Robert K. Yin

Cable-TV is coming to the cities to serve 137 million people.

The technologists are ready. They can easily demonstrate the vast potentials of advanced cable systems: two-way audio video communication between classrooms and students at home; data storage and retrieval systems to make medical records, library materials and pictorial and filmed subjects available to individual users; microwave links and satellite relays to connect whole regions of the country.

The businessmen are ready. They will compete vigorously for franchising rights in the cities as they already have in many places, and they will build cable systems wherever profits can be made.

The municipalities are also ready. In some cases

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franchises have already been awarded, while in others debate over ownership regulation, access to programming time and other vital issues has begun or will begin shortly.

To guide public officials, the Ford Foundation has recently announced the formation of a cable advisory service, the Cable Television Information Center in Washington, D. C.[1]

But are the people ready?

From a historical perspective, this may seem an unimportant question. Public awareness and consumer habits have always tended to lag behind new technological developments like the telephone, the airplane and the original over-the-air television. From this perspective, it would appear only a matter of time before public acceptance of cable-TV becomes universal, so technology should continue exploiting the frontiers whether the people are ready or not.

From a business perspective, however, the question is crucial. The operation of any cable system will depend on the money paid by the individual citizen. He will pay initial installation and monthly subscriber's fees. He will pay additional amounts for converters needed to provide two-way communications. He will pay additional fees for special programs. For the operator of the cable business, it is crucial that the people be ready—to pay.

From yet a third and often overlooked perspective,

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the social perspective, the question is also crucial. The social perspective assumes that science and technology have been the instruments of social change far too much of the time. It assumes that the contemporary American scene has already been dominated by a power triumvirate composed of the technological, political and business and foundation communities. This triumvirate has usurped the right to define people's "needs," sometimes making no attempt even to consult the public. From the social perspective, whether the people are ready is *all* that matters. If the people are not ready, then technology must shelve its new inventions until educational opportunities can allow individual citizens to study and to decide intelligently what they do and do not want, and what they do and do not need.

Finding out what the public thinks about television and its potential new uses was one subject of a recent study in Dayton, Ohio. The study contained detailed options and recommendations concerning the development of cable-TV for Dayton.[2] As part of the research, a public opinion survey was made with a sample of 696 residents representing the metropolitan area (1970 pop. = 584,000). The survey covered people's access to the mass media, their ownership and use of television, and their preferences for different programs. The methods and results are reported in detail elsewhere,[3] but several questions touched upon topics that may illuminate the state of public readiness for cable-TV.

A few caveats should be made on the interpretation of survey results. First, it is well known that people's verbal responses about their television viewing behavior differ somewhat from their actual behavior.[4] (In general, people report watching more socially desirable programs than they actually do.) Surveys are one of the few ways, however, for assessing reactions to hypothetical programs and new uses of television. Second, some results may be attributable to the peculiar wording of the questionnaire. To verify the results of the Dayton survey, it would be necessary to conduct a follow-up survey, varying the wording and questions. Finally, while some political analysts have defined Dayton as the residence of Mr. Average American Voter (who turns out to be a woman: the forty-seven year-old wife of a machinist living in the suburbs)[5], it is unclear how much can be generalized from the responses of Dayton residents. Nevertheless, the Dayton survey may serve as a good starting point for anticipating the likely public reaction to cable-TV as it enters the top fifty television markets (Dayton ranked 26th in 1970).

The following discussion will review briefly the survey results by examining public reactions to new television services and programs.

General Reactions to New Television Services and Programs

The major feature of advanced cable systems is the capacity to provide viewers with many television channels since the new cable systems can bring forty, sixty or more channels into the home. Cable-TV proponents thus claim that advanced systems will have two important benefits. First, the new systems will mean that television can be used for many new services. These include: a) personal services, e.g., shopping, banking, and voting, in which the services can be carried out via television and hence without a person leaving his home; and b) new community services, e.g., opportunities for improved communications among community and governmental groups. Indeed, one consistent theme is that advanced cable systems can provide the opportunity for people to communicate more with each other, whether through "community information centers" that connect residents and governmental services into one happy electronic clan,[6] through group dialogues among geographically-dispersed communities,[7] or through uses by public institutions like hospitals, schools, and other public services.[8]

Second, the large increase in channel capacity will mean the production of a much wider variety of new television programs.[9] Thus some have expressed the hope that cable-TV can become the medium not only for more intensive coverage of nationwide events and entertainment, but also for a more diverse array of programs produced at the local level (locally-originated programs). These local programs can include public interest programs attuned to the specific social issues of a locale,[10] coverage of important governmental or public events and opportunities for local entertainment, sports and arts. The opportunities for producing locally-originated programs, in short, will allow communities to learn much more about themselves.

