

What is Pay Television

Pay or subscription television (STV) is a means of providing additional and specialized programming for a fee. The FCC has never adopted an official definition of subscription television by cable, but has stated that pay cable is "akin to" a per program or per channel charge above the normal monthly Cable TV subscription fee.

Pay cable has been tried only in a few experimental situations. But when CATV systems are built in the nation's major metropolitan markets, pay cable will offer subscribers a diversity of communication services, and provide entrepreneurs with a lucrative new field.

Initially subscription television by cable will provide greater options in entertainment—particularly first-run

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An Overview of Pay Cable Television

films and sports events. Later it will offer specialized programming, such as refresher workshops for doctors; ultimately it can offer a wide range of services like monitoring security alarms and remote control of household equipment.

Briefly, this is how the pay-cable TV system works. Scrambled signals are sent from the central headend (transmitter) to all subscribers. The subscriber's TV set is equipped with a converter which decodes the frequencies of channels carrying special programming. A different code is used for each pay channel or program. If the subscriber has ordered a particular program or channel, the scrambled signal will be decoded by the converter and the subscriber will receive the program. If the subscriber has not ordered the program or channel or tries to watch it without authorization, the converter will not unscramble the signals.

Pay Cable—Past and Present

For twenty years broadcasters, film studios and theatre owners have been pressuring Congress to severely restrict or completely prohibit pay television. In 1968-1969 the issue burst forth into a bitter public struggle when theatre owners across the country put slogans on their marquees and passed out petitions to



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“save free TV.” One animated short showing the specter of pay TV taking advantage of the unsuspecting public was widely circulated.

Pay television has been tried in two or three experimental projects on over-the-air stations and on cable. All have failed. Pay television has yet to be instituted as a regular service by a cable system anywhere in the country. But the technology needed for such a system already exists. More than likely it is only a matter of time before the first system is installed.

The arguments against subscription television, whether over-the-air or cable, are much the same. The National Association of Broadcasters (NAB) and National Association of Theatre Owners (NATO) have spent twenty years fighting STV. Theatre owners predict that STV will diminish their already dwindling audience. On the other hand, film distributors believe STV will provide a new market for their product; but until pay TV is established, they cannot afford to alienate over-the-air broadcasters, their current biggest buyer. The NAB contends that pay television in any form will “siphon off” programming from “free” TV. For example, if Flip Wilson were offered more money by the owners of pay TV than by a network, he might take his program off the network stations and onto pay TV. Then only viewers who paid a special fee could receive The Flip Wilson Show. If enough performers followed suit, viewers would end up paying special fees for TV programs they used to see for no charge. The NAB further argues that the greatest financial burden will fall on those viewers least able to pay, the low income groups.

The argument about “free TV” is not completely accurate. Actually the consumers of television fare do pay for the programs they watch—only they pay indirectly, through the increased price of goods advertised on television. Advertising expenditures which support network television show up as increased prices of the goods advertised. It could be argued that pay television offers consumers the opportunity to buy the entertainment they do want, without purchasing advertising which they do not want. If the returns from advertising on television were diminished as a result of STV, presumably advertisers would decrease their expenditure for advertising and competition would force them to reflect this savings in lower prices. On the other hand, if consumers prefer to have advertising, there is no reason that an STV system could not finance a substantial part of its production costs by carrying advertising, as newspapers and magazines already do.

STV opponents want Congress (rather than the FCC) to abolish or at least severely limit the scope of operation of all forms of pay TV. Proponents of subscription TV state that their function is to provide viewers with the option of watching superior or special programming for which they would pay a per program fee. This might be special college courses, first-run movies, or a refresher course for professionals or special sports events, just to name a few alternatives.

Thus in the STV controversy, the FCC has been caught in the middle. The FCC took no action until February 1955 when it issued a Notice of Proposed

Rulemaking¹ requesting the views of interested persons on the question of whether the Commission had the power to authorize subscription television and, if so, whether the exercise of such authority would be in the public interest. In October, 1957, after reviewing the comments filed, the Commission issued a first report on subscription television,² concluding that the Communications Act of 1934 empowered the FCC to authorize pay TV. It also concluded that an extensive trial operation should be initiated to determine whether subscription television would serve the public interest.

The idea met with strong opposition from broadcasters and theatre owners. Several pieces of prohibitory legislation were introduced in Congress and the House Subcommittee on Communications adopted a resolution against the authorization of STV.

