

1989

The Blue Sky Dialectic: How Cable Communications Succeeded as a Business by Failing as a New Medium, 1969-1989

David A. Lytel
Ithaca College

Follow this and additional works at: https://digitalcommons.ithaca.edu/ic_theses



Part of the [Communication Commons](#)

Recommended Citation

Lytel, David A., "The Blue Sky Dialectic: How Cable Communications Succeeded as a Business by Failing as a New Medium, 1969-1989" (1989). *Ithaca College Theses*. 368.
https://digitalcommons.ithaca.edu/ic_theses/368

This Thesis is brought to you for free and open access by Digital Commons @ IC. It has been accepted for inclusion in Ithaca College Theses by an authorized administrator of Digital Commons @ IC.

The Blue Sky Dialectic:
How Cable Communications Succeeded as a Business
by Failing as a New Medium, 1969-1989

A Thesis Presented to the Faculty
of the School of Communications
Ithaca College

In partial fulfillment of the requirements
for the degree of Master of Science

David A. Lytel

December 1989

Ithaca College
School of Communications
Ithaca, New York

CERTIFICATE OF APPROVAL

MASTER OF SCIENCE THESIS

This is to certify that the thesis of

David A. Lytel

submitted in partial fulfillment of the requirements
for the degree of Master of Science in the School of
Communications at Ithaca College has been approved.

Thesis advisor: _____
Dr. Diane Gayeski /

Candidate: _____
David A. Lytel

Chairperson, Graduate Program
in Communications: _____
Dr. Diane Gayeski /

Dean of Graduate
Studies: _____
Dr. Thomas C. Longin

Date: _____
12-22-89

ABSTRACT

Dozens of "blue sky" forecasts of cable communication's glorious future were made by scholars, research institutes, public interest lobbies, and governmental advisory bodies in the late 1960s and early 1970s. Because cable could carry a greater number of video signals than the broadcast spectrum and was capable of bi-directional communication it was seized upon as a means to alleviate problems such as social alienation and political disempowerment. However, interactive cable failed to develop as expected. Through an analysis of critical events, this thesis assesses the cycle of enthusiasm and disappointment--each time conducted at a higher technological plane--that characterizes the history of cable-based interactivity. It concludes that the periodicity in interactive service development is the result of events that determined the evolutionary course of cable's regulatory regime. Thus both regulation and competition have in their turn alternatively been the forces behind interactive service development.

Table of Contents

<u>Chapter</u>	<u>Page</u>
I. <u>Introduction</u>	1
Statement of Problem	1
Significance and Scope of Problem	4
Hypothesis	6
Assumptions and Limitations	8
Definition of Terms	10
II. <u>Review of Literature</u>	12
Evaluative Research on Cable Television	12
Regulation/Economics	20
General	21
The Franchising Process	30
The Cable Act	39
Teledemocracy	49
III. <u>Methodology</u>	65
Critical Events Analysis	69
Research Design	72
IV. <u>Analysis of Data</u>	74
The 1972 FCC Report and Order	74
The Challenge of the 1972 Rules	82
QUBE and the Franchise Wars: Marketing Interactivity	86
Interactive Cable Liquidated	89
The Era of Refranchising and the Cable Act of 1984	91
V. <u>Summary, Conclusions, and Recommendations</u>	95
<u>Bibliography</u>	107

It is not technology that will shape the future of telecommunications in this country. Nor is it the market. It is policy.

-- John deButts, former Chairman of American Telegraph and Telephone¹

As for diversity of ideas and the opportunity to search for truth--leading values in the liberal theory of the cultural marketplace--the corporate order systematically undermines it. Technology opens doors and oligopoly marches just behind, closing them.

-- Todd Gitlin, former President of Students for a Democratic Society²

¹ Wilson Dizard, The Coming Information Age (New York: Longman, 1982), p. 123.

² Todd Gitlin, "New Video Technology: Pluralism or Banality?" democracy Volume 1, Number 4 (October 1981), p. 70.

Chapter I Introduction

Statement of Problem

America, it has been said, is not so much a place as an idea, and central to this idea has always been the concept of modernity as the progress of human capabilities. Perhaps the most enduring myth in this culture built around modernity and progress is an unshakeable faith in the future--that it will be cleaner, brighter, more beautiful, more democratic, and produce more of the goods an increasingly wealthy populace desires, while maintaining "liberty and justice for all." The collective enthusiasm of Americans has been transferred in part from the drive to conquer physical frontiers in the 19th century to the pursuit of technological ones in the 20th, but the faith remains. Successive generations have in their turn placed their confidence in electricity, telephones, automobiles, radio, television, nuclear power, and now computer technology as the vanguards of a more perfect order. The realization of this vision, however, is always imminent, receding around the corner, forever slightly ahead of us.

At one time the cable communications industry was the beautiful baby of this American technovision. Cable was supposed to be the technology of cultural pluralism. Coaxial cable's enormous capacity relative to standard copper wire, and its ability, unlike broadcast television, to carry a return signal from a subscriber's home were the technical bases of the cable faith. In the last years of the 1960s and the first few years of the 1970s it was forecast that cable would deliver programming and computing power that would make information and education cheap, plentiful, and easily accessible. While there would always be a scarcity of broadcast frequencies due to the physical

Introduction

The following text is a placeholder for the main body of the document. It contains several paragraphs of text that are mostly illegible due to the quality of the scan. The text appears to be a formal report or document, possibly related to a project or study. The content is too blurry to transcribe accurately, but it seems to follow a standard structure with an introduction, several paragraphs of body text, and a conclusion or summary at the end.

limits of the radio spectrum, cable was free of these constraints and could deliver video programming that was more specialized and localized. In this way cable would give viewers a broader range of entertainment and informational opportunities, or so it was hoped.

The cable industry is now mature. While there were only 70 systems in the US in 1950 serving just 14,000 subscribers, there are now more than 8000 systems serving 45 million subscribers, or over half of all American households with television.³ Cable has been a smashing financial success. From 1974 to 1980 Cablecast Newsletter's index of cable operators' stock shares multiplied an incredible 31 times--from \$2.65 to \$82.99. Between 1979 and 1981 alone the stock of the six largest "pure" cable companies appreciated more than four times faster than the stocks of the 400 companies included in the Standard and Poor's index.⁴ And cable's performance is continuing. The costs of bidding and the capital costs of building systems are becoming less burdensome now that virtually all major cities have awarded franchises. Industry revenues are almost five times what they were in 1980, having climbed from \$2.34 billion in 1980⁵ to \$11.4 billion in 1987.⁶ This has been reflected in the enormous increase in the value of cable properties. Systems were selling in 1988 at 12 times estimated cash flow, as contrasted with 8.5 times first year's cash flow in 1980. On a per subscriber basis systems that were

³ Broadcasting/Cablecasting Yearbook and Cablevision, July 4, 1988, p. 56.

⁴ Donaldson, Lufkin, and Jenrette, The Cable Television Industry (New York: author, 1981), p. 3. Hereafter cited as DLJ.

⁵ DLJ, p. 5.

⁶ Celia Capuzzi, "A Rosy Future but Proceed with Caution," Channels 1988 Field Guide, p. 100.

...the ... of ...

...the ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

valued in the range of \$500 per subscriber in 1980 were worth in the range of \$2000 per subscriber in 1988. Cable's revenues from advertising, estimated at \$30 million in 1980 surpassed the \$1 billion mark in 1987.

In the last twenty years cable has unmistakably been a financial success. Its unique technical capabilities, however, were left on the drawing boards. While there have been programming innovations carried via cable, cable has become primarily an alternative delivery vehicle for video programming to mass audiences on the model of broadcast television. Why did the dream of cable as an interactive medium fail to become reality? Can the failure of interactive cable be attributed to the failure of regulators to guide the industry with a firm hand? Or is the failure due to the disinterest of industry decision-makers to follow this path of development or their attraction to other revenue sources? Does blame lie instead with consumers who failed to make the first interactive cable services commercially successful? Alternatively, is cable as a technology simply badly suited for the delivery of signals in two directions? Or were those who forecast blue skies for cable's future development simply overselling the medium's potential?

Each of these processes--technological innovation, regulation at the national, state, and local levels, the financial maturity of the industry, the intensive lobbying of those who sought to make cable a vehicle for the solution to social problems, and the response of consumers to interactive services--provides part of the explanation. This thesis critically reviews the history of cable television in the United States in the last twenty years and analyzes the interrelationship of these processes. It will compare and contrast the competing explanations for cable's development along the lines of broadcasting and assess the critical decisions and influences upon the

The first part of the document discusses the importance of maintaining accurate records of all transactions and the role of the auditor in ensuring the integrity of the financial statements.

The second part of the document discusses the various methods used to audit financial statements, including the use of sampling techniques and the importance of maintaining an audit trail.

The third part of the document discusses the importance of communication between the auditor and the client, and the role of the auditor in providing advice and guidance to the client.

The fourth part of the document discusses the importance of the auditor's independence and objectivity, and the role of the auditor in maintaining the public interest.

The fifth part of the document discusses the importance of the auditor's professional judgment and the role of the auditor in providing a reasonable assurance that the financial statements are free from material misstatement.

The sixth part of the document discusses the importance of the auditor's ethical standards and the role of the auditor in maintaining the highest level of ethical conduct.

The seventh part of the document discusses the importance of the auditor's communication skills and the role of the auditor in providing clear and concise reports to the client.

The eighth part of the document discusses the importance of the auditor's risk assessment and the role of the auditor in identifying and assessing the risks of material misstatement.

The ninth part of the document discusses the importance of the auditor's documentation and the role of the auditor in maintaining a complete and accurate record of the audit process.

The tenth part of the document discusses the importance of the auditor's reporting and the role of the auditor in providing a clear and concise report to the client.

The eleventh part of the document discusses the importance of the auditor's follow-up and the role of the auditor in ensuring that the client has implemented the recommendations of the audit report.

The twelfth part of the document discusses the importance of the auditor's continuous professional development and the role of the auditor in staying up-to-date with the latest developments in the field.

The thirteenth part of the document discusses the importance of the auditor's teamwork and the role of the auditor in working effectively with the client and other auditors.

The fourteenth part of the document discusses the importance of the auditor's leadership and the role of the auditor in providing guidance and support to the client and other auditors.

industry's development that led its current status as an essentially one-way medium.

Significance and Scope of Problem

The failure of the cable television industry to take on the social role prescribed for it by the public interest lobby provides two important lessons on the interrelationship of the actors involved in the introduction of new communications technologies.

Most other technologies may be adopted by individuals without regard to the decision reached by other individuals. Acting alone, they assess the relative advantages of adoption versus nonadoption and then respond. Technologies of communication, however, are fundamentally different because generally they must be adopted by groups rather than individuals. And if the technology is built around providing an electronic pathway for social interaction it must also achieve a critical mass of adopters before it becomes useful for this purpose.

The creation of a new medium for interactive communication thus requires the active coordination of service creators and hardware developers so that standardized communicating devices can be placed in people's hands at the same time a set of applications of the technology has been conceived of and communicated to these potential users. In the case of the only mass scale interactive medium yet developed in the US--the telephone system--this was accomplished by concentrating ownership of all elements of the network in a single company run as a monopoly. The required coordination, therefore, was accomplished in a very direct way. Even with a heavily concentrated industrial structure the integration of technology, services, and a large base

The first part of the book is devoted to a historical survey of the concept of religion. It begins with a discussion of the etymology of the word, tracing its roots back to the Latin *religare*, 'to bind together'. This is followed by a detailed examination of the various ways in which the concept has been defined and used by different scholars and traditions over time. The author argues that the concept of religion is not static but rather dynamic and evolving, shaped by historical and cultural contexts.

The second part of the book explores the relationship between religion and other aspects of human life, such as politics, law, and morality. The author discusses how religious beliefs and practices have influenced the development of these fields, and vice versa. This part of the book is particularly interesting for its critical analysis of the ways in which religion has been used to justify political power and social inequalities.

The third part of the book focuses on the role of religion in contemporary society. The author examines how religious traditions are being reinterpreted and practiced in the modern world, and how they continue to shape individual and collective identities. This part of the book also touches upon the challenges that religion faces in a pluralistic and secularized world, and offers some thoughts on how it might contribute to a more just and equitable society.

of users was not accomplished quickly. It took more than two generations for the telephone to become widely accessible in the US.

The cable television industry presents almost the mirror image of the telephone industry. It is not highly concentrated and systems were not originally designed for interconnection or for interactivity, but for the passive retransmission of broadcast signals. Thus, with the development of an interest in interactivity both the structure of the industry and the design of the existing networks themselves mitigated against large-scale coordination.

This coordination might have been accomplished by the government, but the case of cable television shows just how unsuited the American government is for this purpose. Although decentralization by function (executive, legislative, and judicial) and by jurisdiction (federal, state, local) may uphold other important values, in the management of technological innovation this division makes coordinated action virtually impossible. The American government apparently lacks the institutional capabilities to act with intelligence and dispatch in the management of technological innovation.

The case of cable television presents an example in which social and political goals were explicitly articulated and strongly associated with a well-stated set of technological objectives. However, the policy-making apparatus was too weak to realize those objectives. The power of private decision-makers was such that goals other than those related to the financial performance of cable television companies were subverted. The capacity of the American government to promote technological innovation to meet other social or political goals in other areas when the goals are less well-defined is therefore called into question.

Therefore the diffusion of innovations in communications media is far

more complex than the simple linear diffusion and adoption model in which the relevant actors are individuals making purchasing decisions. In the case of the diffusion of innovation involving interactive communications a substantially more complex model is called for.

The process of innovation in the cable television industry is enlightening in another sense as well. The political battle over building interactive capacity in cable systems did not proceed in a direct, linear way but was characterized by a cyclical pattern of enthusiasm followed by disappointment. Invariably a period of great hopes for the future of cable as a bi-directional medium was followed by an event or action that scuttled this enthusiasm, after which it was once again resuscitated and the pattern renewed. This has happened several times in the last two decades, although each time the debate has been conducted at a more advanced technological level. What is interesting about it is that apparently different forces are at work at different times in provoking the development of interactivity. It would appear that the adoption of innovation in this industry is a dialectical process rather than a unidirectional one.

Focus Questions

This inquiry will follow three related sets of questions to try to unweave the roles of each group of actors in explaining cable's failure to develop interactive services.

1. Historically, the hopes of reformers, social scientists, and governmental agencies that cable could serve broader social purposes rather than as an alternative means of accumulating mass audiences have been opposed by industry decision-makers. They have seen such requirements as an unnecessary burden

1. *Identify the main topic of the document.*

2. *Summarize the key points of the document.*

3. *Discuss the implications of the findings.*

4. *Provide a conclusion based on the analysis.*

5. *Discuss the limitations of the study.*

6. *Provide recommendations for future research.*

7. *Discuss the significance of the research.*

8. *Provide a final summary of the document.*

9. *Discuss the overall impact of the study.*

10. *Provide a final conclusion and recommendations.*

11. *Discuss the future directions of the research.*

12. *Provide a final summary of the document.*

13. *Discuss the overall impact of the study.*

and have argued instead that the removal of regulatory obstacles would bring about the desired technological innovation more quickly than direct intervention. The public interest lobby has argued for more direct means of accomplishing social objectives through, for example, specific design requirements for cable television systems.

The first question then concerns the nature of the relationship between financial performance and the development of interactivity in the cable television industry. Does it appear that interactive development is enhanced by successful financial performance? This is closely related to the second area of inquiry, which is concerned with the role of regulation in bringing about interactivity.

2. How have the public interest lobby and the industry competed in the regulatory arena over interactive services, and with what result? Even after regulators were captured by the public interest lobby and converted to their agenda the demands of capital markets for robust and rapid financial performance led the industry's decision-makers away from interactivity and to investment in other areas. Thus, by failing to serve the essential and primary goal of maximizing return on dollars invested the unique technical capabilities of cable as a technology were eliminated despite the opposition of regulators. This is seen most clearly by the reduction of the power of municipal regulators as a result of the Cable Communications Policy Act of 1984. After the passage of the Act and the diminution of the power of local franchising authorities virtually all development of interactive cable came to an end.

3. Yet, even with the success of industry decision-makers in getting out from under regulations mandating the development of interactive cable the vision

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

did not go away. It becomes a critical element in the competition between cable operators for lucrative municipal franchises in America's major cities. What accounts for this periodicity in interactive cable development? Why is the process cyclical rather than linear? Why isn't there simply one battle after which cable either adopts the one-way or two-way visions of cable's future and then proceeds along that path? What accounts for the continual renewal of the interactive cable vision?

Assumptions and Limitations

The key critical assumption is the definition of the "public good." To public decision-makers, scholars, and activists this can be defined outside of market interaction. To business decision-makers it cannot be defined except by competition within a market of buyers and sellers. This thesis will adopt the perspective of those who believe that a public interest may be served that is not expressed in a commercial relationship. The decision on the framework or platform upon which cable services are built--the network and its capabilities--is the essential one for the kinds of functions that will be built into a cable system. This decision is made well before there is any meaningful action by consumers in their role as purchasers of cable services. The earlier point of intervention sought by consumers, government officials, and others is because the capabilities of the cable system are decided at the point of design and construction. While they argue that there is a public interest in cable systems capable of subscriber-to-subscriber interaction they cannot, however, cite evidence as compelling as the verifiable and certain consumer demand for one-way video entertainment. Thus while they argue a public interest in interactive services this claim is, from the perspective of

1. The first part of the document is a letter from the author to the editor, dated 10/10/1954. The letter discusses the author's interest in the subject of the journal and the author's hope that the editor will accept the author's manuscript for consideration. The author also mentions that the manuscript is enclosed and that the author is available for further discussion if needed.

2. The second part of the document is a letter from the editor to the author, dated 10/15/1954. The editor thanks the author for the letter and the manuscript and informs the author that the manuscript has been accepted for consideration. The editor also mentions that the author's name will be on the cover of the journal and that the author will receive a complimentary copy of the journal. The editor also mentions that the author's name will be on the cover of the journal and that the author will receive a complimentary copy of the journal.

industry decision-makers, on very shaky ground.

What is important is not an objective evaluation of who is correct in their definition of the public good. What is crucial is that the government-academic-public interest lobby perceived in the late 1960s that the public interest was associated with interactive cable and that this interest was clearly stated and forcefully pursued. Those outside the industry clearly lacked the power necessary to guide its development along the lines they envisioned and realize their conception of the public good. This self-definition of the term is the essential point, not that they were right or wrong to identify it with a particular set of technical criteria for cable systems.

This disagreement over the concept of the public good carries over into a dispute over the concept of "success." To the public interest lobby success may include services that failed to gain broadscale consumer acceptance but nonetheless showed promise in meeting other social goals. To cable operators, on the other hand, success is defined as profitability. The term will be treated gingerly due to this fundamental dispute. No objective evaluation of success will be sought other than the definition used by each group of actors.

The other key limitation of this study is the scope of the definition of "innovation." While there has been innovation in the cable industry it has been innovation of a particular type. It is possible to argue that the development of new services has proceeded along the lines of those services most commercially viable, which simply were not the services desired by the agencies and organizations that in its early years looked to cable as a vehicle for social goals only marginally related to television. Thus the important limitation is that here we are using a particular path of develop-

The Board of Directors has the honor to acknowledge the cooperation and assistance of the following:

Mr. J. H. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

Mr. [Name], [Title], [Company]

ment--interactivity--as a way of measuring innovation when it is but one path. It is important to recognize, therefore, that there have been other areas of innovation in the industry. Interactivity, however, has not been among them.

Definition of Terms

The most important concept is interactivity, which here will be taken to mean the presence of some consumer-controlled component that either allows signals and messages to be sent to the system's headend (central point) or to other users of the network. An electronic medium for human communication that includes some bi-directional (two-way) component is an interactive medium. Interactivity will range from that which is implemented by rudimentary polling mechanisms that gather short yes/no or multiple choice responses, to systems built around terminals that allow textual communications between individuals to which the system operator is not a party. The latter systems, which also allow navigation through an online service composed of text and graphics is commonly called videotex, a word that has fallen into some disfavor but will be used here. Systems in which video signals may be sent in two directions will be considered as lying beyond this definition of interactivity, although they of course are interactive. The use of cable systems as a "last mile" conduit for traditional voice telephone services will also not be considered within this definition, although this too is interactive. Neither two-way video or cable-based telephone services have ever been sufficiently widespread as to figure significantly in the interactivity that may be made available with cable communications. Hybrid telephone/cable interactive mechanisms, in which the downstream path is provided by the cable system but the return channel is provided by the telephone network, will be considered within this

The first part of the document discusses the general principles of the system and the various components involved. It covers the basic architecture and the overall goals of the project.

