC have imposed social utility requirements to ensure that the public mission of these organizations remains their primary objective. Similar requirements have been imposed by some states and local authorities.

A second difficulty nonprofit organizations face relates to their source for capital investments. Nonprofit organizations typically do not have equity and only the largest and most

established of them can use debt financing, eg, utilities. Consequently, most nonprofit groups rely on bequests, grants, and fund raising drives to accumulate the funds needed for capital related activities such as equipment purchases and program production. The timing and amount of these funds are often unpredictable and their use may be restricted. Further, many of these funding sources cannot be tapped continuously. If they are not available at a given moment, the organization may be forced to abandon or defer expenditures it considers to be of prime importance.

The third difficulty associated with capitalization results from traditional nonprofit accounting practices in relation to long term investments. For example, until recently most nonprofit organizations did not record depreciation of long term assets, either externally or for internal use. As a result, many of these organizations did not plan for capital maintenance activities and facilities deteriorated. Even when capital maintenance was planned, organizations often failed to account for inflation.

These difficulties all touch on the capital budgeting process for public television stations. They suggest that stations' capital problems will proliferate in an environment of rapid equipment changes, variable formats for distribution of programming, and opportunity "windows" for new projects. It does not mean that capital budgeting techniques cannot be adapted to nonprofit organizations such as public broadcasting. In spite of the inherent difficulties in using these techniques,

they can (when appropriately adapted) help stations to plan and control projects in the complex new distribution environment.

2. Raising Capital For A Modularization Project

Traditionally, a public broadcasting group has raised the money necessary to produce a program via grants or related fund raising appeals to foundations, corporations and individuals. More recently, some stations have actively pursued the sale of foreign broadcast, print and music rights in order to raise the capital necessary to complete production for public broadcasting use. This form of "presale", commonplace in the film and commercial broadcast industries, is likely to grow in importance for public broadcasting organizations.

If a public broadcasting organization views the production of a program and associated modules as the creation of real property, it is a relatively short step to realize that there are individuals and organizations who may be interested in owning some of that property. This approach to raising the risk capital needed to produce a program has many variations. In some instances, individuals and organizations are given the opportunity to purchase limited partnership shares or stock in either the producing organization or the production project. In "presales" arrangements, the principal owners of the program may raise capital by trading away the rights to certain types of distribution, eg, cable, foreign broadcast or video cassette. Presales arrangements have evolved into a very complex exchange system based upon the concept of distribution "windows"

necessitated by the emergence and growth of new communication technologies. Presales may involve time periods or number of showings; order of use in relation to other means of distribution; format rights; and geographic rights; among other rights or uses. For example, in making a typical presales arrangment with a pay cable distributor, guarantees are offered that restrict the availability of the program to basic cable or broadcast television (ie, downstream exclusivity). The pay cable distributor wants to be able to offer the program on a "first run" basis. If individuals have the opportunity to view the program elsewhere at no cost, they are unlikely to pay the cable operator as high a price, if any price at all. In a few instances, major public television series have been distributed on pay cable prior to broadcast on public television (eg, The Mysterious Stranger in the Mark Twain Series was carried by HBO prior to PBS broadcast).

A broad variety of private sector approaches to the raising of capital are available to public broadcasters, if organized appropriately and with attention to the laws and regulations governing a public television station's activities.

3. Budget Considerations

The budget for a program modularization project should, in most instances, track closely with a typical budget for the production of a normal public television program. This reflects realities of the production process. That is, most of the core program material from which the modules will be

created are produced principally for general broadcast by a public television station. Therefore, most of the funding for the core materials are likely to come from standard sources and budgeted in a traditional manner. This process will in turn drive the budget organization for the modules.

A typical program production budget contains the following cost items or categories.

- Talent and rights. This includes on and off camera talent; musicians, composers, arrangers and conductors; license fees, rights, and royalty fees for literary works; union and guild fees; and music rental.
- Production staff. This includes salaries and benefits for all personnel directly associated with the production.
- Facilities. This includes costs for studio rental, remote shooting, plant and facilities required for production and post production.
- Design and staging. This includes costs for the design and construction of sets, artwork, props and scenery.
- Materials. This includes the costs for film or tape stock for production and post production activities.
- Other. This may include costs for staff travel and per diem; rental and storage of miscellaneous production items; transcript services; insurance; and special effects.
- General and administrative. This includes indirect costs associated with the general support and management functions provided by the producing agency for the production.
- Promotion and public information. This includes costs for press kits, design and layout of ads, and media buys for the the dissemination of program related information to the public.

- Marketing. This includes all costs related to the sale of the program at all levels.

This standard budget categorization could be used to cover the creation of any type of program module, from an instructional video cassette with ancillary print materials to an interactive cable program. The primary issue and problem in formulating budgets for program modules is how to standardize cost treatments for the creation of materials that are anything but routine at the moment. This issue has two variants. First, although many program modules, eg, cable and video cassette, rely on the same type of activities associated with broadcast program production, module production for these distribution paths is relatively novel at present for most public television stations. Second, a few of the program modules, eg, videodiscs, require "high tech" production or post production activities that are still in flux and have yet to be standardized.