In a second report³ issued in 1958, the FCC postponed processing applications for trial authorizations until Congress considered public policy questions on subscription television. A third report⁴ issued in 1959 announced the Commission's readiness to consider applications for trial authorizations.

The first application for a STV license came in 1951 when the Zenith Radio Corporation tried to persuade the FCC to authorize an STV experiment. The FCC took no specific action until 1962 when it finally authorized a seven-year pay TV experiment in Hartford, Connecticut. The FCC's power to authorize this experiment was upheld by the Court of Appeals in March, 1962. The Supreme Court declined to review the decision.⁵ WHCT was licensed to RKO General, Ind., which ran the experiment in cooperation with Zenith Radio Corporation and Teco, Inc., its patent licensee. Its sole purpose was to offer “programs of box office quality . . . which are not now available on free TV.” The experiment was a financial failure. It also offered less cultural programming and more general entertainment than had been generally expected. In addition to the normal rental and installation charges, the average per program cost was slightly over one dollar per showing regardless of the number of viewers for each set.

In its first two years, the station offered 599 different programs; most were repeated, so that the station actually provided 1,776 separate presentations which fell into the following categories:

Movies	86.5%
Sports	4.5
Education	3.5
Special entertainment (ballet, opera, Broadway plays)	5.5

An experiment in Bartlesville, Oklahoma in the early 1950's, which consisted of sending pay TV by cable was also a financial failure. The only other experimental system of pay TV by cable was stymied before it ever got started. In the early 1960's, about the same time Hartford was trying STV using over-the-air signals, Sylvester (Pat) Weaver and associates set up a 3-channel wired pay TV system in California. Theatre owners were able to get enough signatures to put the project up for referendum on the ballot. The public was told it would have to pay for what it was presently seeing for free and the project was defeated at the polls. Later the Supreme Court of California found the referendum unconstitutional,⁶ but Weaver had already gone broke.

Despite these financial failures, the FCC decided in 1969 that "subscription television provides a beneficial supplement to the television program choices now available to the public"⁷ and gave its official blessing to STV.

To ensure that subscription television would not be furnished at the expense of free television either by siphoning off the types of programs now available free or by reducing the amount of free programming available, the FCC adopted a series of rules in 1969 governing the content of pay TV. These rules prohibit pay systems from carrying serial programs (such as Mission Impossible) or sports events (such as The Super Bowl), which have been carried live on conventional television in the two years preceding the start of STV in a television market. Special events such as the Olympics which have previously been televised on conventional TV are also prohibited from STV. The FCC further stipulates that all films on STV must be first-run and less than two years old. In addition, STV must devote 10% of its programming to offering other than sports and film.

Technology of Pay Cable

Cable operators could offer two types of subscription systems—subscription television and multi-purpose systems. Subscription television would provide additional programming choices; multi-purpose systems would provide a variety of services and eventually would give the subscriber the capability to originate his own audio and video transmissions. Both operate on the same premise—that specialized programming can be restricted to only those viewers who have paid for it.

All subscription systems include a *scrambler* or *encoder* which scrambles the program at the transmission end and a *converter* or *decoder* which reassembles the program at the subscriber's end. The converter, which may be rented or bought, is attached to the subscriber's television set. A multi-purpose system also includes a *transponder*, a mechanism which can switch any piece of equipment in the subscriber's household which has an on/off control.

Subscription Television Systems

Subscription systems have not yet been marketed for the homeowner; however, several versions are currently being installed in hotels and motels. One such system uses the hotel's master antenna (MATV) to transmit three TV signals at frequencies below standard channels. One of these channels, which all guests can receive, carries free program information. If the guest decides to watch one of the pay programs (usually a first-run movie), he calls a special hotel clerk who sends the desired program to the room on one of the two remaining available channels. The fee is automatically added to the guest's hotel bill. This system is currently being installed in hotels throughout the country by Columbia Pictures, Inc.

A home system, marketed by Optical Systems, Inc., will be tested in early 1972. It utilizes a black box which would rest on top of the subscriber's TV set and operates electronically when a plastic card the size of a credit card is inserted into the box. One card might serve as a season ticket for pro basketball telecasts, another would decode a channel for current movies, a third for children's programming. The subscriber is offered a variety of services. He can select as many or as few as he pleases and is charged a fee according to the number of services selected.