The second part of the document details the specific implementation of the system, including the various modules and their interactions. It provides a comprehensive overview of the system's structure and its components.

The third part of the document describes the testing and validation process, including the various tests performed and the results obtained. It discusses the system's performance and its ability to meet the requirements.

The fourth part of the document discusses the future work and the potential for further development of the system. It identifies the areas that need further research and the challenges that lie ahead.

The fifth part of the document provides a conclusion and a summary of the key findings of the project. It highlights the achievements and the lessons learned from the project.

The sixth part of the document contains the references and the bibliography, listing the sources used in the project. It provides a comprehensive list of the references used in the project.

The seventh part of the document contains the appendixes, including the various diagrams and tables used in the project. It provides a detailed view of the system's architecture and its components.

The eighth part of the document contains the index and the table of contents, providing a quick reference to the various sections of the document. It is a useful tool for navigating through the document.

definition, although this technical configuration is quite recent and does not figure historically in the battle over bi-directional cable. Systems in which video, voice, and data communications may travel in both directions are called broadband networks.

The vision in which cable is seen as an interactive medium has become intimately connected to the pursuit of technologically-enhanced forms of political participation, or teledemocracy. Teledemocracy will be used as the catch-all phrase for the image of the wired city in which individual alienation and powerlessness is diminished by the establishment of a new medium that breeds cooperation, communication, and empowerment by virtue of its interactive design. Not all of the literature concerned with teledemocracy includes cable television as its means of implementation, although much of it does.

The following chapter will review the research that has been conducted on cable television as well as interview that literature for its coverage of regulation as well as for interactivity. The literature on teledemocracy will also be reviewed in detail. Next, the means by which we may explain the cycle of birth, death, and rebirth of two-way cable will be assessed and a single method chosen and evaluated. Then that framework for analysis will be applied to the last twenty years of the cable industry's development to see if the causes of interactive cable's fate can be separated and evaluated. Finally, we will discuss that analysis and draw lessons from it.

1. The first part of the document is a list of names and addresses of the members of the committee.

2. The second part of the document is a list of names and addresses of the members of the committee.

3. The third part of the document is a list of names and addresses of the members of the committee.

4. The fourth part of the document is a list of names and addresses of the members of the committee.

5. The fifth part of the document is a list of names and addresses of the members of the committee.

6. The sixth part of the document is a list of names and addresses of the members of the committee.

7. The seventh part of the document is a list of names and addresses of the members of the committee.

8. The eighth part of the document is a list of names and addresses of the members of the committee.

9. The ninth part of the document is a list of names and addresses of the members of the committee.

10. The tenth part of the document is a list of names and addresses of the members of the committee.

11. The eleventh part of the document is a list of names and addresses of the members of the committee.

12. The twelfth part of the document is a list of names and addresses of the members of the committee.

13. The thirteenth part of the document is a list of names and addresses of the members of the committee.

14. The fourteenth part of the document is a list of names and addresses of the members of the committee.

15. The fifteenth part of the document is a list of names and addresses of the members of the committee.

16. The sixteenth part of the document is a list of names and addresses of the members of the committee.

17. The seventeenth part of the document is a list of names and addresses of the members of the committee.

18. The eighteenth part of the document is a list of names and addresses of the members of the committee.

19. The nineteenth part of the document is a list of names and addresses of the members of the committee.

20. The twentieth part of the document is a list of names and addresses of the members of the committee.

21. The twenty-first part of the document is a list of names and addresses of the members of the committee.

22. The twenty-second part of the document is a list of names and addresses of the members of the committee.

23. The twenty-third part of the document is a list of names and addresses of the members of the committee.

24. The twenty-fourth part of the document is a list of names and addresses of the members of the committee.

25. The twenty-fifth part of the document is a list of names and addresses of the members of the committee.

26. The twenty-sixth part of the document is a list of names and addresses of the members of the committee.

27. The twenty-seventh part of the document is a list of names and addresses of the members of the committee.

28. The twenty-eighth part of the document is a list of names and addresses of the members of the committee.

29. The twenty-ninth part of the document is a list of names and addresses of the members of the committee.

30. The thirtieth part of the document is a list of names and addresses of the members of the committee.

Chapter II

Review of Related Literature

The literature on cable television can be classified as falling into one of three categories: predictive, descriptive, or evaluative. They will be taken up in reverse order. Since the goal of this research is to explain the dynamics involved in the development of cable-based interactivity this chapter will begin by reviewing the ways other scholars have sought to evaluate cable television with an explicit analytic framework.

Scholarship that has been essentially descriptive, that is to say without a theoretical framework for evaluation, or focused on a particular aspect of cable will be used in the second part of this chapter in exploring the key themes of this research. The first of these themes is the evolution of the regulatory framework for cable. The second theme is technological innovation in general and interactivity in particular. Teledemocracy and its relationship to cable will also be reviewed, although it draws on sources much broader than works written specifically about cable television.

Finally, because a detailed evaluation of the forecasts of cable television's future development is so critical to this research it will be reviewed only after the methodology for its analysis has been discussed and selected. Thus, anything written to serve as a prediction of cable's future has been deferred until after the framework that will be used for evaluation in this research has been made explicit.

A. Evaluative Research on Cable Television

Five scholars have attempted to evaluate cable television as a medium and as an industry. Although there is a much larger number of investigators

Chapter 11
Review of related literature

The first part of the chapter discusses the importance of a literature review in the context of a research project. It highlights how a thorough review of existing research can help to identify gaps in knowledge, refine research questions, and establish the theoretical framework for the study. The text emphasizes that a literature review is not merely a summary of what has been written, but a critical analysis that synthesizes information and identifies trends and controversies in the field.

The second part of the chapter provides a detailed guide to the process of conducting a literature review. It begins with the selection of keywords and the use of search engines and databases to locate relevant sources. The text discusses the importance of evaluating the quality and credibility of the sources found, and provides criteria for assessing the reliability of different types of publications. It also offers advice on how to organize and synthesize the information gathered, and how to write a coherent and well-structured literature review.

The third part of the chapter focuses on the presentation of the literature review. It discusses the importance of using clear and concise language, and provides examples of effective writing styles. The text also addresses the issue of plagiarism, and provides guidelines for how to cite sources correctly and avoid unintentional copying. Finally, the chapter concludes with a summary of the key points discussed and offers some final thoughts on the value of a literature review in the research process.

who have analyzed individual elements of the industry these are broad attempts to develop a framework for analysis of cable in its entirety. By what criteria have these scholars evaluated cable?

Several evaluations follow the school of critical analysis by conducting philosophical inquiries. Seymore Mandelbaum, for example, attributes "the poverty of the cable experience in the USA" to the failure in American culture to treat cities as "deep communities of mutual obligation." He acknowledges his own membership in "the first generation of academic enthusiasts for the broad social promise of cable television" that "dreamed of multi-purpose broadband networks as the central technical element of a synthetic conception of urban communication." Yet, despite the industry's failure to live up to those early dreams "fantasies of its potential persist."⁷

Cable's failure to develop into broadband networks cannot only be attributed to the roles played by "power, capital, and authority" but also to the inability of the original enthusiasts to germinate an intellectual tradition on American soil. What was at stake, according to Mandelbaum, was the image of urban polities "in which claims of obligation and loyalty rather than the threat of exit are the coins of influence," and in which

civic institutions and rituals cultivate the sense of a corporate entity whose members are bound by a commitment to rules and to each other in a way which tempers short-term calculations of interest.⁸

However, this vision of the role and function of the urban community has not been politically potent in the US, a fact that inhibited the efficaciousness

⁷ Seymour Mangelbaum, "Cities and Communication: The Limits of Community," Telecommunications Policy Volume 10 (1986), p. 132.

⁸ Ibid, p. 137.

... ..
... ..
... ..

... ..
... ..
... ..

... ..
... ..
... ..

... ..
... ..
... ..

... ..
... ..
... ..

... ..
... ..
... ..

... ..
... ..
... ..

... ..
... ..
... ..

... ..
... ..
... ..

... ..
... ..
... ..

... ..
... ..
... ..

... ..
... ..
... ..

... ..
... ..
... ..

... ..
... ..
... ..

of the wired city enthusiasts as a political force:

The resistance to the creation of deep bonds of mutual obligation has, however, been very powerful and (at least until now) has prevented the emergence of the idea of an urban communication infrastructure and its institutional complements.⁹

Although broadband networks including "an audience response through a return loop" could be built "to support rich dialogic processes intimately connected to action--the essential requirements of a deep community" institutions on the national and local levels "have been very reluctant to realize these potentials."¹⁰ He concludes, however, that "the game is not yet over" because the advance of the technology and the franchising processes will continue to bring together broader social concerns than the profitability of a cable operator.¹¹

Another critical analysis, Thomas Streeter's inquiry into what he calls "the discourse of new technologies," is also close to the approach taken in this research.¹² Drawing from the continental traditions of semiotics and structuralism, he uses the term discourse to refer to "systems of representation that order social life and provide a framework for comprehending social acts and events."¹³ He analyzes the "pattern of talk common in the policy-making arena around 1970" and finds that

a new way of talking and understanding became attached over the home delivery of television signals by wire, and this in turn

⁹ Ibid, p. 138.

¹⁰ Ibid, p. 139.

¹¹ Ibid, p. 140, 138.

¹² "The Cable Fable Revisited: Discourse, Policy, and the Making of Cable Television," Critical Studies in Mass Communication Volume 4 (1987), pp. 174-200.

¹³ Ibid, p. 196.

The Board of Directors has the honor to acknowledge the cooperation and assistance of the various departments of the University of California in the preparation of this report.

The Board of Directors has the honor to acknowledge the cooperation and assistance of the various departments of the University of California in the preparation of this report. The Board of Directors has the honor to acknowledge the cooperation and assistance of the various departments of the University of California in the preparation of this report.

The Board of Directors has the honor to acknowledge the cooperation and assistance of the various departments of the University of California in the preparation of this report. The Board of Directors has the honor to acknowledge the cooperation and assistance of the various departments of the University of California in the preparation of this report.

Very truly yours,

Chairman of the Board of Directors

Secretary

Treasurer

Member

The Board of Directors has the honor to acknowledge the cooperation and assistance of the various departments of the University of California in the preparation of this report.

Member

echoed back on developments in the field of media policy.¹⁴

He finds that this discourse "made a concrete, if modest, difference" by creating "a sense of expert consensus, of unity and coherence where there actually was a variety of conflicting motivations, attitudes, and opinions."¹⁵

This discourse

inspired a sense of urgency, of possibility, and of a need for action, for response. By creating a terrain for collective action while simultaneously obscuring underlying conflicts, the discourse of the new technologies played a central role in galvanizing the FCC's reversal on the CATV issue.¹⁶

As he shows, cable was characterized as having

the potential to rehumanize a dehumanized society, to eliminate the existing bureaucratic restrictions of government regulation common to the industrial world, and to empower the currently powerless public."¹⁷

While the delivery of a multiplicity of programming sources, some of them locally produced, was important to this vision, Streeter shows that "central to [the] argument was an enthusiasm for the two-way or interactive potential of cable television."¹⁸

However, instead of being able to realize their vision, Streeter shows that the enthusiasts were used by cable industry policy-makers in their battle with the dominant broadcast television interests. He shows how a coalition of five groups came together to lobby for the young medium including the industry itself, economists concerned with regulatory problems, liberal elites seeking

¹⁴ Ibid, p. 174.

¹⁵ Ibid, p. 175.

¹⁶ Ibid, p. 175.

¹⁷ Ibid, p. 181.

¹⁸ Ibid, p. 180.

... ..
... ..
... ..
... ..

... ..
... ..
... ..
... ..

... ..
... ..
... ..
... ..

... ..
... ..
... ..
... ..

... ..
... ..
... ..
... ..

... ..
... ..
... ..
... ..

-
-
 -
 -
 -
 -

an alternative to the system of commercial television, policy-makers dealing with the management of communications policy, and progressives searching for forms of communication that were more democratic than the prevailing system.

Among these groups only the cable industry itself benefitted from the discourse, which "loosened the regulatory framework at strategic moments, allowing cable to be ratcheted gradually into its place between the usually calcified, tightly joined elements of the corporate industrial system."¹⁹ Streeter does not conclude that the industry was able to manipulate the debate to serve its own ends, although "it nonetheless served the industry much more effectively than it did the social and democratic ambitions that helped generate the debate."²⁰

Finally among the critical analysts, Patrick Parsons applies Anthony Giddens's theory of "structuration" as a framework for the study of cable in the United States.²¹ He characterizes the battle over cable's social role as first one of definition, which

flow not from the technology itself but from the struggle of directed agents seeking to reify and associate with the technology a given set of functional characteristics.²²

The definitions thus reached play a major role in determining the way policy-makers will mold the regulatory environment, according to Parsons.

In Giddens's model social systems are not seen merely as frameworks constraining social action but also as products of this action. The analytic

¹⁹ Ibid, p. 195.

²⁰ Ibid, p. 196.

²¹ "Defining Cable Television: Structuration and Public Policy," Journal of Communication Volume 39, Number 2 (Spring 1989), pp. 10-26.

²² Ibid, p. 1.

The first part of the document discusses the importance of maintaining accurate records for all transactions and activities. It emphasizes the need for consistency and transparency in reporting, particularly in the context of financial statements and tax filings. The document outlines various methods for tracking income and expenses, including the use of spreadsheets and specialized accounting software.

The second section focuses on the legal requirements for record-keeping, detailing the retention periods for different types of documents and the consequences of non-compliance. It highlights the importance of safeguarding these records against loss, theft, or destruction, and provides guidance on how to properly store and backup digital data.

The third part of the document addresses the practical aspects of record-keeping, offering tips and best practices for organizing and managing a large volume of information. It discusses the benefits of using standardized formats and codes to facilitate data entry and retrieval, and provides examples of how to structure records for maximum clarity and efficiency.

Finally, the document concludes with a summary of the key points and a call to action, encouraging readers to take the necessary steps to ensure their records are accurate, complete, and accessible at all times. It stresses that proper record-keeping is not only a legal obligation but also a vital tool for managing a successful business or organization.

In addition to the general principles outlined above, it is essential to consider the specific requirements of the relevant jurisdictions. Different countries and states may have unique rules regarding record-keeping, and it is crucial to stay up-to-date on these regulations. Consulting with a professional advisor, such as an accountant or lawyer, can provide valuable insights into the specific requirements that apply to your situation.

Furthermore, the document emphasizes the importance of regular audits and reviews of the records to identify any discrepancies or errors. This proactive approach can help prevent potential issues and ensure that the records remain reliable and trustworthy. By implementing the strategies and best practices discussed here, you can ensure that your record-keeping process is both effective and compliant.

The following table provides a summary of the recommended retention periods for various types of records, based on the information provided in the document. It is important to note that these periods may vary depending on the specific circumstances and the requirements of the applicable laws.

Record Type	Retention Period
Financial Statements	7 years
Tax Returns	7 years
Bank Statements	7 years
Receipts and Invoices	7 years
Contracts and Agreements	3-5 years
Legal Documents	As long as they are needed for legal purposes
Employee Records	7 years
Property Records	As long as the property is owned
Insurance Policies	7 years

For more detailed information on record-keeping requirements and best practices, please refer to the full document or consult with a professional advisor.

stress, says Parsons, "is placed on social behavior and more specifically on the purposeiveness of individuals in situated space."²³ Giddens accepts the Marxian objective of revealing invisible patterns of dominance but rejects of social theories such as Marx's historical materialism. Giddens's structuration rejects dialectical models as too deterministic. Change is seen as a "vibration of social activity" that is bound by the system norms of a particular place and time as well as produced by "the purposeful interaction of individuals."²⁴

In Parson's application of structuration to an understanding of cable television policy he begins with an exploration of the framework of interaction, citing the FCC, Congress, and the courts as the relevant actors. Missing from this analysis, significantly, is any mention of the role played by local governments as franchisors, a notable omission. He then focuses on the "definitional evolution" of cable television. Existing at first as merely a technological adjunct to broadcast television, the conceptualization of cable began to change when it began importing signals into areas where they were not available over the air. Parson's then characterizes the conflict between cable and broadcasting interests as one over the "definitional paradigm" that would rule cable.²⁵

As Parson's shows, cable operators themselves sought a definition of their facilities as extensions not of the facilities of the broadcasters but of the equipment owned by recipients of the broadcast signal, a position

²³ Ibid, p. 11.

²⁴ Ibid, p. 12.

²⁵ Ibid, p. 18.

The first part of the document discusses the importance of maintaining accurate records and the role of the accounting department in ensuring the integrity of the financial statements. It highlights the need for transparency and accountability in all financial transactions.

The second part of the document outlines the specific responsibilities of the accounting staff, including the preparation of financial statements, the management of accounts payable and receivable, and the oversight of budgeting and forecasting. It emphasizes the importance of attention to detail and the timely completion of all tasks.

The third part of the document provides a detailed analysis of the company's financial performance over the past year. It includes a comparison of actual results to budgeted figures and identifies areas of strength and weakness. The analysis also discusses the impact of market conditions and the company's strategic initiatives on its financial performance.

The fourth part of the document presents the company's financial outlook for the upcoming year. It includes a forecast of revenue and expenses, a discussion of potential risks and opportunities, and a summary of the key financial metrics that will be used to evaluate performance. The document concludes with a statement of confidence in the company's ability to achieve its financial goals.

Prepared by: _____
 Date: _____

required by the fear of having to pay copyright fees if defined as a programmer. He observes that

the designation and promotion of CATV within such an analogy was not a serendipitous event; it was an action planned by knowledgeable agents for specific political and economic purposes.²⁶

He views the rise of the "blue sky" vision of cable as a broadly accessible information utility as a new definitional paradigm within which cable had to operate, although not one of the industry's own making. And according to his analysis this definitional struggle continues to the present day, constituting the "dialectic of control."

Parson's concludes that this framework, by rejecting the primacy of the social or technical structure and underscoring the role played by active agents, shows how definitions of structure come to be created and re-created.

Kenneth Laudon adopts a more empirical approach to the evaluation of cable.²⁷ Although he offers no theoretical framework within which to evaluate cable, he identifies seven criteria by which to judge how well the industry has performed: independence, business uses, information retrieval, accountability, programming diversity, interactivity, and political participation. He concludes that cable's increasing integration into the mass entertainment industry has replaced the vision of the industry as a small scale, independent provider of alternative programming for specific audiences. Cable has proven unable to compete with the telephone network in the delivery of information or business services. Interactivity failed to attract additional subscribers and despite some programming innovations like C-SPAN, cable's impact on political

²⁶ Ibid, p. 20.

²⁷ "The Wired Society: Promise and Performance," paper for the Annenberg School of Communications Washington Program, July 12, 1984.

The first part of the document discusses the importance of maintaining accurate records. It states that proper record-keeping is essential for the smooth operation of any business or organization. This includes keeping track of inventory, financial transactions, and employee records. The text emphasizes that these records should be kept up-to-date and easily accessible.

In addition, the document highlights the need for regular audits. Audits help to identify any discrepancies or errors in the records. They also provide a way to ensure that the organization is following all relevant laws and regulations. The text suggests that audits should be conducted at regular intervals and by independent parties.

Another key point is the importance of data security. With the increasing amount of digital information being stored, it is crucial to protect this data from unauthorized access or loss. The document recommends implementing strong security measures, such as encryption and firewalls, to safeguard sensitive information.

Finally, the document concludes by stating that maintaining accurate records and implementing these best practices will lead to greater efficiency and success for any organization. It encourages the reader to take these steps seriously and to seek professional advice if needed.

This document is intended to provide a general overview of record-keeping practices. It is not intended to constitute legal advice. For more information, please consult a qualified professional.

involvement has been minimal. He concludes that cable will "follow the path of broadcast television which is to rely upon mass audiences, low programming diversity, and high levels of economic and institutional concentration."²⁸

Finally, another empirical work is William Dutton and Thierry Vedel's comparative analysis of the industry. Dutton and Vedel use the idea of an "ecology of games" developed by Norton Long to critique both the pluralist and elitist approaches to politics.²⁹ In Long's model, events are often the consequence of unplanned and unanticipated interactions among somewhat independent "games." Individuals make decisions based on relatively narrow roles and seldom with an entire community of interests in mind.