How receptive the public will be to some of these ideas can be gauged by the reaction of Dayton's residents to two series of questions. The first series dealt with television use in general. Every respondent was asked to express his agreement or disagreement with each of six statements about the use of television (see Table 1). The results indicated that while a significant proportion of the respondents thought that people

Table 1

GENERAL VIEWS ABOUT THE USE OF TELEVISION (N=696)

Statement	Agree %	Disagree %	No Opinion %	Total
1. People generally watch too much television.	67.2	27.2	5.7	100.0
2. It would be all right for people to watch more television if there were better programs.	68.5	25.0	6.6	100.0
3. It would be better if people watched less television, and had more entertainment opportunities to enjoy in person.	71.4	21.0	7.6	100.0
4. The average person should have more control over the types of programs that are broadcast.	69.9	25.3	4.8	100.0
5. The average person should have more control over the time of day that current programs are broadcast.	65.4	27.6	7.0	100.0
6. It would be desirable if new and imaginative uses were created for television, such as shopping via television, voting in elections via television, etc.	37.1	57.5	5.4	100.0

watched too much television and that it would be better if people had more entertainment opportunities to enjoy in person (questions 1 and 3), a significant proportion also felt that it would be all right for people to watch more television if there were better programs (question 2), and that the average person should have more control over the types and scheduling of programs (questions 4 and 5). These responses appear to reflect a flexible attitude towards the use of television in its present form. Thus the response to the last question (question 6), one concerning the desirability of new and imaginative uses for television, was a surprise: a significant proportion *disagreed* that new uses for television were desirable. People's objections may have been based on poor information, a desire not to use television for such functions or any number of reasons. Whatever the case, potential cable operators may want to determine the basis for the response before planning for new cable systems. (Note that the question did not even raise the issue of how much money people would be willing to pay for newly-created services.)

In the second series of questions, respondents were asked to express their preferences for fifteen different types of new programs. Each of the fifteen had been coded before-hand according to three possible degrees of local-origination involved: none, partial and full. The respondents, however, were only asked to react to each program individually, being given the following close-ended [11] question:

Assuming that new television programs would be directed specifically to the people in your neighborhood, which of the following kinds of programs would interest you? For each kind, please tell me whether you are very interested, moderately interested, not very interested, or completely uninterested.

The preferences for the fifteen programs are shown in Table 2, with the programs ranked in the order of the interest expressed (for brevity, the "very" and "moderately interested" categories were combined, and the "not very" and "completely uninterested" categories were combined). The types of programs that attracted the most interest were: 1) good musicals, comedies, and dramas, 2) educational programs for children and 3) discussions of major news with local participation. Those programs attracting the least interest were: 1) special instruction for foreign language and public speaking, 2) meetings and activities of local community organizations and 3) programs just for local talent.