Multi-purpose

Multi-purpose systems all consist of a computer controlled *central station* located at the CATV system hub which controls the flow of digitally coded messages to and from the remote subscriber locations. The central station transmits a series of digital messages each preceded by a unique address code. For each message transmitted, only the subscriber corresponding to the address code transmitted actually receives the message. A response is immediately transmitted from the subscriber's terminal to the central station. The process is repeated with every station. The response message from each station can contain information requested by the central station, by the subscriber or between subscribers. Even though the subscriber terminal can transmit only when interrogated, the rate of questioning is sufficiently fast (several times per second) to give the impression that the subscriber is actually initiating the transmission of information. Because of the constant monitoring, these multi-purpose systems can offer a variety of "watchdog" services including monitoring alarm circuits, remote control of home appliances, data

transmission and opinion polling.

Widespread use of multi-purpose systems is still several years away, because these services require sophisticated two-way cable systems which only a few cities have yet built. However, several companies have developed multi-purpose systems. One version currently marketed offers a security system which monitors burglar and fire alarms and temperatures of home and industrial freezers, reports empty propane and butane tanks, conducts yes/no opinion polling, monitors gas pilot light outages or dangerous concentrations of gas, temperature and pressure gauges on industrial boilers, offers TV set channel selection, pay-TV accounting, and monitors the status of the cable system itself.

With its high-speed central computer the system monitors each transponder every five seconds, or 17,000 times every 24 hours. With slight modifications it can provide interactive teaching and game playing, central message and wake-up services, industrial lighting control and a host of additional services. This system is not unique. All two-way cable systems have this potential and several versions are currently on the market.

Multi-purpose systems are currently in use on all Boeing 747 airplanes. The passenger entertainment system for the entire plane is run by an onboard computer which monitors the channel selection system of every seat as well as controlling the lights and oxygen supply for every seat.

Economics—Will it Pay?

Subscription service via cable will be a fact of life in the near future. Cities are installing cable systems, the FCC is accepting the responsibility of regulating them and the technology for more advanced systems is presently at hand. From the subscriber's standpoint pay cable is economically attractive; from the owner's standpoint it is economically lucrative.

In the home subscription system marketed by Optical Systems, Inc., the subscriber pays approximately \$1 per month for the black box and \$1.25 for each first-run film viewed. If the same individual took his family to see the same film in a theatre, the cost of a babysitter, parking, tickets and a snack could easily run \$15. So while the TV screen is smaller, the price is right. Any number of viewers can watch for the \$1.25 fee. And there is the comfort and convenience of watching at home.

Subscriber television allows the home viewer to watch events he would ordinarily be excluded from. Take sports. Season tickets for the Milwaukee Bucks have not been available since Kareem Abdul Jabbar (Lew Alcindor) joined the team. Subscription television could make the games available to home viewers at a moderate fee. The Bucks would profit by having a larger audience available and by sharing the subscriber service's revenues from the home viewer. The same principle can be applied to symphonies, operas, extension courses and numerous other events. Unlike advertiser supported programming, pay cable reflects the subscriber's viewing preferences. His program charge directly pays for the program.

The key to the financial success of pay TV lies in the success of marketing sports and entertainment programs. For example, the Muhammed Ali-Joe Frazier fight held in March, 1971, took in \$15 million on closed circuit television, at anywhere from \$10-\$30 per ticket. If the next fight is offered on cable at \$3 per home and if 75% of the 5 million cable homes watch,⁸ the gross income

SUBSCRIPTION SERVICES AVAILABLE ON CABLE

Subscription Television

- First run films
- Sports
- Educational services
 - Extension Courses
 - Workshops
 - Professional Refresher Courses

- Informational Services
- Stock quotations
- Data communications

Multi-purpose System

- Utility home control
- In-home diagnoses
- Household management
- Centralized bookkeeping
- Checkless banking
- Credit checking
- Reservations
- Two-way education
- Home shopping
- Security alarms

would almost double. In the future, when most of the country is wired, income will soar. If half today's 61 million television homes had watched a similar fight, the gross income would have exceeded \$60 million. Cable does not presently have this kind of penetration, but investors estimate that 25-30 million homes will be wired by 1980.⁹

Investors are so certain of the widespread development of cable, Time-Life has begun shifting its emphasis in electronic communications from broadcasting to cable and cassette television, and in December, 1971 acquired an equity position in Computer Cinema. West Coast multimillionaire Jack Kent Cooke, one of the promoters of the Ali-Frazier fight, owns 500,000 shares of TelePrompTer, the nation's largest cable system.