In Dutton and Vedel's application of this model to cable they attempt to identify the central games, players, or contestants and their attempts to shape the outcome of each contest by definition of the issues in order to change the scope of the conflict or change the nature of cleavages that determine how the players choose sides.³⁰

They find that in the case of the U.S. games such as partisan politics were relatively unimportant while first amendment and anti-trust rules as well as cable's initial definition as an adjunct to broadcasting are the most important rules determining the industry's development. Similarly, while revenue considerations (cable as a source of income for the government) and cultural policy goals have been important in the European context they have not been as influential in the U.S. Cable policy in the U.S. has been reactive, putting government in the position of mediating and legitimating agreements reached by

²⁸ Ibid, p. 28.

²⁹ "Comparative Politics of Cable Television: A British, French, and U.S. Ecology of Games," paper presented at the 1989 Annual Meeting of the International Communication Association, San Francisco, CA, May 1989.

³⁰ Ibid, p. 12.

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

non-governmental actors. They conclude that the current configuration of the industry are due in large measure to an ungoverned, uncontrolled, and largely unpredictable decision-making framework.

B. Relevant Themes in Cable Scholarship

The remainder of what has been written on cable television is focused on a few key areas, the bulk of which is concerned with two areas that are not developed in this research. Neither programming nor audience effects research are relevant to this investigation, except peripherally. The most important area of investigation for this analysis is the work concerned with cable regulation and economics in general and with the franchising process and the Cable Communications Policy Act of 1984 in particular (hereafter referred to as the Cable Act). This exploration of cable's regulatory environment has been an attractive area for research in part because cable, alone among all the technologies of communication in the U.S., has been regulated at each level of government. Occasionally these different levels of government have been at cross purposes with one another. Following a review of this area we will take up the literature on innovation in general and interactivity in particular, then explore that which has been written about teledemocracy.

1. Regulation/Economics

Works in this category can be placed in three subcategories. First are general investigations of cable regulation and economics. The next are those works concerned with franchising and the process of regulation on the local level. Finally there is a growing body of literature specifically looking at the impact of the nation's first and only major policy statement on cable, the

... and the ... of the ...
... and the ... of the ...
... and the ... of the ...

... and the ... of the ...
... and the ... of the ...

... and the ... of the ...
... and the ... of the ...

... and the ... of the ...
... and the ... of the ...

... and the ... of the ...
... and the ... of the ...

... and the ... of the ...
... and the ... of the ...

... and the ... of the ...
... and the ... of the ...

... and the ... of the ...
... and the ... of the ...

... and the ... of the ...
... and the ... of the ...

... and the ... of the ...
... and the ... of the ...

... and the ... of the ...
... and the ... of the ...

... and the ... of the ...
... and the ... of the ...

1984 Cable Act.

a. General

A large number of books and articles on regulation and financial performance of the cable industry exist. Among the most interesting are those by Don LeDuc because his 1973 contribution to this literature, Cable Television and the FCC,³¹ was one of the earliest scholarly works to call for deregulation of cable and his 1987 work, Beyond Broadcasting: Patterns in Policy and Law,³² was among the first to acknowledge the limits of deregulation and call for a certain degree of reregulation.

In LeDuc's 1973 investigation the history of cable regulation is told in great detail up to the Third Report and Order (1972), called by Broadcasting "the FCC's magnum opus on CATV." The FCC's interest in regulating cable and its authority for doing so were in question throughout the industry's early years. It was considered neither a common carrier (Title II of the Communications Act of 1934) or a broadcaster utilizing the radio spectrum (Title III of the Act.) As such, the FCC eventually regulated it as ancillary to broadcasting, a perspective that held great dangers for the development of cable and its capabilities to send a return signal to the place of program origination. The agency vigorously opposed a congressional effort in 1960 to give it jurisdiction over cable, so when it ultimately decided to act to promote a particular path of development of the cable industry--one quite favorable to interactivity--it lacked the legal basis to do so and was rebuffed by the

³¹ Philadelphia: Temple University Press, 1973.

³² White Plains, NY: Longman, 1987.

The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting. The second part of the document provides a detailed breakdown of the company's revenue and expenses for the reporting period. This includes a comparison of actual performance against budgeted figures and an analysis of the reasons for any variances. The third part of the document discusses the company's financial position and outlook for the future. It highlights the company's strong liquidity position and its commitment to sustainable growth. The fourth part of the document provides a summary of the key findings and conclusions of the financial review. It identifies the areas of strength and weakness and provides recommendations for improvement. The fifth part of the document provides a list of the company's assets and liabilities, along with their respective values. The sixth part of the document provides a list of the company's equity and debt, along with their respective values. The seventh part of the document provides a list of the company's income and expenses, along with their respective values. The eighth part of the document provides a list of the company's cash flows, along with their respective values. The ninth part of the document provides a list of the company's financial ratios, along with their respective values. The tenth part of the document provides a list of the company's financial statements, along with their respective values.

Prepared by: [Name]

Date: [Date]

courts.

The 1972 rules were an attempt to write rules for cable development for the first time. They contained signal carriage and minimum performance standards that contained requirements for two-way cable plant. LeDuc's characterization of the industry up to that point in its development, however, held out little promise that the new regime would be upheld, as in fact it was not. LeDuc found that the industry was content with "only the image of broadband service" rather than the reality. It "provides cablecast programming without strong conviction and 'public access' channels without deep committment." Interactivity, called "subscriber-initiated services," are seen as "more than a decade away."³³ The ability of the FCC to successfully bring about technical innovation in the industry was evaluated quite negatively, with the result being that "the lowest common denominator of mass entertainment [is] already beginning to take root." The FCC is seen as

capable of encouraging innovation only to the extent that the interests of the industry and the public seem to coincide; and since the industry can be presumed willing to encourage innovation service its interests, the agency's present role in this process might be described as at best superflous and at worst repes-
sive.³⁴

At bottom, as LeDuc evaluates it, is the problem that the FCC was only able to evaluate innovation in the context of current services. Its solid capture by broadcasting interests (indicated by the moritorium placed in the late 1960s on importing distant signals into the top one hundred media markets) meant that cable's development was continually stifled by regulators while its unique technical capabilities were ignored by industry decision-makers.

³³ p. 204, 206.

³⁴ p. 207.

As LeDuc asserts once again in his 1987 work, cable regulation was historically uncertain, tentative, and provisional throughout the 1970s:

The FCC was forced throughout the entire period of its cable control to operate at the very edge of its jurisdictional base and was never certain when the federal courts would say that the agency had exceed the boundaries of its congressional granted authority.³⁵

The emphasis in the later work is on programming supply rather than the distribution industry, so it contains little of interest in the history of the development of interactive services. He points out, however, how important the cable operators with programming interests view regulatory activities that benefit them such as syndicated exclusivity, copyright fee administration, and mandatory carriage rules. Thus, he concludes,

if media industries are reluctant to rely on the vagaries of a marketplace in areas most significant for the media's economic survival, it may be equally unwise for the American public to rely too heavily on this same marketplace to determine the qualities of anything as significant as that mass-cultural environment these services create.³⁶

Three other important works on the regulatory regime for cable television, both turned into historic documents by the passage of the Cable Communications Act of 1984, are worth mentioning. Martin Seiden's Cable Television U.S.A.³⁷ deals with the same time period as LeDuc's Cable Television and the FCC. He is similarly critical of the Commission's activities. Seiden asks rhetorically if it would not have been in the public interest to simply have left local governments with full responsibility for regulating

³⁵ p. 84.

³⁶ p. 146.

³⁷ New York: Praeger, 1972.

cable.³⁸ Richard Berner's Constraints on the Regulatory Process: A Case Study of the Regulation of CATV³⁹ also covers the politics that resulted in the 1972 rules on cable.

Steven Rivkin's A New Guide to Federal Cable Television Regulations⁴⁰ is an update of his previous work written in 1972. The second work covers the period of 1972 to 1977, during which the FCC lost several important court cases challenging its authority to regulate cable. Most important to the development of interactivity was the case in which the commission's "ancillary to broadcasting" argument was ruled insufficient to preempt state regulation of two-way, point-to-point, nonvideo communications in the National Association of Regulatory Utility Commissioners v. FCC.⁴¹ As a result, these services were subject to state-level interdiction by telephone company-dominated public service commissions. As Rivkin says, prophetically, "in time the Commission's achievements through its 1972 package of cable rules might yet prove to be ephemeral."⁴²

Kent Webb's The Economics of Cable Television,⁴³ although specifically concerned with a detailed empirical investigation on the demand and pricing of cable services, also contributes to an understanding of cable-based interactivity. He attempts to relate demand to the number of motion picture

³⁸ p. 124.

³⁹ Cambridge, MA: Ballinger, 1976.

⁴⁰ Cambridge, MA: MIT Press, 1978.

⁴¹ 533 F2nd 601 (1976).

⁴² p. 5.

⁴³ Lexington, MA: Lexington Books, 1983.

.....

.....

.....

.....

.....

.....

.....

.....

theaters in an area, the number of pay services on a cable system, and the presence of two-way capabilities and finds that none of them effect demand. He does, however, believe that there is substantial potential consumer acceptance for interactivity nonetheless.

Two articles have been written dealing specifically with the relation between the regulatory framework and the development of interactivity. Frank Lloyd's "Cable Television's Emerging Two-Way Services: A Dilemma for Federal and State Regulators"⁴⁴ considers the forces at work to bring about interactive services by reviewing the FCC's 1972 Report and Order, which not only required new systems to be built with two-way capacity but called for all systems already built to be rebuilt to provide interactive services by 1977. These actions were justified by the FCC, as Lloyd shows, as a way of causing the development of 'a nationwide broadband communications grid by cable.'⁴⁵ He reviews the Court of Appeals' decision holding this to be an unjustified extension of the commission's authority into strictly intra-state two-way nonvideo communications. The FCC was dealt another blow by the Midwest Video case, which found that the commission had no authority to adopt any requirements or regulations in this area because it did not meet the test adopted by the Supreme Court in 1968 that justified cable regulation. Thus although the Court in Southwestern Cable legitimized cable regulation as "ancillary to broadcasting" in 1979 in the Midwest Video case the two-way requirements were struck down as not fitting within this criterion.

Lloyd reviews these events but concludes that competition among cable operators for local franchises is bringing

⁴⁴ Vanderbilt Law Review Volume 36 (1983), pp. 1045-1091.

⁴⁵ 49 FCC 2nd at 1082.

two-way technology on stream at least as fast, and probably faster, than federal requirements could have done.⁴⁶

The danger, however, is that state and local authorities will step in and take up regulation of nonvideo, point-to-point communications services and prevent cable operators from entering this area. Local authorities are called a "wild card" in the regulatory structure that may either require or prohibit interactive service development.

He cautions against "premature regulation of cable television's beginning steps in providing two-way services" because it "might inhibit the financial community from making the investment in cable needed to develop these services."⁴⁷ He urges "preemptive FCC action or federal legislation...to insure that undue regulation does not inhibit cable's promise for developing interactive services," and cites the 1983 version of what was to become the Cable Act.⁴⁸ It specifically banned states and municipalities from regulating or restricting cable's two-way service offerings. The final version of the bill, however, was silent as to the proper role of state and regulatory authorities in this matter.

M.D. Learner's Harvard Law Review article also called for minimal regulation.⁴⁹ He argued that cable's "impressive technical capabilities" were being jeopardized by the regulatory regime in place. Cable produces data communications with 50-60% fewer errors than does the telephone network, has

⁴⁶ p. 1066.

⁴⁷ p. 1080.

⁴⁸ p. 1084.

⁴⁹ "The FCC and Interactive Cable Technology: The Case for Minimal Regulation," Harvard Law Review Volume 97, Number 2 (December 1983), pp. 565-83.

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

one-one hundredth of the "average per week downtime" than services delivered via the telephone network, and transmits information up to 100 times faster, according to Learner. Because of these advantages, he writes, the price of interactive and data services are able to be offered as much as 40% less than comparable telephone company services.

Yet, according to Learner, until cable operators are protected from the entry requirements that could be placed on them by state regulators most will only offer the minimal services outlined in their franchise agreements. Nor is that the only threat. Learner cites the power of telephone industry interests at the federal level as well. Congress at the time had been considering a "universal bypass" bill that would require technologies that take business away from local phone companies to contribute to a fund that would compensate them for the loss of business! He concludes that the FCC must protect two-way cable from state regulation if "national cable policy" is to be "preserved."⁵⁰

Whether cable and telephone companies are in fact rivals or allies in the development of interactive services is explored by Walter Baer's 1984 article in Telecommunications Policy.⁵¹ Baer takes Pacific Bell's proposed involvement as the owner of the network over which cable and more advanced services would be delivered in Palo Alto, California as evidence that telephone companies will be more involved in cable in the future. He notes that cable operators have only been restricted from owning cable systems in their areas since 1970, however, and that they continue to serve important functions

⁵⁰ p. 577.

⁵¹ Volume 8, Number 4 (December 1984), pp. 271-89.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for ensuring the integrity and transparency of the financial system. This section also highlights the role of various stakeholders, including government agencies, financial institutions, and businesses, in maintaining these records.

The second part of the document focuses on the challenges associated with data collection and analysis. It notes that while digital technologies have significantly improved the efficiency of data collection, there are still many obstacles to overcome. These include issues related to data quality, privacy, and security. The document suggests several strategies to address these challenges, such as implementing robust data governance frameworks and investing in advanced analytics tools.

The third part of the document discusses the impact of emerging technologies on the financial system. It explores how artificial intelligence, blockchain, and other digital innovations are transforming traditional financial services. While these technologies offer numerous benefits, such as increased efficiency and reduced costs, they also pose new risks and challenges. The document calls for a balanced approach that leverages the strengths of these technologies while mitigating their potential downsides.

The fourth part of the document addresses the need for regulatory reform. It argues that existing regulations are often outdated and do not adequately address the complexities of the modern financial system. The document proposes several key areas for reform, including strengthening consumer protection, improving systemic risk monitoring, and enhancing the effectiveness of anti-money laundering measures.

The fifth and final part of the document provides a summary of the key findings and recommendations. It reiterates the importance of a holistic approach to financial system reform, one that considers the needs of all stakeholders and the long-term sustainability of the system. The document concludes by expressing confidence in the ability of the relevant authorities to implement these reforms and create a more resilient and inclusive financial system.

as distributors of video and as operators of cable systems in areas other than those they serve with telephone services. The leaseback arrangement in particular seem to Baer to be a likely way for the telephone industry to increase its involvement with video distribution until the restrictions preventing them from offering the services themselves are removed. "The real battle between telcos and cable companies," he writes, "will probably focus on...refranchising...toward the end of this decade."⁵² He observes that the evolution of both networks

does not necessarily demand a single integrated telecommunications link to the home. There are no technical reasons why two systems cannot coexist and compete for services.⁵³

He concludes that the choice between having one or two networks reaching the home with overlapping or distinct services will be made on social and political rather than economic or technical grounds.

Several essays by Columbia professor Eli Noam also explore regulatory issues. In Proceedings from the Tenth Annual Telecommunications Policy Research Conference⁵⁴ Noam contributed a piece called "The Political Economy of Cable Television Regulation" that "analyzes the consequences of monopolistic control of channel access by local cable system operators on the diversity of programming and the free flow of information."⁵⁵ He determines that monopoly control of local cable systems is not conducive to diversity and examines three bases for a new regulatory regime: common carrier status,

⁵² p. 289.

⁵³ p. 289.

⁵⁴ edited by Oscar Gandy, Paul Espinosa, and Janusz Ordover (Norwood, NJ: Ablex, 1983).

⁵⁵ p. 118.

Handwritten title or header text at the top of the page.

Main body of handwritten text, consisting of several lines of cursive script.

A specific line or short paragraph of handwritten text, possibly a signature or a key point.

Continuation of the main body of handwritten text, showing further lines of cursive writing.

Another section of the main body of handwritten text, continuing the narrative or list.

A distinct block of handwritten text on the right side of the page, possibly a separate note or signature.

Final lines of handwritten text at the bottom of the page, possibly concluding the document.

public ownership, or direct regulation of programming. He concludes that opening up video delivery to the telephone industry is the most effective means of breaking cable's local distribution monopoly.

These arguments are extended in Noam's "Local Distribution Monopolies in Cable Television and Telephone Service: The Scope for Competition" in Telecommunications Regulation Today and Tomorrow,⁵⁶ and in "Private Sector Monopolies: The Case of Cable Television Franchises," in Productivity and Public Policy,⁵⁷ as well as in "Competitive Entry into Local Cable Transmission," in Policy Research in Telecommunications.⁵⁸

Finally, of the seventy PhD dissertations written about cable in the last decade a fifth were concerned with regulation.⁵⁹ Edward Shafer's, for example, focused on the role of the FCC and what influenced the FCC commissioners to make the decisions they reached during the twenty year period between 1959 and 1979.⁶⁰ Sixteen of the twenty-six commissioners were interviewed and a theory of regulation based on "transition" and "consensus" was developed. He concludes that staff and personnel changes, new information resulting from research within the agency, outside pressures, and the desire for consensus provide a framework for understanding the agency's actions.

⁵⁶ Eli Noam, editor (New York: Harcourt Brace Jovanovich, 1983).

⁵⁷ Marc Holzer and Stuart Nagel, editors (Beverly Hills, CA: Sage, 1984).

⁵⁸ Vincent Mosco, editor (Norwood, NJ: Ablex, 1983).

⁵⁹ Dissertation Abstracts Online, January 1977 to August 1988.

⁶⁰ "An Assessment of the Role of Federal Regulation in the Development of the Cable Television Industry," (George Washington University, 1980).

The first step in the process of identifying a problem is to clearly define the issue. This involves gathering all relevant information and understanding the context in which the problem is occurring. Once the problem is defined, the next step is to analyze the causes and effects. This can be done through a process of brainstorming and identifying the root causes of the problem.

After the causes have been identified, the next step is to develop a plan of action. This plan should outline the specific steps that will be taken to address the problem, as well as the resources that will be needed to implement the plan. It is important to ensure that the plan is realistic and achievable, and that it takes into account any potential obstacles or challenges that may arise.

Once the plan has been developed, the next step is to implement the plan. This involves putting the plan into action and monitoring the progress of the implementation. It is important to stay flexible and adjust the plan as needed, as circumstances may change over time. Finally, once the problem has been resolved, it is important to evaluate the effectiveness of the solution and to document the lessons learned for future reference.

In conclusion, the process of identifying and solving a problem is a complex and multi-step process. It requires a clear understanding of the problem, a thorough analysis of the causes and effects, a well-developed plan of action, and a commitment to implementing the plan and monitoring the progress. By following these steps, it is possible to effectively address a wide range of problems and achieve a successful outcome.

The second step in the process of identifying a problem is to clearly define the issue. This involves gathering all relevant information and understanding the context in which the problem is occurring. Once the problem is defined, the next step is to analyze the causes and effects. This can be done through a process of brainstorming and identifying the root causes of the problem.

After the causes have been identified, the next step is to develop a plan of action. This plan should outline the specific steps that will be taken to address the problem, as well as the resources that will be needed to implement the plan. It is important to ensure that the plan is realistic and achievable, and that it takes into account any potential obstacles or challenges that may arise.

Once the plan has been developed, the next step is to implement the plan. This involves putting the plan into action and monitoring the progress of the implementation. It is important to stay flexible and adjust the plan as needed, as circumstances may change over time. Finally, once the problem has been resolved, it is important to evaluate the effectiveness of the solution and to document the lessons learned for future reference.

b. The Franchising Process

A second broad category of literature concerned with regulation explores in whole or in part the element in cable regulation that makes it unique: a local component. It is quite unlike the regulatory structure governing the broadcasting, publishing, or the telephone industries. In a regulatory regime for communications that has become more global and international with the introduction of new distribution technologies such as satellites the local franchising process is an oddity. One of the central policy goals of the cable industry in the last decade has been to throw off local regulation or at least to radically limit it. In some measure it has succeeded.

This regulatory regime provides a point of access into the process so that social demands can be articulated, as happens very rarely in the regulatory framework governing the other technologies of communication. Unlike the automatic relicensing process for holders of broadcast licenses, for example, the franchising (and to a lesser degree refranchising) process for cable television has historically been a means for interventions concerned with broader questions of social impact. As one local regulator has written in defense of the franchising process:

Not suprisingly, the only telecommunications infrastructure open to public planning and participation became the focal point of public concerns over the social role of the media.⁶¹

Whether the franchising process as re-written by the 1984 Cable Act removes this obstacle to free market sale and assignment of cable franchises is still an open question, and will be discussed below.

⁶¹ Nancy Jesuale, "The United States: Faith in the Marketplace," in Dutton et. al. Wired Cities (Boston: G.K. Hall, 1987), p. 55.