Table 2

INTEREST IN NEW TELEVISION PROGRAMS (N=696) Degree of Interest

Rank According to Interest*	Type of Program	Very %	Moderate %	Not Very %	None %	No Opinion %	Total
1	Good musicals, comedies, and dramas	67.4	23.6	5.7	2.8	0.4	100.0
2	Educational programs for children	68.8	15.5	9.3	5.7	0.7	100.0
3	Discussions of major news, with local participation	53.4	29.6	10.9	5.4	0.6	100.0
4	Movies on TV	44.4	34.3	15.3	4.7	1.3	100.0
5	Cultural shows, emphasizing local and national museums and landmarks	47.4	30.5	14.0	7.2	0.8	100.0
6	Local events, including courtroom cases and elections	37.8	38.2	14.6	8.2	1.2	100.0
7	Specially arranged educational lectures and courses	34.2	36.5	19.3	8.8	1.3	100.0
8	Legal, tax, and health counsel	36.2	33.3	20.4	9.1	1.0	100.0
9	Announcements of local job and training opportunities	38.7	28.5	21.3	10.9	0.5	100.0
10	General domestic advice (cooking, first aid, gardening, etc.)	32.6	34.6	23.2	9.2	0.4	100.0
11	Professional sports	38.0	25.1	15.6	21.2	0.1	100.0
12	Programs for different racial, ethnic, and religious groups	22.6	35.3	26.4	14.5	1.2	100.0
13	Programs just for local talent	20.6	34.6	30.4	13.1	1.3	100.0
14	Meetings and activities of local community organizations	18.2	33.3	28.8	18.8	0.9	100.0
15	Special instruction for foreign languages and public speaking	20.4	24.2	34.7	20.3	0.3	100.0

*Based on combined total of very interested and moderately interested categories.

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But more important, when the programs were grouped according to the degree of local-origination involved, the general preferences were greater for programs involving no local-origination. As Table 3 shows, the degree of interest was highest for the "no local-origination" group of programs and lowest for the "full local-origination" group with the "partial local-origination" group in between. These results suggest that people may be more interested in the types of programs that can be produced for national or network consumption (e.g., Sesame Street) and not so much in local events. Once again, it seems that further inquiry is needed, in this case to investigate the claim that cable-TV's ability to produce large amounts of local programs will actually meet the felt needs among the people. The interest in local programming may be strong only in special situations, e.g., in Montreal, which is a cosmopolis with a number of distinct population and community groups. [12]

Table 3

INTEREST IN NEW TELEVISION PROGRAMS,
LOCALLY-ORIGINATED VS. NON-LOCALLY-ORIGINATED (N=696)

Amount of Local-Origination Involved	Average Interest for Programs in Each Group					
	Very %	Moderate %	Not Very %	None %	No Opinion %	Total
No Local-Origination (includes musicals, comedies, and dramas, educational programs for children, movies on TV, professional sports, and language instruction; items 1,2,4,11, & 15**)	47.8	24.5	16.1	10.9	0.6	100.0
Partial Local-Origination (includes discussions of news topics, cultural shows with local and national landmarks, legal and health counseling, general domestic advice, and programs for special ethnic, etc. groups; items 3,5,8,10, & 12***)	38.4	32.7	19.0	9.1	0.8	100.0
Full Local-Origination (includes local events, specially arranged educational courses, announcements of local job opportunities, programs for local talent, and meetings of local organizations; items 6,7,9,13, & 14**)	29.9	34.2	22.9	12.0	1.0	100.0

**Item numbers refer to ranks or programs listed in Table 2.
***Calculated from interest in individual programs as shown in Table 2.

Reactions of Different Groups of People

So far, the results have been examined in terms of the responses of people in general. Different groups of people, however, may have entirely different television preferences, and these would be hidden by an analysis of the general response only. Thus male and female respondents might have considerably different interests in new programs (in the survey the main differences arose over the interest in professional sports), older people might have different preferences from younger people, suburban residents might express different opinions from central city residents and so on. All of these potential differences are important since it is claimed that advanced cable systems can provide programs directed at many specific audiences with the ultimate aim being for every person to have a wide choice of programs to his liking.

As an example of the potential differences among different groups of people, the survey results were therefore examined in one case according to the race of the respondent and in another according to the family income of the respondent.

An appreciation of the differences among blacks and whites is perhaps the most critical aspect for understanding the potential impact of cable-TV in the contemporary city. First, large numbers of black people have moved into metropolitan areas during the last twenty