Movie theatre owners and film studios will closely watch the success of subscription entertainment. Despite their fight to prevent subscription television, they can view it as their potential saviour. Every film studio is showing deficits. Audiences have diminished 66% since 1956.¹⁰ Admission prices have risen 300% in the same period. A recent study showed that the median age of a person attending a film was just over 20. There is a potential audience of 96 million adults 30 and over who do not now attend films. Hotel occupants, whose median age is 42, are among this group.¹¹

In an attempt to lure them back to films, Columbia Pictures, has unveiled a hotel system similar to that owned by Time-Life and Computer Cinema. The system is slated to be installed in 80,000 rooms in the Regency-Hyatt chain in 1972. The hotels should profit from increased occupancy rates (in a marketing test of the Computer Cinema system, motel occupancy increased from 48% to 64% because of the films) and from revenues brought in from the services required by guests staying on motel premises in the evening. Columbia makes its profit by charging what the market will bear (\$2-\$3 per film) despite the fact that the company does not have the financial overhead of a theatre owner. Twentieth Century Fox, which has also shown interest in these systems, will be the major film supplier for Computer Cinema.

Sidney Dean, Chairman of Americans for Democratic Action and spokesman for the American Civil Liberties Union estimated in a hearing before Congress that the volume of communications services and products marketable on pay systems, especially on cable, will range between \$40-\$60 billion a year within five years of the establishment of a national cable system.¹² This compares to the current total revenue of the television industry of about \$4 billion a year.

Programming

The length of time needed for cable to become an established institution depends on operators' ability to get financing and to prove that they can attract subscribers. So programming is an essential factor. We are assured of the technology because it is already here. But programming is still being developed.

Ultimately content is the name of the game. It will determine whether a cable system can serve the nation's diverse needs. The answers to what will be offered on pay cable and when it will come will be determined by the success or failure of the initial subscription systems.

Interest in subscription services is broadening. Recently several media organizations have considered developing pay television. The first indicator occurred in September, 1971 when Sterling Cable, Inc., a subsidiary of Time-Life, Inc., asked the FCC for an interpretive ruling on a dispute between Sterling, which has the cable franchise for the southern half of Manhattan, and the New York City Department of Franchises. The dispute was whether Sterling could charge extra for special programs, a practice which ran counter to its franchise agreement. In a major policy decision the FCC indicated that any cable system could make per program charges regardless of the contents of the local franchise agreement.¹³ Since then Sterling has stated that it is "actively exploring" the possibilities of subscription programming.

Since January, 1972, three organizations have announced plans for home subscription systems. Sterling Cable of Hicksville and Plainview, Long Island is now giving its customers a choice of two services. For a \$3 monthly fee a subscriber receives 12 stations, a weather channel and a channel programmed by the Board of Education. For an additional \$3 he receives five more stations, a UPI news channel, a channel for sporting events from Madison Square Garden and a channel for films.

Telepremier International, headed by Dore Schary, executive vice president of MGM & RKO, has announced "Theatrelevision" for home movies. And Optical Systems is introducing its own system in the San Diego, Santa Barbara and Bakersfield CATV systems. Television

stations in Chicago (WCFL), Boston (WQTV) and Detroit (WXON) are also considering subscription systems. Gridtronics, Inc., a subsidiary of Television Communications Corp. (TVC), a cable TV company serving 70,000 subscribers in ten states, is considering marketing a converter which will provide four additional programmed channels to standard TV sets. One will be an entertainment channel showing uninterrupted films; another, an instructional channel to teach all levels; a third, an informational channel on contemporary subjects; and, the fourth, a professional channel which only doctors could subscribe to.

Later when multi-purpose systems are in general use, the emphasis will be on services, rather than entertainment. These services will alter the economic, political, social and cultural habits of the nation. Among the services which will be commonly available are in-home shopping, two-way education, reservations, credit checking, checkless banking, centralized bookkeeping, library services, audience polling, highway surveillance, household management and patient monitoring.

A few examples. A possible medical service frequently discussed is a medical vest a person at home puts on. It instantly reads body temperature, blood pressure, respiration, heartbeat and other statistics and sends this information to diagnosticians in the hospital clinic who can then advise the patient. Such a device would be a considerable boon for the elderly.

A housewife who wants to know the local specials at her favorite store, can dial its number, see the sale items on her screen and order by punching her credit card number into the system. The item is sent out and the sale is automatically billed.