The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for ensuring transparency and accountability in the organization's operations. This section also outlines the various methods and tools used to collect and analyze data, highlighting the need for consistency and reliability in the information gathered.

The second part of the document focuses on the implementation of these practices across different departments and projects. It provides detailed instructions on how to set up the necessary systems and procedures, ensuring that all staff members are trained and equipped to handle the data effectively. This section also addresses potential challenges and offers solutions to ensure a smooth transition to the new system.

The third part of the document discusses the ongoing monitoring and evaluation of the implemented practices. It explains how regular audits and reviews are conducted to assess the effectiveness of the systems and to identify areas for improvement. This section also highlights the importance of continuous communication and collaboration between all stakeholders to ensure that the organization remains agile and responsive to changing circumstances.

Finally, the document concludes with a summary of the key findings and recommendations. It reiterates the importance of maintaining high standards of accuracy and transparency in all organizational activities and encourages all staff members to take ownership of their roles in this process. The document also provides contact information for further assistance and support.

Prepared by: [Name] | Date: [Date] | Contact: [Phone Number] | Email: [Email Address]

The "premier textbook devoted exclusively to cable television,"⁶² for example, clearly shows interactivity as having been greatly enhanced by its articulation in the franchising process. Thomas Baldwin and Stevens McVoy's Cable Communication,⁶³ written in 1983, says that

videotext information retrieval systems are becoming standard in franchise applications [because] franchising battles are providing incentive for offering videotext services immediately.

They cite the lack of hardware standards to accomplish interactivity as the key constraint to the development of such services, but speculate that interactivity is key to the future commercial success of cable. "In the end," they write, "it may be two-way services that distinguish cable from other communications services and provide the competitive edge."⁶⁴

Their characterization of franchising authorities as the key force producing this kind of innovation is worth quoting in detail:

The cable industry has been forced into experimenting with two-way services by the demands of franchising authorities and competition for franchises. Only the most committed of these companies are likely to sustain the efforts in the absence of early realization of a demand that can be met economically. In the meantime, the cost of experimentation in two-way may be well worth the value of a franchise.⁶⁵

This perspective lends credence to the theory (developed below) that the virtual elimination of the competition for franchises and the considerable reduction of the power of franchising authorities--both accomplished by the federal Cable Communications Act of 1984--have drastically changed the

⁶² Ronald Garay, Cable Television: A Reference Guide to Information (New York: Greenwood Press, 1988), p. 1.

⁶³ Englewood Cliffs, NJ: Prentice-Hall, 1983.

⁶⁴ pp. 68, 71, 141.

⁶⁵ p. 141.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for ensuring transparency and accountability in financial reporting. This section also highlights the role of internal controls in preventing errors and fraud, and the need for regular audits to verify the accuracy of the data.

2. The second part of the document focuses on the importance of clear communication and collaboration between all stakeholders involved in the process. It stresses that effective communication is key to ensuring that everyone is on the same page and that all necessary information is shared in a timely and accurate manner. This section also discusses the importance of documenting all decisions and actions taken, and the need for regular updates and reports to keep all parties informed of the current status of the project.

3. The third part of the document discusses the importance of maintaining a high level of integrity and ethical standards in all business dealings. It emphasizes that honesty and transparency are essential for building trust and maintaining a positive reputation. This section also highlights the importance of adhering to all applicable laws and regulations, and the need for a strong code of ethics to guide all actions and decisions.

4. The fourth part of the document discusses the importance of maintaining a strong relationship with all stakeholders, including customers, suppliers, and regulatory bodies. It emphasizes that a strong relationship is essential for ensuring that all parties are satisfied and that the organization is able to meet its obligations. This section also discusses the importance of providing excellent customer service and the need for regular communication and updates to all stakeholders.

5. The fifth part of the document discusses the importance of maintaining a strong financial position and ensuring that all financial obligations are met in a timely and accurate manner. It emphasizes that a strong financial position is essential for ensuring the long-term success and sustainability of the organization. This section also discusses the importance of budgeting and financial planning, and the need for regular financial reviews and reports to ensure that the organization is on track to meet its financial goals.

6. The sixth part of the document discusses the importance of maintaining a strong operational position and ensuring that all operations are conducted in a safe, efficient, and effective manner. It emphasizes that a strong operational position is essential for ensuring that the organization is able to deliver high-quality products and services to its customers. This section also discusses the importance of maintaining a strong safety record and the need for regular safety audits and training to ensure that all employees are aware of and follow all safety protocols.

7. The seventh part of the document discusses the importance of maintaining a strong compliance position and ensuring that all activities are conducted in accordance with all applicable laws and regulations. It emphasizes that a strong compliance position is essential for ensuring that the organization is able to avoid legal and financial penalties and maintain a positive reputation. This section also discusses the importance of staying up-to-date on all changes in laws and regulations, and the need for regular compliance audits and training to ensure that all employees are aware of and follow all compliance requirements.

8. The eighth part of the document discusses the importance of maintaining a strong environmental position and ensuring that all activities are conducted in a sustainable and environmentally friendly manner. It emphasizes that a strong environmental position is essential for ensuring that the organization is able to meet its obligations to the environment and its stakeholders. This section also discusses the importance of implementing a strong environmental management system and the need for regular environmental audits and training to ensure that all employees are aware of and follow all environmental protocols.

industry's involvement with interactive services. If it is true, as Baldwin and McVoy state, that franchising authorities have been the leading force working on behalf of interactive service development, it would hold true that a diminution of their power would reduce the industry's interest in this kind of innovation. This is essentially what happened, as will be explored in detail in section IV.

Other observers reinforce the perspective taken by Baldwin and McVoy on the role of competitive franchising in producing certain kinds of technological innovation in the industry. Timothy Hollings' Beyond Broadcasting: Into the Cable Age⁶⁶ shows that at first municipalities set minimum standards for new systems that advanced the industry beyond one-way video distribution. "The competitiveness of the franchising process and the consequent power of local authorities," Hollings writes, "has undoubtedly been responsible for this rise in standards and hence in costs."⁶⁷ Yet it is not the minimum standards themselves that produced interactivity. "Competition has frequently raised bids well above the stipulated minimum," Hollings observes. It is this "competitive and local character of the American franchising process" that leads to "impractical bids."⁶⁸

In Hollings' discussion of cable's involvement with videotex development he repeats his evaluation of these activities as essentially a franchising ploy: "Once again it must be said that such a commitment reflects more the competitiveness of franchise bidding than a belief in videotex's short- or

⁶⁶ London: BFI Publishing, 1984.

⁶⁷ p. 127.

⁶⁸ p. 127, 130.

The first part of the text discusses the importance of maintaining accurate records of all transactions. It emphasizes that this practice is essential for ensuring transparency and accountability in financial reporting. The text also highlights the need for regular audits to identify any discrepancies or errors in the records.

Furthermore, the text addresses the role of management in overseeing the financial operations of the organization. It notes that management should establish clear policies and procedures to guide the staff in handling financial matters. This includes setting up a robust system of internal controls to minimize the risk of fraud and misappropriation of funds.

The text also touches upon the importance of communication in financial management. It suggests that management should maintain open lines of communication with the staff and other stakeholders to ensure that everyone is aware of the organization's financial goals and the progress towards achieving them.

In conclusion, the text underscores the significance of sound financial management practices for the long-term success and sustainability of any organization. It calls for a commitment to accuracy, transparency, and effective communication in all financial dealings.

The following table provides a detailed breakdown of the financial data for the period under review. It includes information on income, expenses, and the resulting net profit.

Category	Income	Expenses	Net Profit
Sales	1000	0	1000
Cost of Goods Sold	0	600	-600
Operating Expenses	0	200	-200
Other Income	50	0	50
Other Expenses	0	100	-100
Total	1050	900	150

The data indicates that the organization has achieved a net profit of 150 units over the period. This is primarily due to the revenue generated from sales, which significantly exceeds the total expenses.

It is important to note that the net profit is a preliminary calculation and should be subject to a thorough audit before being used for financial reporting.

medium-term profitability."⁶⁹ He notes, however, that cable operators are more confident about the future potential of institutional networks offering point-to-point data communications for business customers, potentially a step toward consumer-oriented interactivity. He observes that these institutional loops have been designed of a size and capacity that is generally far in excess of franchise requirements.

David Rice's "Substantive Issues in Cable Television Franchising"⁷⁰ is an introduction to the issues citizens and municipal decision-makers must face in franchising a cable operator. He advises cities to "build a modest upstream capacity while providing for future expansion as demand grows." A franchise should include a "carefully drafted clause with an appropriate trigger mechanism for activation of upstream capacity." He acknowledges that expensive multi-trunk cable systems were being built at the time "as a result of furious competition for franchises."⁷¹

Frank Lloyd's "Cable Television's Emerging Two-Way Services: A Dilemma for Federal and State Regulators"⁷² considers further the forces at work to bring about interactive services. He reviews the FCC's 1972 Report and Order, which not only required new systems to be built with two-way capacity but called for all systems already built to be rebuilt to provide interactive services by 1977. These actions were justified by the FCC as a way of causing

⁶⁹ p. 224.

⁷⁰ Journal of Media Law and Practice (London), Volume 4 No. 1 (May 1983), pp. 58-94.

⁷¹ p. 74, 73.

⁷² Vanderbilt Law Review Volume 36 (1983), pp. 1045-1091.

1. The first step in the process of identifying a problem is to recognize that a problem exists. This is often done by comparing current performance with a desired state or goal. Once a problem is identified, the next step is to define the problem more precisely. This involves determining the scope of the problem, the resources available, and the constraints that may be affecting the problem.

2. The second step is to generate possible solutions. This is often done through brainstorming or other creative techniques. It is important to generate a wide range of solutions, even if some seem unlikely or impractical. The next step is to evaluate these solutions. This involves comparing each solution against the criteria established in the first step. The solution that best meets these criteria is the one that should be implemented.

3. The third step is to implement the chosen solution. This involves putting the solution into action and monitoring its progress. It is important to have a clear plan for implementation and to communicate this plan to all those involved. The next step is to evaluate the results of the implementation. This involves comparing the actual results with the expected results. If the results are not as expected, it may be necessary to revise the solution or the implementation process.

4. The fourth step is to evaluate the results of the implementation. This involves comparing the actual results with the expected results. If the results are not as expected, it may be necessary to revise the solution or the implementation process. The final step is to reflect on the entire process. This involves thinking about what was learned from the experience and how this knowledge can be applied to future problems.

5. The fifth step is to reflect on the entire process. This involves thinking about what was learned from the experience and how this knowledge can be applied to future problems. The final step is to reflect on the entire process. This involves thinking about what was learned from the experience and how this knowledge can be applied to future problems.

6. The sixth step is to reflect on the entire process. This involves thinking about what was learned from the experience and how this knowledge can be applied to future problems. The final step is to reflect on the entire process. This involves thinking about what was learned from the experience and how this knowledge can be applied to future problems.

the development of 'a nationwide broadband communications grid by cable.'⁷³ He reviews the Court of Appeals' decision holding this to be an unjustified extension of the commission's authority into strictly intra-state two-way nonvideo communications. The FCC was dealt another blow by the Midwest Video case, which found that the commission had no authority to adopt any requirements or regulations in this area because it did not meet the test adopted by the Supreme Court in 1968 that justified cable regulation. Thus although the Court in Southwestern Cable legitimated cable regulation as "ancillary to broadcasting" in 1979 in the Midwest Video case the two-way requirements were struck down as not fitting within this criterion.

Lloyd reviews these events but concludes that

competition among cable operators for local franchises is bringing two-way technology on stream at least as fast, and probably faster, than federal requirements could have done.⁷⁴

The danger, however, is that state and local authorities will step in and take up regulation of nonvideo, point-to-point communications services and prevent cable operators from entering this area. Local authorities are called a "wild card" in the regulatory structure that may either require or prohibit interactive service development.

He cautions against "premature regulation of cable television's beginning steps in providing two-way services" because it "might inhibit the financial community from making the investment in cable needed to develop these services."⁷⁵ He urges "preemptive FCC action or federal legisla-

⁷³ 49 FCC 2nd at 1082.

⁷⁴ p. 1066.

⁷⁵ p. 1080.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part outlines the various methods and tools used to collect and analyze data. This includes the use of surveys, interviews, and data mining techniques to gather insights into customer behavior and market trends.

3. The third part focuses on the analysis and interpretation of the collected data. It describes how statistical models and data visualization tools are employed to identify patterns and trends that can inform strategic decision-making.

4. The fourth part discusses the challenges and limitations of data analysis. It highlights issues such as data quality, privacy concerns, and the complexity of interpreting large datasets, and offers strategies to address these challenges.

5. The fifth part concludes by summarizing the key findings and recommendations. It stresses the need for a continuous and iterative process of data collection and analysis to stay competitive in a rapidly changing market environment.

-
- Data Collection
 - Data Analysis

tion...to insure that undue regulation does not inhibit cable's promise for developing interactive services," and cites the 1983 version of what was to become the Cable Act.⁷⁶ It specifically banned states and municipalities from regulating or restricting cable's two-way service offerings. The final version of the bill, however, was silent as to the proper role of state and regulatory authorities in this matter.

William Dutton, Herbert Dordick, and Amy Phillips characterize the dispute over the proper activities of the cable industry as being based more on values and interests than upon a disagreement over facts.⁷⁷ There are technical and legal complexities, they acknowledge, but "the political disagreements outweigh legal and technical problems."⁷⁸

They outline the reasons people defend the process of local franchising, unique to the cable industry, as a means by which the government insures that cable serves all citizens without discrimination, forces the companies to be responsive to local advertising and programming needs, and protects the First Amendment right of listeners to receive free and uncensored speech via public access channels. The franchising process is seen as "establishing cities as effective bargaining agents for the general public."⁷⁹ Ultimately, they conclude that additional research is unlikely to resolve the proper role of local authorities in the regulation of cable. "Fundamentally," they decide,

the cable debate is a struggle among perspectives on the appropriate role of government not only in the American economy but

⁷⁶ p. 1084.

⁷⁷ "Perspectivies on National Cable Policy: Focusing the Issues," Telematics and Informatics Volume 1, Number 2 (1984), pp. 153-170.

⁷⁸ p. 154.

⁷⁹ p. 167.

1. The first step in the process of identifying a problem is to recognize that a problem exists. This often involves gathering information and observing the situation.

2. Once a problem is identified, the next step is to define it clearly. This involves determining the scope of the problem and the specific goals that need to be achieved.

3. After defining the problem, the next step is to generate potential solutions. This often involves brainstorming and considering different perspectives.

4. The next step is to evaluate the potential solutions. This involves weighing the pros and cons of each option and considering the resources available.

5. Once a solution has been chosen, the next step is to implement it. This involves putting the solution into action and monitoring progress.

6. Finally, the last step is to evaluate the results. This involves assessing whether the solution has effectively solved the problem and whether any adjustments need to be made.

The process of identifying a problem is a continuous one, and it often involves revisiting previous steps as more information becomes available.

In addition, it is important to remember that identifying a problem is not always straightforward. Sometimes, the problem may be hidden or difficult to see.

Therefore, it is essential to be open-minded and to look for signs of trouble.

By following these steps, you can effectively identify and solve problems in your life.

The first step in the process of identifying a problem is to recognize that a problem exists. This often involves gathering information and observing the situation.

Once a problem is identified, the next step is to define it clearly. This involves determining the scope of the problem and the specific goals that need to be achieved.

After defining the problem, the next step is to generate potential solutions. This often involves brainstorming and considering different perspectives.

The next step is to evaluate the potential solutions. This involves weighing the pros and cons of each option and considering the resources available.

Once a solution has been chosen, the next step is to implement it. This involves putting the solution into action and monitoring progress.

Finally, the last step is to evaluate the results. This involves assessing whether the solution has effectively solved the problem and whether any adjustments need to be made.

The process of identifying a problem is a continuous one, and it often involves revisiting previous steps as more information becomes available.

In addition, it is important to remember that identifying a problem is not always straightforward. Sometimes, the problem may be hidden or difficult to see.

Therefore, it is essential to be open-minded and to look for signs of trouble.

By following these steps, you can effectively identify and solve problems in your life.

also in the provision of communications and information services.⁸⁰

Without a more comprehensive policy for the merging of the telecommunications and computing industries, they decide that small scale, local experimentation with policy alternatives will continue.

Another scholar to identify the critical role played by local regulators is Ithiel de Sola Pool. Pool shows that "from a constitutional point of view nothing could be more different than cable television and television."⁸¹ First cable was able to avoid FCC jurisdiction by making the case that it did not use broadcast spectrum and thus was outside of the commission's authority. Having done that, Pool shows that it then set out to become precisely the equivalent of television--a new means of delivering television to households.

However, Pool is relatively positive about cable's future and the prospect that it will become a "multiservice carrier." In his analysis, the demands of municipalities for large amounts of bandwidth have been "wise" and the industry has been "short-sighted...tempted by quick profits rather than a permanently viable system."⁸² To be viable in the long run cable must discover non-entertainment applications. The problem, as Pool characterizes it, is that "cable systems have been run by people in the entertainment business."⁸³ They lack the technical competence and research laboratories of the telephone industry. Pool admits only that "there may be a delay in the transformation of cable networks into multiservice common carriers," but

⁸⁰ p. 169.

⁸¹ p. 161.

⁸² p. 168, 170.

⁸³ p. 175.

1. The first step in the process of identifying a problem is to recognize that a problem exists. This is often done by comparing current performance with a desired state or goal. For example, a manager might notice that sales are declining or that customer satisfaction is low. Once a problem is identified, the next step is to define it more precisely. This involves determining the scope of the problem, its causes, and its effects. For instance, a manager might define a problem as "a 10% decrease in sales over the last quarter, primarily due to a loss of market share in the competitive market." This definition helps to narrow down the focus of the problem and provides a clear starting point for further investigation.

2. The second step in the process is to gather information about the problem. This involves collecting data and facts that are relevant to the problem. For example, a manager might gather data on sales trends, market conditions, and customer feedback. This information is then analyzed to identify patterns and trends that can help to explain the problem. For instance, a manager might discover that sales are declining because of a new competitor entering the market or because of a change in customer preferences. This information is then used to develop a hypothesis about the cause of the problem.

3. The third step in the process is to develop a hypothesis about the cause of the problem. A hypothesis is a statement that predicts the cause of the problem. For example, a manager might hypothesize that the decline in sales is due to a loss of market share to a new competitor. This hypothesis is then tested by gathering more information and by conducting experiments or simulations. For instance, a manager might conduct a market survey to determine if a new competitor has entered the market and if it is gaining market share. This testing process helps to confirm or refute the hypothesis and provides a clear path forward for the problem-solving process.

4. The fourth step in the process is to develop a solution to the problem. This involves identifying the actions that need to be taken to address the problem. For example, a manager might develop a solution that involves increasing marketing efforts, improving customer service, or developing new products. This solution is then implemented and its effectiveness is monitored. For instance, a manager might implement a new marketing campaign and track sales trends to see if there is an improvement. This monitoring process helps to evaluate the success of the solution and provides a clear path forward for the problem-solving process.

5. The fifth and final step in the process is to evaluate the results of the solution. This involves comparing the current performance with the desired state or goal. For example, a manager might evaluate the results of a solution by comparing sales trends with the desired state. This evaluation helps to determine if the solution was effective and if the problem has been resolved. For instance, a manager might find that sales have increased and that the problem has been resolved. This evaluation process provides a clear path forward for the problem-solving process and helps to ensure that the problem is fully resolved.

1. The first step in the process of identifying a problem is to recognize that a problem exists. This is often done by comparing current performance with a desired state or goal. For example, a manager might notice that sales are declining or that customer satisfaction is low. Once a problem is identified, the next step is to define it more precisely. This involves determining the scope of the problem, its causes, and its effects. For instance, a manager might define a problem as "a 10% decrease in sales over the last quarter, primarily due to a loss of market share in the competitive market." This definition helps to narrow down the focus of the problem and provides a clear starting point for further investigation.

believes that with time cable's users will demand it and cities will enforce this demand. Pool writes,

On successive renewals of franchises, cities can gradually shift the terms away from the initial broadcasting conception of the cable system to a common carrier conception....Since no franchisee is guaranteed renewal of a franchise, the entrepreneur from the start has to calculate a budget to recover costs within the franchise period...No confiscation would follow from obliging systems to lease channels more liberally under successive franchise renewals...Most important of all, cities should require large numbers of channels on the system...The main responsibility for ensuring free and pluralistic cable networks that allow leased access for all who wish it lies with the cities.⁸⁴

He acknowledges that there are First Amendment limits on what cities may do,

but within that scope they may set up their cable systems in a number of ways. Some will move toward a pluralistic system of cable access faster and others more slowly, but the direction of the movement for a free society is clear.⁸⁵

Mitchell Moss and Robert Warren's review of the "Public Policy and Community-Oriented Uses of Cable Television" leaves them somewhat pessimistic concerning the reality and future promise of interactivity.⁸⁶ They cite the hope of cable, that

systems with a large number of channels, interactive capacity, and the ability to vary the spatial transmission can create opportunities for enhancing public dialogue among citizens and between citizens and officials, directing citizen participation in public proceedings, and improving the efficiency of municipal services and administrative process.⁸⁷

⁸⁴ p. 187-8.