Table 4

INTEREST IN NEW TELEVISION PROGRAMS, BY RACE

Type of Program	Rank According to Interest (total sample)	Very or Moderately Interested — Race		
		White (n=590) %	Black (n=98) %	Black % minus White %
Good musicals, comedies, and dramas	1	92.6	83.0	-9.6
Educational programs for children	2	83.6	88.3	4.7
Discussions of major news, with local participation	3	83.0	85.4	2.4
Movies on TV	4	78.9	77.6	-1.3
Cultural shows, emphasizing local and national museums and landmarks	5	80.6	60.7	-19.9
Local events, including courtroom cases and elections	6	76.8	72.4	-4.4
Specially arranged educational lectures and courses	7	69.0	78.7	9.7
Legal, tax, and health counsel	8	68.7	72.4	3.7
Announcements of local job and training opportunities	9	64.1	85.1	21.0
General domestic advice (cooking, first aid, gardening, etc.)	10	65.3	78.7	13.4
Professional sports	11	60.8	77.7	16.9
Programs for different racial, ethnic, and religious groups	12	53.4	85.1	31.7
Programs just for local talent	13	51.9	73.4	21.5
Meetings and activities of local community organizations	14	47.2	75.5	28.3
Special instruction for foreign languages and public speaking	15	42.9	52.2	9.3

years. Many central cities now have sizeable black populations that can no longer be regarded merely as another "minority group," even though it is only the District of Columbia among the very large cities that actually has a statistical majority of blacks. To view an accommodation with black communities solely as a necessary expedient in dealing with minority interests is to miss the significance of the urban revolution that has been occurring.

Second, up until now, blacks have been notably excluded from control and ownership over the mass media. In the broadcast scene,

Blacks own none of the more than 900 licensed over-the-air television stations. Blacks own only about 17 of the 350 or so "soul" radio stations that cater to black audiences. Blacks are participating in the ownership of only two ... of the more than 4,500 cable-TV franchises that have been awarded by municipal officials to date. [13]

Third, black leaders across the country have been very active in making their own plans for cable-TV and its control in the major metropolitan areas.[14]

Regardless of the outcome of any struggle for ownership and control over new cable systems, it is still important to determine the extent of racial differences among public preferences for television. Of the 696 respondents in the survey, 590 were white, 98 were black and 8 were categorized as "other." Focusing on black vs. white comparisons, there were few racial

Table 5

OWNERSHIP OF COLOR TELEVISION, BY INCOME GROUP

| | Number of Color Televisions Owned | | |
| | None | 1 or more | |
Income Group	%	%	Total
Less than $3,000 (N = 49)	65.3	34.7	100.0
$3,000-$4,999 (N = 53)	75.5	24.5	100.0
$5,000-$9,999 (N = 175)	49.7	50.3	100.0
$10,000-$14,999 (N = 218)	37.6	62.4	100.0
$15,000 or more (N = 150)	26.0	74.0	100.0
Undesignated (N = 51)	62.0	38.0	100.0
All Respondents (N = 696)	44.7	55.3	100.0

differences on the set of six general questions on television (refer to Table 1 for the questions). This was particularly true on the question concerning new and imaginative uses for television: for the whole sample, only 37.1% had agreed that such uses were desirable; this percentage consisted of a 37.4% rate among whites and a 34.5% rate among blacks.

As for interests in the fifteen types of new programs, however, there were some very strong racial differences (Table 4). (Although racial differences sometimes overlap heavily with economic ones because blacks tend to be poorer than whites, subsequent analysis showed that on these questions the differences in racial preferences could *not* be attributable to variations in income.) Among the largest differences was that whites had a greater preference than blacks for cultural shows emphasizing national and local landmarks, but blacks had a greater preference than whites for: a) programs for different racial, ethnic and religious groups, b) meetings and activities of local community organizations, c) programs just for local talent and d) announcements of local job and training opportunities. Three of these last four types of program have previously been categorized as involving full local-origination (refer to Table 3) which suggests that the capability for local origination in new cable systems may be much more important to black communities than to white ones. This apparent preference thus relates quite directly to the concern over ownership and control over new cable systems: will black community groups be assured adequate facilities

and access even though the general population's interest in programs involving local origination may be low as compared to other types of programs?

As for differences among various income groups, it has been commonly found that poorer families tend to own fewer televisions sets even though they tend to make the greatest use of television.[15] This conclusion was obtained in the present survey as well. The implications for cable-TV, however, may best be illustrated by focusing on the current pattern of ownership of color television sets. The parallels between color television and advanced cable systems are very intriguing. Like color television, an advanced cable system represents a further technical development beyond the basic over-the-air telecast; like color television, cable-TV in the metropolis (as opposed to rural areas) will provide the homeowner with an incremental benefit over the regular television programming that he already receives; and like color television, cable-TV will also involve an additional expenditure, generally in the form of a monthly fee (assuming that most owners of color television buy their sets on credit). Color television, however, has been in popular use for about a decade already, whereas advanced cable systems have only been built on an

experimental basis. The assumption, therefore, is that the pattern of ownership of color television will set the limits for the likely initial response to advanced cable systems.