Problems associated with the former group of modularization issues will recede as public television stations climb the learning curve and routinely produce for multiple forms of distribution. Until then, the problems that are likely to be experienced , eg, lack of cost, quality, and level-of-effort standards are probably manageable as long as proper record-keeping is undertaken. This can help to build an accurate body of knowledge about what it costs a station to produce various modules. During the interim, it will also be important for a station to exercise caution in allocating costs for the production of other-than-broadcast modules and ensure that

the core program bears its fair share of costs. Generally accepted accounting and budgeting principles require accurate and appropriate allocation of costs to the specific project or module.

The budget problems associated with a "high tech" module can be perplexing. For example, there are likely to be research, exploration and development objectives of the public broadcasting organization as a whole mixed with and, possibly, the driving force behind the production of the high tech module. Lack of cost standards for such research, exploration and development costs is typical. One way out of this problem is to keep clear the distinction between the research, exploration and development objectives and the program production, distribution and marketing objectives that the organization has for the high tech module. Organizational placement of the modularization project can facilitate this differential treatment, ie, basic research, exploration and development functions can be separated from routine production and associated packaging and distribution activities.

4. Cost Allocation And Accounting Considerations

Budgeting and cost allocation methods are dependent upon each other. Without effective cost allocation methods it is difficult to construct an accurate budget for a modularization project or a standard television program. While the cost allocation and accounting methods routinely used by public broadcasting organizations are adequate for program production,

modularization introduces production processes that are generally alien to most public television stations, eg, manufacturing and volume requirements associated with a video cassette project. Below, a few issues relevant to modularization and cost allocation methods are outlined.

a. Full And Variable Costing

For budgeting purposes, full costing is often associated with fixed cost budgeting. Fixed costs are defined as those costs that do not change over a substantial range of operations or for a given time period. Fixed costs can be further divided into committed fixed costs, eg, basic organizational costs, and discretionary fixed costs, eg, costs that are controllable from one period to another. In terms of a budget for a modularization project, fixed costs cover items or activities that are essential to the production and distribution of the modules. Thus, proponents of full costing believe that these costs should be included in the cost of project modules.

Variable costing is based on the concept that those costs assigned to a product (here, a program module) should be only those costs that vary with the production activity, eg, costs such as direct labor and materials required to produce the module, but that vary with the level of production activity.

Typically, public broadcasting production budgets do not explicitly use full and variable cost categories. They rely instead on cost allocation and budgeting through the use of direct and indirect cost categories. This latter classification

system for budgeting and costing is readily applicable to modularization. Direct costs are those costs that can be clearly identified with the cost objective. Therefore, all variable costs are direct costs. Indirect costs are those costs that cannot be clearly identified with a single cost objective. Therefore, they must be allocated among the various cost objectives to which they apply. Indirect costs are roughly analogous to fixed costs.

Full and variable costing each have advantages and disadvantages for program modularization. In the short term, variable costing provides more comprehensive and relevant management data regarding the effect of changes in module production and pricing as well as the impact of variable cost reductions brought about by increasing production capacity. Over the long term, full costing lends itself better to modularization to the extent that levels of activity remain reasonably constant. Equally important, full costing of fixed production costs are included in inventory and will result in higher income figures when manufacturing costs of a video cassette module or ancillary print materials exceeds revenues during any given period. Using variable costing, inventory is charged against current sales revenue.

b. Overhead

Production overhead is one of the more difficult budget and cost figures to determine. This holds true for program production generally. Since modularization compounds the basic difficulties in program budgeting, costing and management

there is an even greater need to develop a useful method for determining overhead. The following steps and decisions provide a reasonable method for determining overhead for a modularization project as well as many standard productions: 1. determine variable and fixed cost categories; 2. select departments that will be included in production costs; 3. budget controllable expenses by department; 4. budget indirect expenses; 5. collect data necessary to allocate indirect expenses for departments; 6. allocate indirect expenses to production departments; 7. redistribute service department costs to production departments; 8. select appropriate base for assigning overhead to module costs; 9. determine activity level; 10. calculate overhead rates; and, 11. assign overhead to module cost.

Steps one through six are normally performed during the budgeting process. Since the overhead component of a budget identifies the expenses that are directly controlled or influenced by the appropriate operating level of the organization, costs such as benefits, plant and equipment depreciation and utilities cannot be directly assigned to a particular department. They can however be assigned to each department based upon either the benefits received or a selected causal relationship. There are many procedures for allocating indirect expenses. They may be grouped into the following general categories: payroll, labor, space, activity level, investment value and consumption level. For example, fringe benefits are normally allocated on

the basis of payroll dollars or hours; depreciation is often allocated on the basis of department square feet; etc. In practice, the selection of the appropriate overhead allocation statistic is dependent upon an ability to obtain relevant data. Further, since overhead rates are calculated only for the production function, service department costs must be redistributed, based either upon a causal relationship or on measurable benefits received by the production department. There are a few methods for making this determination, eg, direct, sequential and cross allocation methods. The selection of the appropriate base of activity for assigning overhead depends upon the activity that is used to measure production effort and cost relationships. For example, equipment related costs such as depreciation and maintenance can be allocated to specific program modules based upon the simple measure of machine-hours required to produce the module.