⁸⁵ p. 188.

⁸⁶ Urban Affairs Quarterly Volume 2, Number 2 (December 1984), pp. 233-254.

⁸⁷ p. 235.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It covers both qualitative and quantitative approaches, highlighting the strengths and limitations of each.

3. The third part of the document focuses on the application of statistical methods to the collected data. It discusses how these methods can be used to identify trends, patterns, and correlations within the data set.

4. The fourth part of the document addresses the challenges and limitations of data analysis. It discusses issues such as data quality, bias, and the potential for misinterpretation of results.

5. The final part of the document provides a summary of the key findings and conclusions. It emphasizes the importance of ongoing monitoring and evaluation to ensure the continued relevance and accuracy of the data.

6. The document concludes with a list of references and a bibliography, providing sources for further reading and research on the topics discussed.

7. The document is intended for use by researchers, analysts, and decision-makers in various fields, providing a comprehensive overview of the current state of data analysis and its applications.

By the time this article was written in 1984 operators such as Warner had begun going back to municipalities and renegotiating the agreements that won them their franchises. As a result, Warren and Moss observe that the prospects for interactive cable are much diminished. "Some cable operators are withdrawing from bidding for franchises when city governments require extensive and expensive public-use provisions," they write.⁸⁸

Because the data on the community-oriented uses of cable has been "uneven, limited in detail, and at times, incomplete," they conducted a small study of cable with the limited data available on the nation at large, the greater amount of data on the top fifty cable systems, and much more detailed sample of cable systems in the New York metropolitan area. They found that three-quarters of the systems in the US in 1981 had not even one governmental, educational, public access, or leased access channel. There are no records for the extent of interactive services (although it is estimated by Baer that less than 2% of all subscribers had access to any interactive services)⁸⁹, so they looked at this measure of innovation in the top fifty markets. Less than a fourth of them had interactive capacity and a undetermined percent of them had actually operating interactive services. Moss and Warren conclude that the number having access to such services is "extremely small."⁹⁰ In the New York region, fewer than 10% of the systems surveyed had two-way capacity, which were reported to be receiving little use.

⁸⁸ p. 236.

⁸⁹ Baer, op cit, p. 284.

⁹⁰ p. 242.

The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting. The second part details the various methods used to collect and analyze data, including surveys, interviews, and focus groups. The third part presents the findings of the study, highlighting key trends and insights. The final part concludes with recommendations for future research and practical applications of the findings.

The study was conducted over a period of six months, involving a total of 150 participants. The data collected was analyzed using a combination of qualitative and quantitative methods. The results show that there is a significant correlation between the variables studied, and that the findings have important implications for the field.

In conclusion, this research provides valuable insights into the complex relationships between the variables examined. The findings suggest that there is a need for further research in this area, and that the results can be applied to improve practice and policy.

Dr. Jane Doe
 Department of Economics
 University of California, Berkeley
 480 Evans Hall
 Berkeley, CA 94720
 Phone: (415) 495-1500
 Email: jane.doe@berkeley.edu

Given the effort underway to remove the guidance at the federal level that had survived court challenge Moss and Warren predicted that cable's future as a community communications medium were not good. Unless access and interactive programming become clear goals of public policy they believed that "there is little reason to believe that this record will be improved upon."⁹¹

c. The Cable Communications Policy Act of 1984

In part, Moss and Warren's fears were justified and in part allayed by the passage of the Cable Communications Act in December 1984. Public access was formalized and legitimized by the Act, but interactive services were seriously compromised. With a virtual presumption of renewal, operators were freed from the competition that had in the past led to the more technological-ly-advanced systems. By the mid-1980s they were virtually unheard of in franchise bids, but for the most part by this time the largest cities were already franchised and the bulk of the franchise-holders were now protected from having to compete with other cable industry interests during refranchising. This was an unusual event in any case before the Act, but it became entirely unknown afterwards.

Since the Act several articles have been written assessing it and criticizing it, some of which implicate interactive services. W.O. Knox⁹² attacks the franchising process, and Michael Wirth and Linda Cobb-Reiley attack the intellectual and legal foundations not only of the franchising

⁹¹ p. 251.

⁹² "Cable Franchising and the First Amendment: Does The Franchising Process Contravene First Amendment Rights?" Federal Communications Law Journal Volume 36, Number 3 (December 1984), pp. 317-335.

The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for ensuring transparency and accountability in financial matters. The text outlines various methods for organizing and storing these records, including the use of spreadsheets, databases, and physical filing systems. It also highlights the need for regular audits and reviews to identify any discrepancies or errors in the data.

The second part of the document focuses on the legal and regulatory requirements that govern financial reporting. It details the specific rules and standards that apply to different types of organizations and industries. This section provides a comprehensive overview of the relevant laws and regulations, including those related to tax reporting, securities disclosure, and anti-money laundering. It also discusses the consequences of non-compliance with these requirements, such as fines, penalties, and potential legal action.

The third part of the document explores the role of technology in modern financial management. It discusses how various software solutions and digital tools can streamline financial processes, improve data accuracy, and enhance overall efficiency. This section covers topics such as cloud-based accounting systems, mobile applications for expense tracking, and the use of artificial intelligence in fraud detection. It also addresses the challenges associated with data security and privacy in the digital age, providing recommendations for best practices in protecting sensitive financial information.

The final part of the document offers practical advice and tips for implementing effective financial management strategies. It provides a step-by-step guide for setting up a robust financial system, from initial planning and budgeting to ongoing monitoring and reporting. The text also discusses the importance of staying up-to-date with the latest trends and developments in the field of finance, and offers resources for further learning and professional development.

In conclusion, this document provides a comprehensive overview of the key aspects of financial management, from record-keeping and legal compliance to the integration of technology and practical implementation strategies. It is intended to serve as a valuable resource for anyone looking to improve their financial practices and ensure the long-term success of their organization.

process but the Cable Act as well. To Knox the franchising process actually delays the development of advanced services because it is in the interests of the operator to delay their introduction.

Once an operator has received a franchise, it will be in his own best interest to delay the development and installation of new technologies until it is time for the renewal of his franchise. This will enable him to put some great "new" ideas on his renewal application so as to allow him to maintain the franchise.⁹³

Although public access channels are provided for in the franchising process Knox sees them as a restriction on the First Amendment rights of cable operators. "It is for the marketplace," he writes, "to create such limitations and uses, if any."⁹⁴

Wirth and Cobb-Reiley base their objections on cable systems as a "limited public forum" in which governmental regulation is essentially forbidden.⁹⁵ Taxation, access provisions, and the franchising process itself are seen, therefore, as unconstitutional.

Thomas Hazlett's Journal of Broadcasting and Electronic Media article in 1987 is another post-Cable Act critique of the franchising process.⁹⁶ Local governments are seen as creating "market power" by creating monopolies and putting them up for auction. The "supranormal profits" created by this process go to local politicians and selected interest groups. He notes that it this particular type of competition--for franchises--is linked with a

⁹³ p. 330.

⁹⁴ p. 333.

⁹⁵ "A First Amendment Critique of the 1984 Cable Act," Journal of Broadcasting and Electronic Media Volume 31, Number 4 (1987), pp. 391-407.

⁹⁶ "The Policy of Exclusive Franchising in Cable Television," in Volume 31, Number 1 (Winter 1987), pp. 1-20.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to support effective decision-making.

3. The third part of the document focuses on the role of technology in data management and analysis. It discusses how modern software solutions can streamline data collection, storage, and reporting, thereby improving efficiency and accuracy.

4. The fourth part of the document addresses the challenges associated with data management, such as data quality, security, and privacy. It provides strategies to mitigate these risks and ensure that data is used responsibly and ethically.

5. The fifth part of the document concludes by summarizing the key findings and recommendations. It stresses the importance of ongoing monitoring and evaluation to ensure that data management practices remain effective and up-to-date.

6. The sixth part of the document provides a detailed overview of the data collection process, including the identification of data sources, the design of data collection instruments, and the implementation of data collection procedures.

7. The seventh part of the document discusses the various methods used for data analysis, such as descriptive statistics, inferential statistics, and regression analysis. It explains how these methods are used to interpret the data and draw meaningful conclusions.

8. The eighth part of the document focuses on the presentation of data, including the use of tables, charts, and graphs. It provides guidelines for creating clear and concise reports that effectively communicate the results of the data analysis.

9. The ninth part of the document discusses the importance of data security and privacy. It outlines the measures that should be taken to protect sensitive data from unauthorized access and ensure compliance with relevant regulations.

10. The tenth part of the document concludes by providing a final summary of the document's content and offering suggestions for further research and improvement in data management practices.

11. The eleventh part of the document provides a detailed overview of the data collection process, including the identification of data sources, the design of data collection instruments, and the implementation of data collection procedures.

12. The twelfth part of the document discusses the various methods used for data analysis, such as descriptive statistics, inferential statistics, and regression analysis. It explains how these methods are used to interpret the data and draw meaningful conclusions.

particular type of innovation and industry development. "Not all competitive roads," he acknowledges, "lead to the same consumer welfare destination."⁹⁷

Finally among the journal articles on Cable Act, Wenmouth Williams and Kathleen Mahoney have published an assessment of "The Perceived Impact of the Cable Policy Act of 1984."⁹⁸ Local regulators facing franchising hearings were the least pleased with the new regime and cities that retained rate regulatory authority were most likely to be content with the new law. Conflict between operators and cities may increase, however, because "municipalities lost much regulatory power while retaining the same level of service oversight." Most participants, they conclude, are "fairly satisfied with their situation."⁹⁹

2. Innovation and Interactivity

The second body of research serving as a foundation to this work is that which has been written about technological innovation in the industry and the development of interactivity in particular. Although a few works have been written that detail cable's evolution as an alternative program distribution channel, mostly what is of concern to this inquiry is what has been written about what was thought to be cable's unique capacity to provide both television signals into homes and a return signal from the home.

Only two works exist on innovation in general, both journalistic rather than scholarly. Both Kirstin Beck's Cultivating the Wasteland: Can Cable Put

⁹⁷ p. 18, 19.

⁹⁸ in Journal of Broadcasting and Electronic Media Volume 31, Number 2 (Spring 1987), pp. 193-205.

⁹⁹ p. 203, 204.

1. The first step in the process of identifying a problem is to recognize that a problem exists. This is often done by comparing current performance with a desired state or goal. For example, a manager might notice that sales are declining or that customer satisfaction is low. Once a problem is identified, the next step is to define it more precisely. This involves determining the scope of the problem, its causes, and its effects. For instance, a manager might define a problem as "a 10% decrease in sales over the last quarter, primarily due to a loss of market share in the competitive market." This definition helps to narrow down the focus of the problem and provides a clear starting point for further investigation.

2. The second step in the process is to gather information about the problem. This involves collecting data and facts that are relevant to the problem. For example, a manager might gather data on sales trends, customer feedback, and market conditions. This information is then analyzed to identify patterns and trends that can help to explain the problem. For instance, a manager might discover that sales are declining in all markets, but the decline is most pronounced in the competitive market. This information is then used to develop a hypothesis about the cause of the problem. For example, the manager might hypothesize that the decline in sales is due to a loss of market share in the competitive market.

3. The third step in the process is to develop a solution. This involves identifying potential solutions and evaluating them based on their feasibility and effectiveness. For example, a manager might identify several potential solutions, such as increasing marketing efforts, improving customer service, or developing new products. Each solution is then evaluated based on its potential to address the problem and its impact on the organization. For instance, a manager might evaluate the potential solutions based on their cost, their time to implement, and their potential to increase sales. The most promising solution is then selected and implemented. For example, the manager might decide to increase marketing efforts in the competitive market.

the Vision Back in TV?¹⁰⁰ and Thomas Whiteside's three part series in New Yorker in 1985¹⁰¹ explored the pressures on cable as a programming innovator. Although both acknowledge that there are marginal services for audiences not served well by broadcast television, for the most part they conclude, in Whiteside's words, that "the cost-per-thousand notion of marketing efficiency...remains the supreme consideration in commercial television."¹⁰²

Interactivity is somewhat different than programming innovation because it was thought at one time to have a revenue-producing potential. Thus, unlike programming for small audiences, interactivity was represented as being the path to new sources of revenue to operators to offset the costs of providing it.

Interactivity is an easy concept to grasp superficially but a difficult one to define rigorously. It is, as many have identified, the key conceptual element separating both the "new" media from the old and the new way of studying communication from the old.¹⁰³ First, interactivity is an inherent property of a functioning communication process, although not even unmediated exchanges between humans inhabiting the same time and space are always successful. As Rogers points out, "if interactivity means a two-way exchange of utterances in which the third remark is influenced by the bearing of the second on the first" then not all human face-to-face communications are

¹⁰⁰ New York: American Council for the Arts, 1983.

¹⁰¹ "Onward and Upward with the Arts," May 20, May 27, June 3, 1985.

¹⁰² June 3, p. 105.

¹⁰³ Everett Rogers credits interactivity with "driving the epistemological revolution in communication science" in Communication Technology: The New Media in Society (New York: The Free Press, 1986), p. 194.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in the context of financial reporting and auditing. The text highlights that without reliable records, it becomes difficult to verify the accuracy of financial statements and to identify any potential discrepancies or irregularities.

2. The second part of the document focuses on the role of internal controls in ensuring the integrity of financial information. It explains that internal controls are designed to prevent and detect errors and fraud, thereby safeguarding the organization's assets and ensuring the reliability of its financial data. The text notes that effective internal controls are a key component of a strong corporate governance framework and are critical for maintaining the trust of investors and other stakeholders.

3. The third part of the document addresses the challenges associated with implementing and maintaining robust internal control systems. It identifies common obstacles such as lack of resources, insufficient training, and resistance to change, and offers practical suggestions for overcoming these challenges. The text stresses that a successful internal control system requires ongoing monitoring, evaluation, and improvement to adapt to the changing needs of the organization and the external environment.

4. The fourth part of the document discusses the importance of communication and collaboration in the implementation of internal controls. It emphasizes that all employees, regardless of their position, have a role to play in ensuring the effectiveness of the control system. The text highlights that clear communication and a strong culture of integrity are essential for creating an environment where internal controls are not only understood but also embraced and followed.

5. The fifth part of the document provides a summary of the key points discussed and offers concluding thoughts on the overall importance of internal controls. It reiterates that internal controls are not just a set of rules and procedures, but a fundamental part of an organization's identity and its commitment to ethical and responsible business practices. The text concludes by encouraging organizations to continue to refine and strengthen their internal control systems to ensure long-term success and sustainability.

6. The sixth part of the document provides a detailed overview of the various components of an internal control system. It covers areas such as risk assessment, control activities, information and communication, and monitoring. The text explains how these components work together to form a comprehensive and integrated system that addresses the organization's specific risks and objectives. It also discusses the importance of documenting the control system and ensuring that it is regularly updated to reflect changes in the organization's operations and the external environment.

7. The seventh part of the document discusses the role of the board of directors and senior management in the implementation of internal controls. It emphasizes that the board and management are responsible for setting the tone at the top and ensuring that the organization has a strong and effective internal control system. The text highlights that the board and management should provide clear guidance, resources, and support to the internal control function, and should regularly review and report on the system's performance to the stakeholders.

8. The eighth part of the document provides a detailed overview of the various types of internal controls that can be implemented. It discusses control activities such as segregation of duties, authorization, and reconciliation, and explains how these activities can be designed and implemented to effectively address the organization's risks. The text also discusses the importance of using a risk-based approach to identify and assess the most significant risks and to design controls that are tailored to those risks.

9. The ninth part of the document discusses the importance of testing and evaluating the internal control system. It explains that testing is a critical part of the internal control process, as it allows the organization to verify that the controls are operating as intended and to identify any weaknesses or deficiencies. The text highlights that testing should be conducted regularly and should cover all significant areas of the control system. It also discusses the importance of documenting the results of the testing and taking appropriate corrective actions to address any identified issues.

interactive.¹⁰⁴ Interactivity can therefore be thought of as a relative attribute of the communication process rather than an absolute one.

At the same time it is also an attribute of the technology. In the schemata developed by Gayeski and Williams even traditional linear media are shown as having some rudimentary interactivity. This is accomplished through direct address and the ability to pause for a response.¹⁰⁵ Interactivity between users of communications systems can be anything from so-called digital response (yes/no or multiple choice) through completely interactive, which is to say including the indications of tone, inflection, volume, and the non-verbal cues present in real-time unmediated face-to-face communication.

In the case of cable television there is a wide variation among applications of the concept of interactivity. In general, interactive cable has meant digital response, although higher levels of interactivity are possible with more complex and expensive equipment. Cable's experience as an interactive medium, however, never really advanced beyond the rudimentary level despite the acknowledgement that this was the key technical characteristic that defined the medium. That which has been written about cable-based interactivity reflects cable's limited experience with interactivity. Works on interactivity may be classified as being evaluations of the effects of interactive cable, policy studies, or technological primers.

The foremost evaluation of audience effects was a Spring 1978 issue of Journal of Communications that included several articles on interactive cable, most of which were assessments of the value of interactive cable as an

¹⁰⁴ Ibid, p. 4.

¹⁰⁵ "Levels of Interactivity," OmniCom Associates 1984.

1. The first step in the process of identifying a problem is to recognize that a problem exists. This often involves gathering information and observing the situation.

2. Once a problem is identified, the next step is to define the problem clearly. This involves identifying the specific aspects of the problem that need to be addressed.

3. After defining the problem, the next step is to generate possible solutions. This often involves brainstorming and considering different perspectives.

4. Once possible solutions are generated, the next step is to evaluate them. This involves comparing the solutions against the problem and considering their feasibility and potential consequences.

5. After evaluating the solutions, the next step is to select the best solution. This often involves weighing the pros and cons of each option.

6. Once a solution is selected, the next step is to implement it. This involves putting the solution into action and monitoring its progress.

7. Finally, the last step in the process is to evaluate the results. This involves assessing whether the solution has effectively solved the problem and whether any adjustments need to be made.

8. The process of identifying a problem and finding a solution is often iterative, meaning that it may involve going back and forth between steps as more information is gathered and solutions are refined.

9. It is important to remain open-minded and flexible throughout the process, as new information and perspectives may emerge that change the way the problem is viewed.

10. Finally, it is important to communicate the results of the process to others who may be affected by the solution, as this can help to ensure that the solution is effective and sustainable.

11. The process of identifying a problem and finding a solution is a key skill in many fields, and it is one that can be developed and improved over time.

12. By following these steps, individuals can effectively identify and solve problems, leading to more successful outcomes in both personal and professional life.

13. The process of identifying a problem and finding a solution is a complex one, but it is one that is essential for success in many areas of life.

14. By taking the time to carefully identify and solve problems, individuals can avoid many of the pitfalls and challenges that often accompany a lack of clear direction and planning.

15. In conclusion, the process of identifying a problem and finding a solution is a critical skill that can be developed and improved over time, leading to more successful outcomes in many areas of life.

educational medium.¹⁰⁶ This had been a key component of the NSF-funded cable studies in the early 1970s. Peg Kay's "Policy Issues in Interactive Cable Television," which closes out the series of reports, is an attempt to synthesize what was learned. She notes that the debate on privacy safeguards has yet to result in any specific rules or regulations, that the NSF carefully avoided anything having to do with public opinion polling, and that cable's less than universal distribution meant that the "information gap" between rich and poor was likely to worsen if cable were used as a means of mass public education. Finally, she notes that even after the FCC's effective moratorium on new cable system construction in the top 100 markets was lifted in 1972, "virtually nothing happened," leading her to conclude that nothing much was going to happen soon on interactive cable.