Table 5 shows that of the total sample of respondents, 55.3% owned one color television or more. Furthermore, color television ownership varied directly with family income: for families with incomes under $5,000, less than one-third owned color televisions; for families with incomes over $10,000, about two-thirds owned color televisions. This difference among income groups indicates that only a minority of poor families have been able to share in the benefits that this new technology has made available to American society. If the parallel between color television and cable-TV is valid, then poorer families will also find it difficult to enjoy the additional benefits brought by cable-TV.

Although central city residents generally have lower incomes than their suburban counterparts, the costs of building cable systems are lower in the central city than in the suburbs because of the higher population density in the city. The costs rise substantially as cable systems cover the more remote suburban areas. Thus many people feel that the central city, already poorer than the outlying areas, should not in any way bear a disproportionate burden of the costs, particularly in the case of coordinated cable systems that serve entire metropolitan areas. One possibility considered in Dayton was for the cost differences to be reflected through a variable rate structure in which residents of different locales would pay different subscription fees though receiving the same cable-TV service. The variable rate structure may be too politically sensitive an issue, though, and some other mechanisms may have to be used in order to assure the equitable sharing of costs. The development of alternative mechanisms is certainly a task for future research.

Final Words: What Cable-TV Can Do for People

The Dayton study covered just a few of the areas in which public response is relevant and should be assessed. However, the findings already suggest a lack of public awareness or interest in those very features of advanced cable systems that are most often promoted by cable technologists. Moreover, the brief analysis of preferences of different groups of people only represents a small proportion of the many issues that need to be examined if cable-TV is really to serve highly pin-pointed audiences. In general, the public reactions as assessed in this survey suggest the need for much more open discussions, community participation and formal demonstrations of the potential of cable-TV. [16]

The survey, however, basically covers public reactions to already existing ideas about cable-TV. Such a research

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framework is still too closely linked to the dominant ethos of our society in which science "proposes" and the public, if it is consulted, "disposes." The consumer public need no longer accept such a passive role. Consumers should do some of the proposing themselves and try to influence the course of new technology, rather than allowing the reverse to occur. If potential cable-TV consumers were to play a more active role, what issues might be important with regard to cable-TV? Discussions with Dayton community members (see footnote 16) provide some illustrative examples.

First, from the consumer's view an additional expenditure for cable-TV is not necessarily a high priority item. Cable-TV needs to be made more attractive in basic financial terms, both to municipalities and to individual homeowners. Cities going broke at a rapid rate look to cable-TV as a potential source of new revenue. Yet citizens do not want to accept the sole burden for supporting a cable system in which heavier institutional users do not bear their share of the cost. A frequently mentioned alternative is to require institutions to support the basic cable system, with private citizens paying only for the extra cost of their participation. In this situation neither the institutional nor private consumer will strongly support a cable system in which a third party, e.g., the private operator, makes an unreasonable profit.

A second and possibly more provocative concern has to do with the delivery of television services. Under present conditions, the cable-TV fee only guarantees the homeowner a suitable link-up with the cable, not actual television reception. If his television set is not working properly, he pays the fee but receives no benefit. One alternative might be to have the subscription fee directly related to the provision of service as with telephone systems. The alternatives, of course, involve many complexities not the least of which is that most cable franchises have deliberately precluded cable operators from television sales and repair to preserve competitive markets.

These examples indicate the types of issues identified as a result of a more active public role. The resolution of these and other issues should constitute a major challenge for cable-TV: to show what it can really do for people. In other words, an advanced and sophisticated technological society should be able to contribute to social welfare, and not just create new solutions which must then search for problems they can solve.