These services will offer subscribers savings and convenience. But its greatest potential impact lies in its use by larger units of society. By offering a lower rate, utility companies could induce customers to hook up their major appliances to the cable system. The utility could operate by remote control all of its customer's nonessential equipment (lights, air conditioners, water sprinklers, etc.) by turning them off during the day when no one is home, then turning the equipment on again in the late afternoon. The customer would get lower rates, the utility could better manage its power supply, particularly during peak power periods, and would invest less in new generating equipment. From an ecological standpoint there would be better management, less pressure on resources and less pollution. Such services would be available to whoever wanted them. Subscribers would not have to take any service they did not want.

Issues at Hand

Every new technology has the potential for exploitation as well as public benefit. One of the biggest issues concerning cable television will be the invasion of privacy. Every two-way (multi-purpose) cable system enables the cable operator to monitor individual sets. A subscriber's program choices and services used can be easily surveyed without his knowledge.

Large cable systems will have data banks with information about all its subscribers. While it is not yet a practice of cable firms, there is nothing to prevent these companies from selling or trading lists of subscribers and pertinent personal data without the knowledge or permission of the subscriber. In fact, this is already a common occurrence in other industries. Publishers sell subscription lists, certain states sell motor vehicle lists and the Post Office freely hands out anti-obscenity lists.

Obscenity is another issue. Should pornographic material be allowed over cable television? The general response from the industry and regulatory agencies is a tentative yes, provided that the cable system includes some method of *positive subscriber control* where the subscriber takes some positive technical action (turns a key, opens a lock or dials a combination) to receive the program. In the home subscription system developed by Optical Systems, Inc., if the subscriber does not want to see something, he takes his plastic card out of the box. So if he doesn't want his children to watch a certain program he can make sure they don't. There is no need for self-appointed censors in this system as there is in regular film and television.

Public access to programs will be another important issue. Should cable owners, programmers or advertisers be allowed to decide which of their subscribers will be allowed to see any given presentation? Let's take a problem that currently exists. Doctors in Louisiana can watch on cable films related to various medical topics. The films are produced and paid for by drug companies. The general public is not offered the option of deciding whether it wants to watch or not. With public access prohibited, the doctors can maintain their closed professional group. The hard sell (or soft sell) techniques of the drug companies are beyond the scrutiny of the general public. And the public is denied the benefits of watching and perhaps gaining some useful information.

As with any new industry, policies and price structures have yet to be decided. In the MATV field, the industry is charging what the market will bear rather than cost plus a reasonable profit. What the effect of these pricing policies will be on future costs of entertainment is yet to be determined, but is worth some consideration.

Values under Scrutiny

Cable technology will provide custom made services and conveniences. But, like its predecessors, the car, the airplane, the telephone, the TV set, and the satellite, it will also be a redefiner of social, political and economic boundaries. Thus, for the next decade it is sure to be a prime area of controversy in the Courts, the FCC and Congress. Cable could give us services only written of in science fiction; it could also produce the Orwellian nightmare long before 1984.

1. 20 F.R. 988.
2. 23 FCC 531.
3. 16 Pike and Fischer, R.R. 1539.
4. 26 FCC 265.
5. *Connecticut Committee Against Pay TV v. FCC*, 301 F.2d 835 (D.C. Cir., 1962) *cert.denied*, 371 U.S. 816.
6. *Weaver v. Jordan* 411 P. 2d 289, (Calif. 1966).
7. 15 FCC 2nd 417 (1968).
8. FCC figures released March 3, 1972 report that as of January 1, 1972 there were 5,008,580 cable subscribers. FCC News Release, March 3, 1972.
9. Interview with Tom Wilson, Public Information Director, National Cable Television Assoc., Washington, D.C., January 17, 1972.
10. Address by Geoffrey M. Nathanson, President, Optical System Corp., to National Assoc. of Theatre Owners, Mid-Continent Convention, Pfister Hotel, Milwaukee, Wis., August 18, 1971.
11. J. Gould, *Pay TV for Apartments is Proposed*, New York Times, October 8, 1971.
12. *Hearings before the Subcommittee on Communications and Power of the Committee on Interstate and Foreign Commerce* 427. House of Representatives, 91st Congress, first session on H.R. 420. December 12, 1969.
13. Letter from FCC to Pierson, Ball and Dervo, Washington, D.C., September, 1971.