Loy Singleton's Telecommunications in the Information Age,¹⁰⁷ is an example of a primer on interactive cable. He treats two-way cable in a chapter separate from the chapters on cable system operations and programming and interprets interactivity as the "secret weapon" the cable industry requires to differentiate it from other video delivery media. He acknowledges the technical problems with early two-way cable experiments but notes that the birth of pay-per-view (PPV) programming in the late 1970s gave a new boost to operator interest in bi-directional cable. And he repeats the oft-stated observation that franchising competition also promoted two-way service development. In the late 1970s,

new cable franchises and old ones being rebuilt began to feel

¹⁰⁶ Volume 28, Number 2. One article is concerned with the delivery of social services generally, and the others are about the Reading, PA experiment (three articles), Spartanburg, SC (one), and Rockford, IL (two).

¹⁰⁷ Cambridge, MA: Ballinger Publishing, 1983.

The first step in the process is to identify the problem or goal that needs to be addressed. This involves a clear understanding of the current situation and the desired outcome.

Once the problem is identified, the next step is to gather relevant information and data. This can be done through research, interviews, or direct observation.

After gathering information, the next step is to analyze the data and identify the root cause of the problem. This involves looking for patterns and trends in the data.

Once the root cause is identified, the next step is to develop a plan of action. This plan should outline the steps that need to be taken to address the problem.

The final step in the process is to implement the plan and monitor the results. This involves putting the plan into action and tracking progress to ensure that the goal is being achieved.

In conclusion, the process of problem-solving involves a series of steps that lead from identifying the problem to implementing a solution. Each step is crucial to the overall success of the process.

It is important to note that the process of problem-solving is not always linear. Sometimes, the steps may overlap or be repeated as more information is gathered.

Overall, the process of problem-solving is a critical skill that is used in many different contexts. It is a process that requires careful thought and attention to detail.

By following these steps, you can effectively address any problem that you may encounter. The key is to stay focused and persistent throughout the process.

Remember, the goal is to find a solution that works for everyone involved. This may require some trial and error, but it is worth the effort.

Finally, it is important to take time to reflect on the process and the results. This will help you learn from your experience and improve your problem-solving skills for the future.

Thank you for reading this article. I hope it has provided you with some useful insights into the process of problem-solving.

If you have any questions or feedback, please feel free to contact me. I would be happy to hear from you.

competitive pressures to attempt to offer every sort of service that was technologically feasible.¹⁰⁸

There are several problem, as he notes, with the commercial introduction of services based on two-way cable. The primary revenue generator among all the services associated with interactivity is pay-per-view programming, which provides both opportunities and risks for the cable operator.

For PPV to become more attractive to cable operators, the industry must overcome a sort of "catch-22" situation. Most operators cannot make enough profit on PPV because of the expense involved in PPV exhibitions on one-way systems. So PPV alone will not finance the cable industry's conversion to two-way technology. Without the two-way technology, most operators will not participate extensively in PPV, and so forth.¹⁰⁹

The other key obstacle to using PPV revenues to justify the investment in bi-directional cable plant is that it is not absolutely necessary for PPV. Operators of addressable cable systems (in which the services of individual subscribing households may be changed without a service call) can and do use the telephone network as a means of ordering pay-per-view programs. This can be done with a voice telephone call or with a telephone network return path from the cable converter that literally dials the phone and places the order via a data connection. Or, as Singleton notes, PPV can be implemented with a device that can be mailed out to subscribers called a notch filter that the customer installs.

Yet, as he notes, cable and interactivity are linked in public discourse, to the industry's benefit.

Perhaps more than any other aspect of the cable industry, the potential of two-way services has caught the imagination of the

¹⁰⁸ p. 38.

¹⁰⁹ p. 44.

Mathematical Induction

Mathematical induction is a method for proving that a statement is true for all natural numbers. It consists of two main steps: the base case and the inductive step.

Base Case: Prove that the statement is true for the smallest natural number, usually 1.

Inductive Step: Assume the statement is true for a natural number n . Prove that the statement is true for $n+1$.

If both steps are completed, the statement is true for all natural numbers.

Example 1: Sum of Natural Numbers

Let $P(n)$ be the statement: $1 + 2 + \dots + n = \frac{n(n+1)}{2}$.

Base Case: For $n=1$, $1 = \frac{1(1+1)}{2} = 1$. The statement is true.

Inductive Step: Assume $P(n)$ is true. Then $1 + 2 + \dots + n = \frac{n(n+1)}{2}$. We need to show $P(n+1)$ is true, i.e., $1 + 2 + \dots + (n+1) = \frac{(n+1)(n+2)}{2}$.

$$1 + 2 + \dots + n + (n+1) = \frac{n(n+1)}{2} + (n+1)$$
$$= \frac{n(n+1) + 2(n+1)}{2} = \frac{(n+1)(n+2)}{2}$$

Therefore, $P(n+1)$ is true. By the principle of mathematical induction, $P(n)$ is true for all natural numbers n .

Mathematical induction is a powerful tool for proving statements about natural numbers. It is often used in number theory, algebra, and combinatorics.

public.¹¹⁰

Singleton cites the high profile of Warner's QUBE system in particular as having put pressure on other operators to offer similar services. However, he evaluates only PPV and home security services as being "the most promising candidates for survival" because only they hold promise for immediately increasing revenues to the cable operator.¹¹¹ Although he acknowledges that other services could be developed with two-way cable they are distinguished from PPV and security applications because they presumably would lack the immediate direct financial return.

Two-way and interactive services potentially can provide many socially valuable services to the community. Interactive cable can be used for educational purposes by local school systems, for example. All citizens with television sets could be given access to city government and a voice through instant polling of entire communities. All the sick and inform could receive emergency assistance devices in their homes. The possibilities are too numerous to detail.

Does two-way cable's potential for contributing to social and health care problems faced by most communities place an obligation on cities, cable operators, or citizens to see to it that some channels, perhaps some revenues, are set aside for those purposes? Do all citizens have the right to share in the technological benefits that now can be enjoyed by those who can afford them?¹¹²

He concludes that these questions will be answered as two way services become part of all cable systems. However, that path to responding to these questions, as will be discussed below, was closed before answers could be found.

Finally, there are several policy studies on interactive cable. Lee Becker's evaluative research on cable is historical and focused on inter-

¹¹⁰ p. 46.

¹¹¹ p. 47.

¹¹² p. 48.

1. The first step in the process of identifying a problem is to define the problem clearly. This involves identifying the symptoms and the underlying causes of the problem.

2. The second step is to gather information about the problem. This involves researching the problem and identifying the resources available to solve it.

3. The third step is to generate possible solutions. This involves brainstorming ideas and identifying the most promising ones.

4. The fourth step is to evaluate the solutions. This involves comparing the solutions and identifying the most effective one.

5. The fifth step is to implement the solution. This involves putting the solution into practice and monitoring its progress.

6. The sixth step is to evaluate the results. This involves assessing the effectiveness of the solution and identifying any areas for improvement.

7. The seventh step is to communicate the results. This involves sharing the results with others and providing feedback.

8. The eighth step is to reflect on the process. This involves thinking about what was learned and how it can be applied in the future.

9. The ninth step is to document the process. This involves writing a report or a journal entry about the problem-solving process.

10. The tenth step is to review the process. This involves looking back at the process and identifying any areas for improvement.

11. The eleventh step is to share the results. This involves presenting the results to others and providing feedback.

12. The twelfth step is to reflect on the process. This involves thinking about what was learned and how it can be applied in the future.

13. The thirteenth step is to document the process. This involves writing a report or a journal entry about the problem-solving process.

14. The fourteenth step is to review the process. This involves looking back at the process and identifying any areas for improvement.

activity.¹¹³ He asks both what is possible with the technology and what is likely given the regulatory structure within which the industry operates. His analysis is conducted both on the level of individual subscribers as well as institutional actors.

Becker first reviews the experiments in interactive cable supported by the National Science Foundation in the 1970s and concludes that they "produced strikingly little evidence of the superiority of interactive cable in comparison with other technologies for the communication of information."¹¹⁴ Then he explores the research conducted on subscribers to Warner Communication's much-studied QUBE interactive cable system in Columbus Ohio. He observes that they are not significantly different than subscribers to any other cable systems and that "interactivity has probably never been very important to QUBE's subscribers." While the QUBE and NSF-sponsored systems were similar technologically, Becker concludes that market forces are unlikely to bring about the kinds of social and educationally-oriented services cable was used for in the publically-supported tests. "[I]f market forces dictate," he concludes, "...interactivity will become a tool of promotion and programming rather than of community advancement...what interactive cable can do and what it will do in the market environment are two quite distinct things."¹¹⁵

The history of cable-based interactivity has also been explored by Robert Pepper, the National Telecommunication and Information Agency's

¹¹³ "A Decade of Research on Interactive Cable," in Dutton et. al. (eds) Wired Cities (Boston: G.K. Hall, 1987), pp. 102-123.

¹¹⁴ Ibid, p. 112.

¹¹⁵ Ibid, p. 120.

The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for ensuring transparency and accountability in financial operations. This section also outlines the various methods and tools used to collect and analyze data, highlighting the need for consistency and precision in data collection.

The second part of the document focuses on the analysis of the collected data. It describes the various statistical techniques and models used to interpret the data, including regression analysis, time series analysis, and hypothesis testing. This section also discusses the challenges associated with data analysis, such as missing data and outliers, and provides strategies to address these issues.

The third part of the document discusses the application of the analysis results. It describes how the findings are used to inform decision-making and to identify areas for improvement. This section also outlines the various ways in which the results are communicated to stakeholders, including through reports, presentations, and dashboards.

The fourth part of the document discusses the future of data analysis. It describes the various emerging technologies and trends in the field, such as artificial intelligence, machine learning, and big data. This section also outlines the challenges and opportunities associated with these technologies and provides strategies to stay ahead of the curve.

The fifth part of the document discusses the importance of data security and privacy. It describes the various risks associated with data breaches and provides strategies to mitigate these risks. This section also outlines the various regulations and standards that govern data security and privacy, and provides strategies to ensure compliance.

The sixth part of the document discusses the importance of data ethics. It describes the various ethical considerations associated with data analysis, such as bias, discrimination, and privacy. This section also outlines the various frameworks and guidelines that govern data ethics, and provides strategies to ensure ethical data analysis.

The seventh part of the document discusses the importance of data literacy. It describes the various skills and knowledge required for data literacy, and provides strategies to develop these skills. This section also outlines the various resources and tools available to support data literacy, and provides strategies to ensure that all stakeholders have access to these resources.

The eighth part of the document discusses the importance of data governance. It describes the various processes and policies required for data governance, and provides strategies to implement these processes and policies. This section also outlines the various roles and responsibilities associated with data governance, and provides strategies to ensure that all stakeholders are held accountable.

The ninth part of the document discusses the importance of data innovation. It describes the various ways in which data can be used to drive innovation, and provides strategies to foster a culture of data innovation. This section also outlines the various challenges and opportunities associated with data innovation, and provides strategies to overcome these challenges.

The tenth part of the document discusses the importance of data collaboration. It describes the various ways in which data can be shared and used collaboratively, and provides strategies to foster a culture of data collaboration. This section also outlines the various challenges and opportunities associated with data collaboration, and provides strategies to overcome these challenges.

In conclusion, this document has provided a comprehensive overview of the various aspects of data analysis, from data collection to data governance. It has highlighted the importance of maintaining accurate records, the need for consistency and precision in data collection, and the various statistical techniques and models used to analyze data. It has also discussed the application of the analysis results, the future of data analysis, the importance of data security and privacy, data ethics, data literacy, data governance, and data innovation and collaboration.

The document has provided a clear and concise overview of the various aspects of data analysis, and has provided strategies to address the various challenges and opportunities associated with data analysis. It is hoped that this document will be a valuable resource for anyone interested in data analysis.

Director of Domestic Policies.¹¹⁶ In a 1984 paper he recounts the studies and articles in the late 1960s and early 1970s that had promoted a role for cable beyond simply video carriage and identifies the promulgation of the 1972 FCC rules on cable as the point at which the agency "embraced this vision."¹¹⁷ Yet a dozen years later Pepper admits that cable has failed to develop in this direction and seeks to determine why.

He identifies the resistance of industry decision-makers as the key reason cable did not develop interactive services.

The cable industry has not developed the interactive broadband networks envisioned by the technologists a decade ago in part because significant segments of the industry did not want to develop beyond being a delivery service for one-way video entertainment services. Indeed, industry opposition led to the elimination of such obligations.¹¹⁸

He then recounts the industry's successful challenge of the 1972 rules. After looking at potential competitors to cable, he identifies the telephone industry as the most likely actor to develop interactive services. As he explains, the former Bell companies are precluded by the 1982 consent decree from offering electronic publishing services until 1989 at the earliest. So the opportunity for the development of interactive services, while it rested with cable in the 1980s and was unseized, will move to the telephone industry in the 1990s.

Pepper shows that videotex services did not develop in the US in the

¹¹⁶ "Telecommunications and Telematics Policy in the United States: Cable Television and the Realities of Competition," presented at the Forum International Sur Les Politiques Publiques des Nouvelles Technologies de la Communication, organized by Le Centre d'Etude de la Vie Politique Francaise Contemporaine, Fondation Nationale des Sciences Politiques (Paris, May 1984).

¹¹⁷ p. 1.

¹¹⁸ p. 4.

...the ... of ...
...the ... of ...
...the ... of ...
...the ... of ...

...the ... of ...
...the ... of ...
...the ... of ...
...the ... of ...

...the ... of ...
...the ... of ...
...the ... of ...
...the ... of ...

...the ... of ...
...the ... of ...
...the ... of ...
...the ... of ...

...the ... of ...
...the ... of ...
...the ... of ...
...the ... of ...

1980s in part due to this regulatory arrangement. He also quotes John Malone of TCI as stating the industry's perspective on the cost/benefit ratio provided by interactive services:

Cable never was, should not have been, and never will be...an efficient way to return signals from the home...The technology is poorly equipped, and to make the technology work overburdens the facility with so much, not only capital, but operating expenses on a continuing basis as to render it very, very unacceptable.¹¹⁹

Operators are also hesitant to put serious effort into two-way cable out of doubts about demand for two-way services and fear of state regulators, according to Pepper. He decides that in the international context each nation must decide whether or not to follow the American model of development. "The answers," he concludes, "will not be determined by technology, but rather by political decisions."¹²⁰

In conclusion, cable's involvement with interactivity has meant some kind of digital response mechanism which, although relatively inexpensive to implement, severely limited its utility to subscribers, as detailed below.

3. Teledemocracy

Assumptions on the relationship between communications technologies and forms of political participation have underlay the design of political institutions throughout history. The limitations the dominant media of communication placed on the design of public institutions can be seen in everything from the Greek lyceum's reliance upon direct, face-to-face interaction through the Roman Empire's creation of roads and a postal service to

¹¹⁹ Pepper, p. 19. Malone is quoted from M. Hardart, "Empire Building, Brick by Brick," CableVision February 13, 1984, p. 36.

¹²⁰ p. 26.

1. Identify the main idea of the passage.

2. Summarize the passage in your own words.

3. Identify the author's purpose in writing the passage.

4. Identify the author's tone in writing the passage.

5. Identify the author's style in writing the passage.

6. Identify the author's audience in writing the passage.

7. Identify the author's point of view in writing the passage.

8. Identify the author's bias in writing the passage.

9. Identify the author's main argument in writing the passage.

10. Identify the author's supporting arguments in writing the passage.

11. Identify the author's conclusion in writing the passage.

12. Identify the author's main message in writing the passage.

13. Identify the author's main theme in writing the passage.

14. Identify the author's main topic in writing the passage.

interconnect its dispersed holdings, through the creation of an American democracy built around units in which citizens could travel in a day or less to the seat of government. The framers of the US Constitution debated both the questions of how much participation was desirable as well as how much was physically possible in such a large country in which it took weeks or months for news to travel to its furthest reaches. Marx and Engle's Communist Manifesto placed great faith in the changes in consciousness that would spring from the new forms of association and means of communication made possible by the factory system.

The development of electronic media in the twentieth century has refueled this debate, which has been conducted in both the fields of communication and political science. In communication research the Toronto School of Harold Innis and his student Marshall McLuhan can be credited with emphasizing the importance of the channel of communication as an variable in the communications process equal in importance with source, message, receiver, and feedback. "Political communication" has become a growing subfield.

In political science three changes are coterminous with the growth of modern media. The entire discipline became increasingly communication-oriented as political scientists sought an explanation for the devolution of both parties and voter participation. These developments were happening at the same time the electronic broadcast media and sophisticated polling techniques became dominant forms of political communication and feedback, leading to a good deal of speculation on their precise relationship. In addition, a subset of literature developed dealing specifically with the development of communications technology and the evolution of forms of political participation that herein will be referred to as teledemocracy.

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

Political reformers, excited by this work and by the possibilities they saw in changing the media environment, sought to reform the communications process as a way of resuscitating political participation. Finally, students and practitioners of urban planning sought to add communications-related functions to their area of study and prescription.

Much of this debate seized upon the cable industry. It was seen as a young and dynamic medium subject to regulatory control and hence to the influence of reformers seeking to renew the spirit of democratic participation. With the most articulate and powerful social critics seeking more "participatory democracy" and the government itself committed to "maximum feasible participation" in its new anti-poverty programs, cable's arrival on the public agenda as a regulatory issue in the late 1960s virtually guaranteed this.¹²¹ The "blue sky" cable literature that forecast a thrilling new role for cable as an urban communications medium will be considered in detail in Chapter IV below. In this section the foundations of the study of urban communications systems and the literature on technologically-enhanced forms of political participation will be explored as closely related topics.

Computer industry professionals had speculated on the potential relationship between cable and "information utilities" or mass scale interactive computing since the early 1960s,¹²² but the first social critics to identify cable as a means of developing new forms of political participation arrived on

¹²¹ The first phrase is from the Students for a Democratic Society's manifesto The Port Huron Statement and the second is from the Johnson administration's Model Cities program. Rules for incorporating public input into governmental decisions were also an important part of the environmental legislation such as the National Environmental Policy Act of 1969.

¹²² The first use of the term "information utility" was Martin Greenberger, "The Computers of Tomorrow," Atlantic Monthly July 1964.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both primary and secondary data collection techniques. The primary data was gathered through direct observation and interviews, while secondary data was obtained from existing reports and databases.

The third section provides a detailed description of the data analysis process. It explains how the collected data was organized, cleaned, and then analyzed using statistical software. The results of the analysis are presented in a clear and concise manner, highlighting the key findings and trends.

Finally, the document concludes with a summary of the overall findings and their implications. It discusses the challenges faced during the research process and offers suggestions for future studies. The author expresses confidence in the reliability of the data and the validity of the conclusions drawn.

In conclusion, this study has provided valuable insights into the research topic. The data collected and analyzed is reliable and supports the conclusions drawn. The findings have important implications for the field and offer a foundation for further research.

the scene in 1970. Hans Magnus Enzensberger's New Left Review article criticized the current communications regime because it

allows no reciprocal action between transmitter and receiver; technically speaking it reduces feedback to the lowest point compatible with the system.¹²³

Although not anticipating emancipation by "technological hardware," the solution, as he saw it, had a great deal to do with changes in communications technology.

Network-like communications models built on the principal of reversability of circuits might give indications of how to overcome this situation.¹²⁴

Specifically, he proposed "a video network of politically active groups."

Robert P. Wolff's In Defense of Anarchism carried the argument further.¹²⁵ To Wolff,

the obstacles to direct democracy are merely technical, and we may therefore suppose that in this day of planned technological progress it is possible to solve them.¹²⁶

He proposed that

In each dwelling, a device would be attached to the television set which would electronically record votes and transmit them to a computer in Washington.¹²⁷

A federal subsidy would provide televisions for those without them and each evening instead of showing the news all networks would broadcast a debate on the issue on the agenda. Following a week of discussion and debate there

¹²³ "Constituents of a Theory of the Media," Volume 64 (November-December 1970), p. 13-36.

¹²⁴ p. 23.

¹²⁵ New York: Harper and Row, 1970.

¹²⁶ p. 34.

¹²⁷ p. 34-5.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the use of advanced software and manual processes to ensure that all relevant information is captured and processed correctly.

3. The third part of the document describes the procedures for reviewing and verifying the data. It details the steps taken to ensure that the information is accurate, complete, and consistent with the organization's policies and procedures.

4. The fourth part of the document discusses the reporting and communication of the findings. It explains how the results of the data analysis are presented to the relevant stakeholders and how they are used to inform decision-making and strategic planning.

5. The fifth part of the document provides a summary of the key findings and conclusions. It highlights the main areas of concern and the recommendations for improvement based on the data analysis.

6. The sixth part of the document discusses the ongoing monitoring and evaluation of the organization's performance. It explains how the data is used to track progress and identify areas for further improvement.