American technology, government, and business proved once and for all in the 1960's that formidable technical tasks like landing a man on the moon could be achieved in a surprisingly short period of time. During the same decade, however, life in American cities became increasingly unsatisfactory. Now, in the 1970's, cable-TV is coming to the cities, forcing a direct confrontation between new technology and urban life. Will we be satisfied—just because cable systems can be built quickly and efficiently—to have the "wired nation" serve as another technological trophy, or can we try to build a better society where people participate in the planning and implementation of social change and thereby lead more meaningful lives?

1. *The New York Times,* p. 86 (Jan. 12, 1972).

2. L. L. Johnson, W. S. Baer, R. Bretz, D. Camph, N. E. Feldman, R. E. Park, and R. K. Yin, *Cable Communications in the Dayton Miami Valley: Basic Report* (Santa Monica: Rand Corp., Jan. 1972, R-943).

3. R. K. Yin, *Television and the Dayton-Area resident: The results of a public opinion survey,* in L. L. Johnson et al., *Cable Communications,* Chapter 6. Thanks again to Michael Lenrow and his staff at the Public Opinion Center (Dayton, Ohio) for conducting the survey.

4. *See Newsweek* survey that compared the results of a Gallup poll with the ratings from A. C. Nielsen (May 31, 1971).

5. R. M. Scammon and Ben J. Wattenberg, *The Real Majority* p. 46 (1970).

6. Committee on Telecommunication, *Communications Technology for Urban Improvement* (Washington, D. C.: National Academy of Engineering, June 1971).

7. E. Leonard, A. Etzioni, H. A. Hornstein, P. Abrams, T. Stephens, and N. Tichy, *MINERVA: A participatory technology system,* Bulletin of the Atomic Scientists 4 (Sept. 1971).

8., *See* K. K. Kalba, *Communicable medicine: Cable television and health services,* report prepared for the Sloan Commission on Cable Communications (Sept. 1971).

9. Whether program diversity in fact automatically increases as a function of channel capacity is open to question. For example, previous studies have shown no correlation between program diversity and the number of stations operating in a market (see Herman W. Land Associates, *Television and the Wired City* pp. 32 ff., 118 ff. Washington, D. C. National Assoc. of Broadcasters, July 1968). The main factor governing program diversity appears to be the marketing motivation of the television station: if the ultimate goal is to attract as large a segment of the audience as possible (as would be the case for maximizing advertising revenue), then it behooves the station to produce programs that are most *like* the programs being shown by other stations at the same hour. See M. Wexler and G. Levy, *Women on Television: Fairness and the 'Fair Sex'.* 2 Yale Review of Law and Social Action 66-67 (No. 1, 1971).

10. For a review of the possible public programs, *see* R. K. Yin, *Cable television and public interest programs,* chapter 5, in L. L. Johnson et al., *Cable Communications, Supra,* Note 2.

11. In addition, an open-ended question was asked to give respondents an opportunity to name other types of programs that might not have appeared on the list of fifteen. The results have not yet been analyzed, but no single type of program was mentioned consistently.

12. K. K. Kalba and R. L. Smith, *Cable television in Montreal,* (report prepared for the Sloan Commission on Cable Communications, Feb. 1971.)

13. M. W. Karmin, *Blacks seeking control of big-city cable TV face uphill struggle,* The Wall Street Journal (Dec. 29, 1971).

14. One of the major issues may be the extent to which new cable-TV systems become metropolitan area-wide systems, as opposed to central city systems. Since blacks heavily populate the central city but not the suburbs, any regional system is likely to be dominated by whites. The issue, while new for cable-TV, is of course only another version of an older debate. *See* F. Fox Piven and R. A. Cloward, *Black control of cities: Heading it off by metropolitan government,* The New Republic, Sept. 30, 1967, and Oct. 7, 1967.

15. For instance, *see* B. S. Greenberg and B. Dervin, *Use of the Mass Media by the Urban Poor* (1970).

16. Perhaps our Dayton study set a useful precedent on this score. Besides the survey, private citizens were also organized into more than ten *ad hoc* committees representing various segments of the Dayton population: government, the arts, health and medical care, community development and so on. These committees met several times each with the cable-TV research team, being consulted as the study progressed, and not merely being presented with a final report at the end of the study. The result was an active and often demanding dialogue with many new ideas explored and incorporated into the final research.

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