The final step in calculating overhead is to determine activity levels for the modules. There are four methods that may be used for estimating production activity levels: theoretical capacity, assuming maximum efficiency with no allowance for down time; practical capacity, reflecting an allowance for maintenance and some idle time; normal capacity, based upon average demands over time; and expected capacity, representing the capacity required to meet current, budgeted production levels.

E. Project Control Systems

The production of a program package with several modules will likely involve hundreds and perhaps, thousands of discrete tasks. Each of these tasks or activities are highly interdependent. Each must be accomplished if the program package is to be completed and, often, they must be completed in a particular order, within a specified time frame and within planned budget parameters.

Over the past few decades, a number of control systems have been developed to aid in planning, organizing, budgeting and scheduling complex projects. These control systems or processes are intended to assure the efficient completion of tasks within stipulated cost, time and quality parameters. It is beyond the scope of this report to provide a review of these techniques. However, it is important to stress the need for project control systems. Modularization and the new distribution technologies will move public television stations into a more complex business environment, one that requires sophisticated management techniques.

X. NEGOTIATING FOR MULTI-MARKET TELEVISION PRODUCTIONS

A public television producer who seeks to develop a programming package with modularized components for several markets must negotiate with many contributing parties. This can be difficult since precedents are limited and multi-market contractual arrangements are often quite distinct from one case to the next. Rather than present a set of rigid rules for dealing with contributing parties such as authors, actors and unions, it may be more helpful to outline a general strategy by which a public television producer can approach the negotiating process. The following are guidelines for developing such a strategy.

1. Survey the potential markets for program modules. Define the markets broadly in terms of the rights to be negotiated, but not excessively. Be ready to cut back if necessary.

2. Survey industry-wide agreements that may apply in those markets where program modules are to be distributed. Obtain copies of the national public television agreements relevant to your contributing parties and inspect copies of non-network commercial television agreements that touch upon the "supplemental markets" you plan to serve. Become familiar with costs and terms.

This set of guidelines was prepared by Thomas Gherardi, Deane, Snowdon, Shutler and Gherardi.

3. You will have to negotiate with many contributing parties to the project. Start with the contributing party whose work is most essential to your project. For example, this might be a famous author whose name will help in attracting others to the project. Inspect any industry-wide agreement that covers him for all or any of the market uses you plan.

4. Negotiate for the broadest possible nature, scope and duration of rights you can imagine using. At the same time, remember that these will probably get cut back in negotiations with this contributing party or the next. Explain why the property in question is ideal for the proposed distribution.

5. Negotiate for "step-deal" payments on new uses, markets and license terms. That is, you as producer will pay a predetermined additional fee for each new means of distribution or market. You may have to offer slightly more than usual for basic public television rights to achieve specific options to make "new" programs from taped materials, to add nonfunctional or geographic markets, or to extend use periods at predetermined prices - payable only upon each new use, or market, or extension of term.

6. Be prepared to give up a share of your net -- not gross -- receipts from new markets. Anticipations of financial success in multi-market projects are often higher in these pre-production negotiations than the reality of subsequent revenues. You can

demonstrate flexibility on this point in order to reduce upfront cash payments and secure new uses, markets and times.

7. Accept reasonable limitations on the times within which you must exercise your options, especially if you are seeking "exclusive" rights. Contributing parties, especially authors, fear having their properties gather dust on some producer's shelf in the form of half-paid-for options.

8. Begin your negotiations, quietly, with the next most critical (or better) the toughest remaining contributing party before you conclude them with the most critical party. Leave a little "drafting time" in your first deal so that you can test the waters of the "second" deal.

9. Follow suggestions 4-7 above for this and all succeeding negotiations with contributing parties.

10. When you are making "nonscale" payments to a union or guild member, and he or she agrees, overscale payments, especially those paid in advance, may often be set-off against payments required for supplemental market use.

11. When local unions or guilds seem inflexible, approach the nationals, especially if your contributing party is sympathetic to your purpose. Seek a waiver to accomplish your purpose.

12. Often, half a cake can be better than none. If you cannot get six year foreign rights, accept the three they

offer realizing that in three years a new approach may find a better reception.

13. Be careful about playing one union or guild off against the other. Cross-jurisdictional rivalries can be especially keen on "new uses."

14. Low-key your negotiating successes. The contributing party down the line from the one you just struck a favorable deal with is ready to cut back on the gains you are bragging about.

15. None of these suggestions are a substitute for sound legal counsel. Let an experienced lawyer do your negotiating or, at a minimum, the drafting of contracts and agreements. New markets mean new contract language, copyright issues, payment mechanisms, and warranties. Your attorney has a duty to keep up with these changes.