7. The seventh part of the document provides a detailed description of the data collection process. It includes information about the sources of data, the methods used to collect it, and the steps taken to ensure its accuracy and reliability.

8. The eighth part of the document discusses the challenges and limitations of the data analysis process. It identifies the factors that can affect the quality and reliability of the data and the steps taken to address these issues.

9. The ninth part of the document provides a detailed description of the data analysis process. It includes information about the software and tools used, the steps taken to analyze the data, and the results of the analysis.

10. The tenth part of the document discusses the implications of the data analysis for the organization's future. It explains how the findings can be used to inform strategic planning and to improve the organization's overall performance.

11. The eleventh part of the document provides a detailed description of the data collection process. It includes information about the sources of data, the methods used to collect it, and the steps taken to ensure its accuracy and reliability.

12. The twelfth part of the document discusses the challenges and limitations of the data analysis process. It identifies the factors that can affect the quality and reliability of the data and the steps taken to address these issues.

would be an instant vote on these measures.

Wolff argues, as do all radical democrats, that the demand for participation is itself empowering and leads to a heightened sense of personal efficacy and involvement on the part of individuals.

The initial response to a system of instant direct democracy would be chaotic, to be sure. But very quickly, men would learn--what is now manifestly not true--that their votes made a difference in the world, an immediate, visible difference. There is nothing which brings on a sense of responsibility as fast as that awareness.¹²⁸

As a result, the poor and powerless would have as much power as the rich and influential and "social justice would flourish as it has never flourished before."

Instead, what flourished was the dream of technologically-enhanced participation and the study of urban communications systems. For example, Columbia University's Technology and Society Program launched one of the early experiments with "participatory technology." Their proposed "mass dialogue and response system" was called a "Multiple Input Network for Evaluating Reactions, Votes and Attitudes," or MINERVA (also the name of the Roman goddess of political wisdom.)¹²⁹ The design of the MINERVA group was based on two-way cable systems and response pads in each subscriber's home. A society-wide broadcast would begin the discussion of a public issue, after which progressively larger groups of people would use the technology to debate and evaluate proposals and then vote on them. Only a few people, of course, would be able to address the audience, but each person so selected would have the complete

¹²⁸ p. 36.

¹²⁹ Amitai Etzioni, "MINERVA: A Study in Participatory Technology," Working Paper I (February 1972) p. 6.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to support effective decision-making.

3. The third part of the document focuses on the role of technology in data management and analysis. It discusses how modern software solutions can streamline data collection, storage, and reporting, thereby improving efficiency and accuracy.

4. The fourth part of the document addresses the challenges associated with data management, such as data quality, security, and privacy. It provides strategies to mitigate these risks and ensure that data is used responsibly and ethically.

5. The fifth part of the document concludes by summarizing the key findings and recommendations. It stresses the importance of ongoing monitoring and evaluation to ensure that data management practices remain effective and up-to-date.

6. The sixth part of the document provides a detailed overview of the data collection process, including the identification of data sources, the design of data collection instruments, and the implementation of data collection procedures.

7. The seventh part of the document discusses the various methods used for data analysis, such as descriptive statistics, inferential statistics, and qualitative analysis. It explains how these methods are used to interpret the data and draw meaningful conclusions.

8. The eighth part of the document focuses on the presentation of data, including the use of tables, charts, and graphs. It provides guidelines for creating clear and concise reports that effectively communicate the results of the data analysis.

9. The ninth part of the document discusses the importance of data security and privacy. It outlines the measures that should be taken to protect sensitive data from unauthorized access and ensure compliance with relevant regulations.

10. The tenth part of the document provides a final summary and concludes the report. It reiterates the key findings and emphasizes the need for continued attention to data management practices to ensure the organization's long-term success.

11. The eleventh part of the document includes a list of references and a bibliography. It provides a comprehensive list of the sources used in the research and analysis, ensuring that the information is credible and verifiable.

12. The twelfth part of the document is a concluding statement that summarizes the overall purpose and findings of the report. It expresses the hope that the information provided will be useful and informative to the intended audience.

attention of all audience members. The possibilities for switched audio and video participation were also considered but cable was selected for its high bandwidth, bi-directionality, and ability to carry messages in multiple media. The MINERVA team also proposed the combination of radio or broadcast TV with telephone response mechanisms for larger communities.

The MINERVA group's work, supported by the National Science Foundation, had a serious impact upon the development of cable as an interactive medium. It dismissed the lack of demand for two-way cable as a result of lack of consumer awareness and called for the development and study of actual operating systems in which the possibilities for interactive political discussion could be explored.

It is of course clear that the best way for the public to be exposed to the advantages of such a development is through familiarity, either directly or indirectly, with the benefits that accrue to real people living in actual communities that have been wired to provide these services.¹³⁰

Taking that advice, the NSF began a series of experiments involving actual services to test and develop consumer interest in interactive services for political communication and other purposes, which will be explored in detail below.¹³¹

At the same time, works began to appear that explored "the new field of urban communications," as George Gerbner, Larry Gross, and William Melody's Communications Technology and Social Policy: Understanding the New 'Cultural

¹³⁰ Ted Werntz, "A Preliminary Review of CATV as a Two-Way System," Working Paper V (February 1972), p. 3.

¹³¹ Etzioni and other members of the project team also published "Participating Technology: the MINERVA Communications Tree," in Journal of Communications Volume 25 (Spring 1975), pp. 64-74.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations. The records should be kept up-to-date and accessible to all relevant parties.

2. The second part of the document outlines the various methods and tools used for data collection and analysis. It highlights the need for a systematic approach to gathering information and the importance of using reliable sources. The document also discusses the challenges associated with data collection and the strategies used to overcome them.

3. The third part of the document focuses on the analysis and interpretation of the collected data. It describes the various statistical and analytical techniques used to identify trends and patterns in the data. The document also discusses the importance of contextualizing the data and the need for a clear understanding of the underlying factors.

4. The fourth part of the document discusses the implications of the findings and the need for further research. It highlights the importance of sharing the results of the study and the need for ongoing monitoring and evaluation. The document also discusses the potential for future research and the need for a collaborative approach to addressing the challenges identified in the study.

5. The fifth part of the document discusses the conclusions and recommendations of the study. It highlights the key findings and the implications for practice. The document also discusses the need for further research and the need for a collaborative approach to addressing the challenges identified in the study.

Revolution' put it.¹³² Much of this literature centered upon the trade-off between transportation, an area subject without question to urban planning, and communication, a potentially new area of responsibility. Part of the Gerbner et al. book touches upon two-way cable, however, and speculated about its place in the cities of the future. They place the establishment of the "wired city" as "early as the end of this decade," but acknowledge that it will neither be an unmitigated disaster nor the savior of the urban community. "The direction in which cable goes," they write, "is in the hands of state and local governments in terms of the regulations they develop as franchise conditions."¹³³

Mark Hinshaw's essay is indicative of how the planning literature of this era treats two-way cable. He sketches two scenarios which more or less correspond to the Orwellian nightmare of total control and the socialist vision of the liberation of individual creative energies. In the first, interactive media made available to corporate and governmental planners the data necessary to shape attitudes and behavior. In the second the growth of two-way cable "influenced the development of more fluid, diverse, and participative social environments," including the replacement of the system of representation "with more direct and cooperative decision-making mechanisms."¹³⁴

By the middle of the decade some serious experiments and proposals for accomplishing this goal were presented. Tom Johnson, Clark McCauley, and Omar

¹³² New York: Wiley, 1973. See also Arnold Wise, "The Impact of Electronic Communications on Urban Form," Ekistics (July 1971).

¹³³ p. 289, 290.

¹³⁴ "Wiring Megalopolis: Two Scenarios," p. 315.

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

...the ... of ...

Rood published an updated version of the dream contained in the Woolf proposal that also called for a national plebiscite.¹³⁵ The technological foundation of their proposal, however, was government-issued voting boxes that citizens plug into the telephone network rather than anything cable-based.

However, Kenneth Laudon, who had been part of the MINERVA group, published Communications Technology and Democratic Participation in 1977 which did address the development of the cable industry.¹³⁶ Writing at the same time the microcomputer industry was beginning he called the possibility of widespread access to computers "a fantasy of flabby futurism," that had to be considered "extremely unlikely." Thus, he conducted an experiment with the application of telephone conferencing to the internal decision-making of the New Jersey League of Women Voters. First, he concluded that Michel's iron law of oligarchy is not challenged by the growth of a new medium:

The appearance of a new political resource in the form of citizen technology--regardless how it is organized or what technology is used--is likely to be utilized by the most politically skilled and organized groups in the population.¹³⁷

Worse, he predicted that interactive cable would be represented to mass audiences as a means of serious communication of political preferences though not in reality applied to that end.

As we were treated to headlines in the early 1960s that read COMPUTERS JOIN WAR ON CRIME, so in the early 1980s we will learn that CABLE TV AIDS DEMOCRACY, and so during the half-time of the Superbowl an important national issue will be discussed by twelve experts, followed by a vote of the national audience, the results

¹³⁵ "The Next Democracy: Technology in the Service of Self-Government," World Future Society Bulletin (November-December 1977), pp. 1-6. Also The Next Democracy: Public Participation and the Government of the United States, unpublished manuscript (1975).

¹³⁶ New York: Praeger, 1977.

¹³⁷ p. 110.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability, particularly in the context of public administration and financial management. The text highlights that proper record-keeping allows for easier auditing and helps in identifying any irregularities or discrepancies early on.

2. The second part of the document focuses on the role of the management team in setting clear objectives and expectations. It states that effective leadership is essential for the success of any organization, and that managers must communicate their vision and goals clearly to their subordinates. This section also discusses the importance of regular communication and feedback loops to ensure that everyone is aligned and working towards the same objectives.

3. The third part of the document addresses the issue of resource allocation and budgeting. It explains that organizations must carefully plan their resources to ensure that they are used efficiently and effectively. This involves setting a realistic budget and prioritizing spending based on the organization's needs and goals. The text also mentions the importance of monitoring and controlling costs to avoid overspending and ensure that the organization stays within its budget.

4. The fourth part of the document discusses the importance of employee development and training. It notes that organizations must invest in their human capital to ensure that they have the skills and knowledge necessary to perform their jobs effectively. This can be achieved through various methods, including formal training programs, on-the-job training, and mentoring. The text also emphasizes the importance of providing ongoing support and encouragement to employees to help them reach their full potential.

5. The fifth part of the document concludes by summarizing the key points discussed and reiterating the importance of each of these areas for the overall success of the organization. It encourages management to take a holistic approach to their responsibilities, ensuring that all these aspects are given equal attention and resources.

6. The sixth part of the document provides a detailed overview of the organizational structure and the roles of various departments. It describes how the different departments are interconnected and how they contribute to the overall mission of the organization. This section also includes information about the reporting lines and the key responsibilities of each department head.

7. The seventh part of the document discusses the current state of the organization and the challenges it is facing. It provides a candid assessment of the strengths and weaknesses of the organization and identifies the key areas that need to be addressed. This section also outlines the strategies and initiatives that are being implemented to overcome these challenges and improve the organization's performance.

8. The eighth part of the document provides a detailed financial report, including a breakdown of the organization's income, expenses, and net profit. It also includes a comparison of the organization's financial performance against its budget and industry benchmarks. This section is intended to provide transparency and accountability to the stakeholders and to help them understand the financial health of the organization.

9. The ninth part of the document discusses the organization's future plans and goals. It outlines the key strategic initiatives that are being pursued and the timeline for their implementation. This section also includes information about the resources that will be required to achieve these goals and the expected outcomes.

10. The tenth part of the document concludes with a message of gratitude and appreciation to the staff and stakeholders for their support and contribution to the organization's success. It also expresses confidence in the organization's future and encourages everyone to continue working together to achieve the organization's vision.

11. The eleventh part of the document provides a detailed overview of the organization's compliance and risk management framework. It describes the various policies and procedures that are in place to ensure that the organization is operating in a lawful and ethical manner. This section also discusses the risks that the organization is facing and the measures that are being taken to mitigate these risks.

12. The twelfth part of the document discusses the organization's commitment to social responsibility and sustainability. It outlines the various initiatives and programs that are being implemented to promote environmental, social, and governance (ESG) practices. This section also includes information about the organization's progress in these areas and its future plans.

13. The thirteenth part of the document provides a detailed overview of the organization's human resources management practices. It describes the various processes and procedures that are in place for recruitment, selection, and development of employees. This section also discusses the organization's approach to performance management and employee engagement.

14. The fourteenth part of the document discusses the organization's information technology (IT) strategy and infrastructure. It outlines the various IT systems and applications that are being used to support the organization's operations and the measures that are being taken to ensure the security and integrity of the organization's data.

15. The fifteenth part of the document concludes with a final message and a call to action, encouraging everyone to continue working together to achieve the organization's vision and goals.

Prepared by: [Name]

of which will be sent to Congress and the president. Depending on the average distance between the television room and the refreshments, several million persons will punch questionnaires, call a station, or push a button on a little black box. To the unaware citizen this may seem at first glance a useful development. The growing recognition that the little black boxes are not connected to anything of importance, however, will only worsen and complicate the sense of alienation from U.S. institutions.¹³⁸

Clement Bezold's contribution to the consideration of new forms of political participation was the publication in 1978 of Anticipatory Democracy¹³⁹ which reviewed forty-four projects to develop regional and local participation around planning issues between 1965 and 1977. While these projects utilized standard broadcast media for their implementation, the popularity of these efforts to encourage greater participation, at least among politicians, also may be said to have heightened awareness that the media could do more than deliver information in one direction and that local governments could influence the way the media were applied in the public sphere.

Ted Becker's teledemocracy experiments in Hawaii (1978), New Zealand (1981), and Los Angeles (1982) combined new and old media.¹⁴⁰ Generally the response mechanism was coupons published in newspapers. Cable was used only as a broadcast medium, although Becker believed that cable was "ready to spread through the United States like wildfire," and that it would bring with it mass interactive media that people would use to demand greater participa-

¹³⁸ p. 116.

¹³⁹ New York: Random House.

¹⁴⁰ "Teledemocracy: Bringing Power Back to the People," The Futurist December 1981, pp. 6-9; with Christa Slaton, "Hawaii Televote: Measuring Public Opinion on Complex Issues," Political Science Volume 33, Number 1 (July 1981), pp. 52-65.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud. The document outlines the various types of records that should be maintained, including receipts, invoices, and bank statements. It also discusses the importance of regular audits and the role of internal controls in ensuring the accuracy of the records.

The second part of the document focuses on the importance of transparency and accountability in financial reporting. It discusses the need for clear and concise reporting and the importance of providing timely information to stakeholders. The document also discusses the role of external auditors in providing an independent assessment of the financial statements and the importance of disclosing any potential conflicts of interest.

The third part of the document discusses the importance of risk management in financial reporting. It discusses the various types of risks that can arise in financial reporting, including credit risk, liquidity risk, and operational risk. The document also discusses the importance of identifying and measuring these risks and the role of risk management in minimizing the impact of these risks on the financial statements.

The fourth part of the document discusses the importance of ethical considerations in financial reporting. It discusses the various ethical issues that can arise in financial reporting, including the manipulation of financial statements and the use of aggressive accounting practices. The document also discusses the importance of establishing a strong ethical culture within the organization and the role of the board of directors in overseeing the ethical aspects of financial reporting.

The fifth part of the document discusses the importance of staying up-to-date on the latest developments in financial reporting. It discusses the various sources of information that can be used to stay up-to-date, including industry publications, regulatory updates, and professional development opportunities. The document also discusses the importance of ongoing education and training for financial reporting professionals.

The sixth part of the document discusses the importance of effective communication in financial reporting. It discusses the various communication channels that can be used to disseminate financial information, including annual reports, press releases, and investor presentations. The document also discusses the importance of using clear and concise language and the role of effective communication in building trust with stakeholders.

The seventh part of the document discusses the importance of maintaining a strong relationship with external stakeholders. It discusses the various types of stakeholders that can be affected by financial reporting, including investors, creditors, and the general public. The document also discusses the importance of engaging with these stakeholders and the role of effective communication in building a strong relationship.

tion in the decisions affecting their lives. "The forecast is nothing but bright for teledemocracy," he wrote in 1981, "thanks to modern science."¹⁴¹

The teledemocracy literature and urban planning profession's consideration of wired cities were at first boosted then dashed by the franchise wars of the late 1970s and early 1980s. The QUBE system developed by Warner became the center of attention. Both those who were urging cities to ask for more and plan for future growth as well as those who looked to interactive cable as a path for new forms of political participation focused on QUBE (discussed in detail below).

The International City Management Association, for example, brought out a text on Telecommunications for Local Government that urged municipal officials to "seize the initiative." Whether advanced telecommunications systems would bring good or ill was seen as "in the hands of local officials and the decisions those officials make today." The ICMA recognized that two-way capability was included in virtually all bids for cable franchises and urged officials to "stop thinking about 'television' systems and start thinking about cable 'communication' systems."¹⁴² The insistence of municipal officials on state-of-the-art cable systems was represented as being in the long-term best interest of the cable system operator in that "obsolete, limited channel, one-way cable systems" would be in danger of being killed off by satellite-delivered programming.¹⁴³

¹⁴¹ quotations from The Futurist (December 1981), p. 8.

¹⁴² (Washington, DC: ICMA, 1982), pp. ix, x, and 87.

¹⁴³ p. 168.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This not only helps in tracking expenses but also ensures that the company remains compliant with tax regulations. The text further explains that regular audits are essential to identify any discrepancies and prevent potential fraud.

In addition, the document highlights the role of technology in streamlining financial processes. Modern accounting software can automate many tasks, such as data entry and report generation, which significantly reduces the risk of human error. It also allows for real-time monitoring of financial health, enabling management to make informed decisions quickly. The text concludes this section by stating that investing in quality software is a cost-effective way to improve operational efficiency.

Furthermore, the document stresses the importance of clear communication between departments. Financial data often flows through various parts of the organization, and any miscommunication can lead to errors. Regular meetings and reports can help ensure that everyone is on the same page. The text also mentions that transparency in financial reporting is crucial for building trust with stakeholders and investors.

The final part of the document provides a summary of the key points discussed. It reiterates that accurate record-keeping, the use of technology, and clear communication are the three pillars of effective financial management. The text ends with a call to action, encouraging the reader to implement these practices to achieve long-term financial success.

[Signature]
[Name]
[Title]
[Company Name]

Teledemocracy also thrived as an idea in the early 1980s, gaining both supporters and critics, most of whom were silent on the ability of cable to serve as a vehicle for enhanced political participation.¹⁴⁴ However, Benjamin Barber's Strong Democracy incorporates two-way cable into a broad attempt to achieve greater political involvement.¹⁴⁵ To Barber,

interactive systems have a great potential for equalizing access to information, stimulating participatory debate across regions, and encouraging multichoice polling and voting informed by information, discussion, and debate.¹⁴⁶

Barber's plan called in part for a "Civic Communications Cooperative," whose goal would be "to promote and guarantee civic and democratic uses of telecommunications."¹⁴⁷ He also promoted the idea of a "Civic Videotex Service" that would be

a standard, nationwide, interactive, and free videotex service that would provide viewers with regular news, discussions of issues, and technical, political, and economic data...Each citizen would be guaranteed the same access to vital civic information and would be linked into an information-retrieval system with vast educational and development potential.¹⁴⁸

Thus to Barber the new media were a means by which the lost pleasures of

¹⁴⁴ Among the supporters: Michael Goldhaber, "Microelectronic Networks: A New Workers' Culture in Formation?" Critical Communications Review Volume 1 (1983), pp. 211-243; Sam Lehman-Wilzig, "Political Participation in the Post-Industrial Age," World Future Society Bulletin July/August 1983, pp. 9-14, and "Teledemocracy from the Top," Telecommunications Policy March 1983, pp. 5-8; and John Naisbitt, Megatrends (New York: Warner, 1982), pp. 103-117, 159-187. Among the critics: Jean B. Elshtain, "Democracy and the QUBE Tube," The Nation August 7-14, 1982, pp. 108-110; Michael Malbin, "Teledemocracy and its Discontents," Public Opinion June/July 1982, pp. 58-9, and Barry Orton, "Phony Polls: The Pollster's Nemesis," Public Opinion June/July 1982, pp. 56-60.

¹⁴⁵ Berkeley: University of California, 1984.

¹⁴⁶ p. 276.

¹⁴⁷ p. 277.

¹⁴⁸ p. 279.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This not only helps in tracking expenses but also serves as a legal safeguard in case of an audit.

2. The second part of the document outlines the various methods used to collect and analyze data. It includes a detailed description of the sampling process, ensuring that the data is representative of the entire population. The analysis phase involves using statistical tools to identify trends and anomalies within the data set.

3. The third part of the document provides a comprehensive overview of the results obtained from the study. It includes several tables and charts that illustrate the key findings. The data shows a clear correlation between the variables being studied, which supports the initial hypothesis of the research.

4. The final part of the document discusses the implications of the findings and offers recommendations for future research. It suggests that further studies should be conducted to explore the underlying causes of the observed trends and to test the findings in different contexts.

common discourse and decision-making could be recaptured.

Along the same lines, though without the theoretical underpinnings, Richard Hollander's Video Democracy¹⁴⁹ makes the same claim. Hollander, however, more clearly links his democratic agenda with cable. "What the cable industry has failed to see," he writes, "is that interactive TV is its only option" due to pressures from the telephone industry on the one hand and alternative video technologies on the other.¹⁵⁰ The potential of the technology has not been realized, according to Hollander, because industry leaders have not offered unique and serious programming choices. "It (QUBE) was never designed to be a political vehicle," he writes, in contradiction to the insider view offered by TCI's John Malone that in fact the goal of QUBE and other interactive systems was to curry favor with regulators.¹⁵¹ Hollander calls for commissions "in every state, perhaps in every county" that would write plans for "utilizing interactive cable technology for the purposes of running local government."¹⁵² A.J. Bahm's Computocracy, based on networked personal computers rather than interactive cable, was directed toward the same set of goals.¹⁵³

By the latter half of the 1980s works were being published that assessed the wired city and teledemocracy experiences of the late 1970s and early 80s.

¹⁴⁹ Mt. Airy, MD: Lomond Publications, 1985.

¹⁵⁰ p. 19.

¹⁵¹ p. 20.

¹⁵² p. 142.

¹⁵³ Albuquerque, NM: World Books, 1985.

1. The first step in the process of identifying a problem is to recognize that a problem exists. This is often done by comparing current performance with a desired state or goal. For example, a manager might notice that sales are declining or that customer satisfaction is low. Once a problem is identified, the next step is to define it more precisely. This involves determining the scope of the problem, its causes, and its effects. For instance, a manager might define a sales decline as a 10% drop in revenue over the last quarter, caused by a decrease in the number of new customers and a loss of existing customers. The third step is to analyze the problem. This involves gathering data, identifying patterns, and testing hypotheses. For example, a manager might analyze sales data to see if there is a seasonal trend or if the decline is more pronounced in certain regions. The fourth step is to generate alternative solutions. This involves brainstorming ideas and evaluating their potential benefits and costs. For instance, a manager might consider increasing marketing efforts, improving customer service, or offering discounts. The fifth step is to select a solution. This involves choosing the most promising alternative based on the available information. The final step is to implement the solution and monitor its progress. This involves putting the chosen solution into action and tracking its results to see if it is effective in solving the problem.

2. The process of identifying a problem is a continuous one. As a manager implements a solution, they may discover new problems or realize that the current solution is not working. For example, a manager might find that increasing marketing efforts leads to a short-term increase in sales but also results in higher costs. In this case, the manager would need to re-evaluate the problem and generate new solutions. The process of identifying a problem is also influenced by the manager's perspective and the information available. A manager with a different perspective or more information might identify a different problem or a different solution. Therefore, it is important for managers to be open to new ideas and to continuously monitor the situation.

Christopher Arterton's Teledemocracy: Can Technology Protect Democracy?¹⁵⁴

includes a useful categorization of attempts to achieve greater participation through the use of advanced media and reviews the attempts to do so. "Increased interactivity through telecommunications" is cited as one of the characteristics of new media that will change the way in which information is communicated. Arterton asserts that political participation "inherently demands an interactive form of communication,"¹⁵⁵ but cites the example of citizen's band radio to show that as long as users interact as discrete individuals the content of the medium is not likely to be overtly political. However, while he concludes that "a huge number of value choices are already implicit in the regulatory policies under which a medium is established,"¹⁵⁶ Arterton says little on the history or future of cable television in particular.

On the other hand, William Dutton, Jay Blumler, and Kenneth Kraemer's Wired Cities: Shaping the Future of Communications¹⁵⁷ is almost entirely focused on cable. In it, Kenneth Laudon evaluates the "Promise Versus Performance of Cable," Carol Davidge assesses QUBE, Robert Pepper looks at cable in relation to other telecommunications service providers, and Lee Becker reviews the history of research on interactive cable. With the goal of studying the "the actors and motivations behind the development of new

¹⁵⁴ Beverley Hills, CA: Sage, 1987.

¹⁵⁵ p. 37.

¹⁵⁶ p. 185

¹⁵⁷ Boston: G.K. Hall, 1987. The problem of doing research in this area is highlighted by the case of this work, which is catalogued under the Library of Congress headings for "telecommunications systems" and for "cities and towns--communications systems" but not for cable television.

1. The first part of the document is a list of names and addresses of the members of the committee.

2. The second part of the document is a list of names and addresses of the members of the committee.

3. The third part of the document is a list of names and addresses of the members of the committee.

4. The fourth part of the document is a list of names and addresses of the members of the committee.

5. The fifth part of the document is a list of names and addresses of the members of the committee.

6. The sixth part of the document is a list of names and addresses of the members of the committee.

7. The seventh part of the document is a list of names and addresses of the members of the committee.

8. The eighth part of the document is a list of names and addresses of the members of the committee.

9. The ninth part of the document is a list of names and addresses of the members of the committee.

10. The tenth part of the document is a list of names and addresses of the members of the committee.

11. The eleventh part of the document is a list of names and addresses of the members of the committee.

12. The twelfth part of the document is a list of names and addresses of the members of the committee.

13. The thirteenth part of the document is a list of names and addresses of the members of the committee.

14. The fourteenth part of the document is a list of names and addresses of the members of the committee.

15. The fifteenth part of the document is a list of names and addresses of the members of the committee.

16. The sixteenth part of the document is a list of names and addresses of the members of the committee.

17. The seventeenth part of the document is a list of names and addresses of the members of the committee.

18. The eighteenth part of the document is a list of names and addresses of the members of the committee.

19. The nineteenth part of the document is a list of names and addresses of the members of the committee.

20. The twentieth part of the document is a list of names and addresses of the members of the committee.

21. The twenty-first part of the document is a list of names and addresses of the members of the committee.

22. The twenty-second part of the document is a list of names and addresses of the members of the committee.

23. The twenty-third part of the document is a list of names and addresses of the members of the committee.

24. The twenty-fourth part of the document is a list of names and addresses of the members of the committee.

25. The twenty-fifth part of the document is a list of names and addresses of the members of the committee.

26. The twenty-sixth part of the document is a list of names and addresses of the members of the committee.

27. The twenty-seventh part of the document is a list of names and addresses of the members of the committee.

technologies and policies,"¹⁵⁸ they review experiments in Japan, France, Germany, and Britain as well as the United States.

In their history of the idea of wired cities, the editors cite the historic though not logically necessary connection between the cable television industry and the dream of universal access to "an integrated array of all kinds of electronic information and communications services."¹⁵⁹ They note that the concept developed in concert with the Johnson administration's "Great Society." In their re-telling of cable's history they cite the industry's weak financial performance in the early 1980s and consumer interest in premium video programming as the twin reasons cable grew in the direction of entertainment programming rather than in the direction of local community-oriented programming or interactive services. They observe a post-cable re-emergence of the wired cities vision in the 1980s fueled instead by micro-electronic and fiber optic developments in the computing and telephone industries. As Dutton et al. indicate, the wired city vision of technology as a tool for achieving equity, diversity, and democracy provides a normative scenario for the development of communications--one that existed prior to and outside of any governmental actions to realize it.

The Laudon, Pepper, and Becker essays, comprising as they do the heart of the book's contribution to cable scholarship, will be summarized here. The Davidge essay will be considered in the discussion of QUBE, in section IV below.

¹⁵⁸ p. iv. They note that there have been few studies of this kind.

¹⁵⁹ p. 4.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities related to the business.

2. It also emphasizes the need for regular audits and reviews to ensure compliance with applicable laws and regulations.

3. Furthermore, the document highlights the significance of proper documentation and record-keeping for tax purposes.

4. In addition, it provides guidance on how to effectively manage and organize financial data for better decision-making.

5. The document also addresses the importance of maintaining accurate and up-to-date financial statements.

6. Moreover, it discusses the role of financial reporting in providing transparency and accountability to stakeholders.

7. Finally, the document concludes by reiterating the importance of diligent record-keeping and financial management practices.

8. It is essential for businesses to adhere to these guidelines to ensure the integrity and accuracy of their financial records.

9. By following these best practices, businesses can minimize the risk of errors and non-compliance.

10. This document serves as a comprehensive guide for businesses seeking to optimize their financial record-keeping processes.

11. It is recommended that businesses consult with a professional advisor for further assistance and guidance.

12. The information provided in this document is intended to be a general overview and should not be construed as legal advice.

13. For more detailed information, please refer to the relevant sections of the document or contact the appropriate authorities.

14. We encourage businesses to take proactive measures to ensure the accuracy and reliability of their financial records.

15. Thank you for your attention to this important matter. We hope this document provides valuable insights and guidance.

To Laudon interactivity was "the belle of the cable fable." In its failure, however, Laudon acknowledges that QUBE in particular was successful in helping Warner secure franchises. The participation of 25% of all subscribers on a monthly basis in interactive programming is cited as an indication of the lack of consumer interest in such services. Although Laudon notes that participation in public policy shows ran second to game shows. Although overly optimistic in years past, cable's future is still as "an alternative, full service interactive telecommunications network." However, Laudon says such a network will not be realized until "a long, long time in the future."¹⁶⁰ The safer path for cable to follow, and the one he says is most likely to be followed, is for cable to emulate the broadcast model of programming directed to mass audiences.

Pepper cites the cost of the hardware necessary to make cable systems bidirectional as the most important reason that interactive services have developed with the telephone network as a transport medium. Since cable is not universally available, Pepper says that it cannot compete with the telephone network as a means of providing mass scale interactivity. Finally, he identifies the regulatory obstacles provided by state public service commissions as another key reason operators have not spent more time or money developing interactive cable.

Finally, Jeff Abramson, Chris Arterton and Garry Orren's The Electronic Commonwealth attempts to assess the impact of the new media technologies upon American politics.¹⁶¹ They identify interactivity as the most important

¹⁶⁰ p. 37, 39.

¹⁶¹ New York: Basic Books, 1988.

1. **Introduction:** The first paragraph introduces the topic of the paper, which is the impact of climate change on the environment. It states that climate change is a global issue that affects everyone and that it is important to understand its effects on the environment.

2. **Background:** The second paragraph provides background information on climate change, including the greenhouse effect and the role of greenhouse gases. It explains that the greenhouse effect is a natural process that keeps the Earth warm, but that human activities have increased the amount of greenhouse gases in the atmosphere, leading to global warming.

3. **Methods:** The third paragraph describes the methods used in the study. It states that the study is a literature review that examines the effects of climate change on the environment. It mentions that the study includes a search of scientific journals, books, and other sources.

4. **Results:** The fourth paragraph presents the results of the study. It states that the study found that climate change has a significant impact on the environment. It lists several effects, including rising sea levels, melting glaciers, and more frequent and severe weather events.

5. **Conclusion:** The fifth paragraph concludes the paper by summarizing the findings and discussing the implications. It states that the study shows that climate change is a serious threat to the environment and that it is important to take action to reduce greenhouse gas emissions.

6. **References:** The sixth paragraph lists the references used in the study. It includes several scientific journals, books, and other sources that provide information on climate change and its effects on the environment.

7. **Appendix:** The seventh paragraph contains an appendix that provides additional information on the study. It includes a list of the keywords used in the search and a list of the sources that were reviewed.

8. **Conclusion:** The eighth paragraph is a final conclusion that summarizes the main points of the paper. It states that climate change is a global issue that affects everyone and that it is important to understand its effects on the environment. It also states that the study found that climate change has a significant impact on the environment and that it is important to take action to reduce greenhouse gas emissions.

element in the newness of the new media, the characteristic that "sharply distinguishes the new media from the old." Despite the "massive attention" interactive cable has received, they recognize it as "but a possibility for the future."¹⁶² They write:

When we started research for this book in the early 1980s, it appeared that the technology for two-way or interactive television might make a dramatic contribution to democratizing the electronic media...[Yet,] no promise of the new media remains more unfulfilled than the arrival of interactive television...As of 1986 only Warner Cable Corporation and Viacom Cable were marketing interactive cable. Only rarely these days does the programming have political or public-affairs content; typically it is home participation in a quiz show...[This] vulgarization of two-way cable into a gimmick for quiz shows is an illustration of just how difficult it is to break the mass-entertainment hold on television.¹⁶³

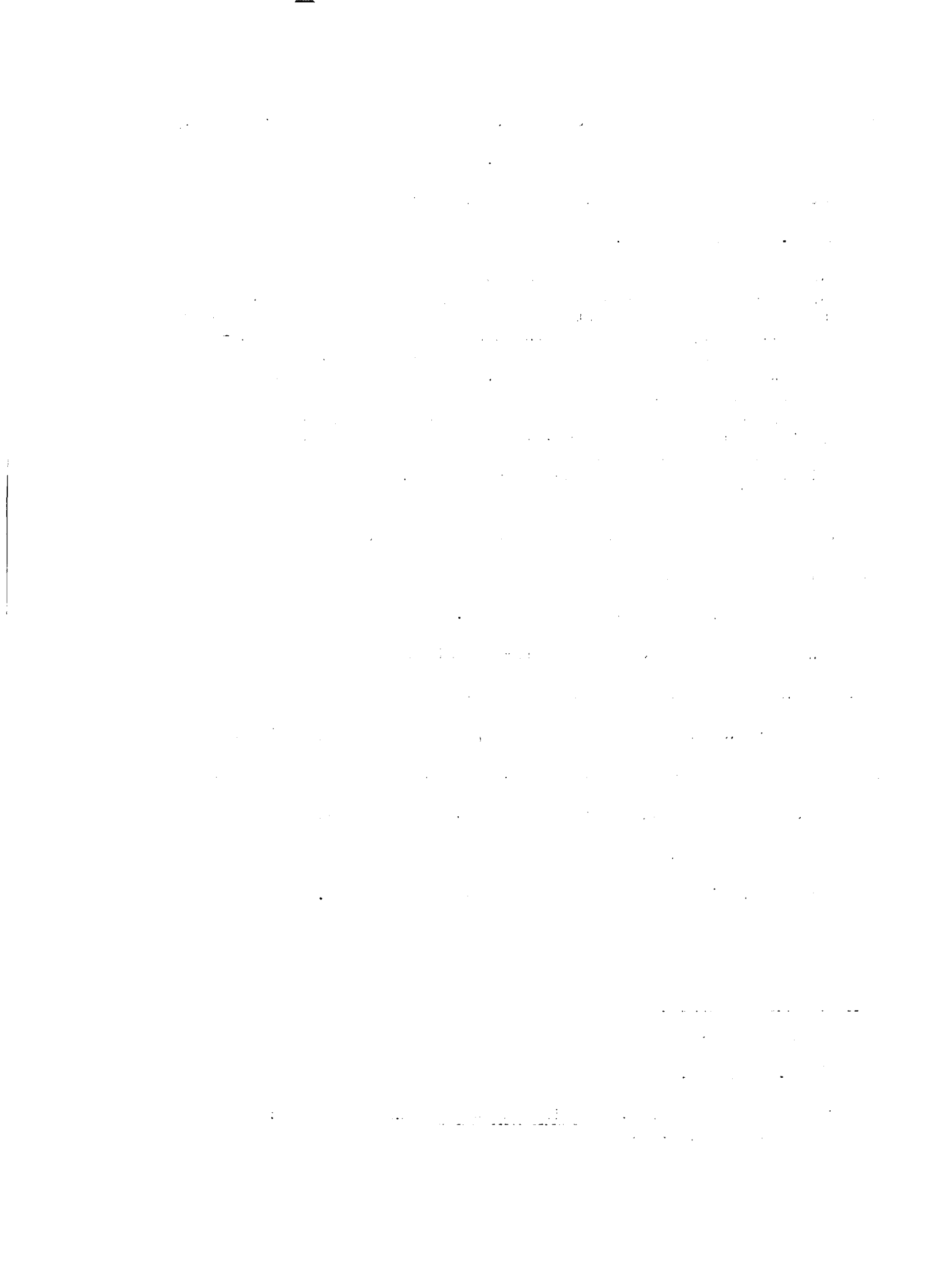
Thus in the time it took them to complete their book, interactive cable went from being seen as "another great miracle of our time"¹⁶⁴ to an odd historic footnote in the history of electronic media.

This outcome was by no means pre-determined by either policy or technology. It might have turned out differently. The next chapter will outline a means by which we can gain some analytic power over this question as we attempt to explain the many lives of two-way cable and discuss the regulatory framework, interactivity, and teledemocracy. In the chapter that follows we will apply that framework to the historical record to see if the causes of interactive cable's demise can be separated and evaluated.

¹⁶² p. 61, 63.

¹⁶³ p. 291, 292.

¹⁶⁴ Joseph Newman (ed.), Wiring the World (Washington, DC: US News and World Report, 1971), p. 5.



Chapter III Methodology

What we are attempting to explain are the dynamics underlying the development of interactive cable services. The most compelling feature in the history of cable's relationship with interactive services is its periodicity--the boom periods of enthusiasm followed by periods of disappointment when the dream failed to materialize as anticipated. Given that pattern, how best can this phenomenon be studied? What analytic tools provide the best framework for understanding?

Since the evolution of cable network capabilities is the subject of this analysis theories centered upon senders, messages, or receivers may be discarded. Thus, approaches designed to study the role of senders as agenda-setters or gatekeepers, or content analyses of messages, or the uses and gratifications sought by receivers or the effects of the messages upon them, limited or otherwise, are not applicable to this research. Neither are survey research or experimental methods appropriate to understanding the series of events that led to this non-adoption of interactive cable.

Instead, this study is focused on the evolution of the communications conduit, but not in the sense of understanding the affect of the conduit on message distortion but in the sense of the technical attributes that are or are not incorporated into the network. For this, four methodological techniques were analyzed in detail.

Quantitative techniques were investigated but ultimately discarded. A statistical correlation between the financial performance of cable operators and the development of interactive services at first held out some analytic promise. One conceivably could chart the financial growth of the industry and

correlate that with the development of interactive services to see if interactive services have historically shown their strongest growth in times of robust financial health for the industry.

However, although there are many figures available to measure financial performance, numbers characterizing cable's development of interactive services are essentially impossible to come by. The closest substitute would be the number of miles of bi-directional cable plant, but these figures are not kept by the FCC in an aggregated way. Only the firms engaged in analysis of the cable industry have maintained such figures, but they are estimates that have not been empirically verified. They are also no longer kept, casting further doubt upon their usefulness. A conceivable substitute is the price of bi-directional cable amplifiers. A competitive market for these components--which are necessary for a substantial amount of interactivity--existed for a brief time in the late 1970s and early 1980s. However, the market for these components is epiphenomenal. It reflects other activities rather than serving as a cause. In addition, there are forms of interaction that use the telephone network as a return channel for which neither type of cable-specific hardware is required. For these reasons, statistical correlation as a method of investigation has been eliminated.

Three other methods that allow post-hoc evaluation of change over time were investigated in depth. They were studies of the diffusion of innovations, evaluation research, and critical events analysis.

A huge literature exists on the diffusion of innovations. The advantage of this approach, as Rice puts it, is that it "indicates how adoption of new media technologies may become inextricably caught up on social and

institutional structures."¹⁶⁵ Typically, this model includes four elements: an innovation, the channels through which it is communicated, the time it takes this communication to occur, and the members of the social system who are involved. However, as Rogers points out, there are factors related to new media that make diffusion different in their case than for other technologies.¹⁶⁶ These factors are the necessity of group adoption before the technology serves a useful purpose or the problem of critical mass, the fact that these technologies are tools that may be applied by users in different ways unlike many technologies, and the problem contained by the differences between physical adoption of a technology and its actual integration into the users work and recreational habits. In the case of new media, the gap between mere adoption and actual implementation may be quite broad.

Rogers goes on to show that until the 1970s the diffusion of innovations literature was focused exclusively on individuals. More recently, however, it has been applied to the adoption of technologies by organizations. This changed the methods of research from surveys to in-depth case studies and he offers a model for research conducted along these lines. However, while we may concur with him that "innovation is a keenly social process, so it is important to examine the key social roles that govern the speed and adequacy of implementation,"¹⁶⁷ the model of organizational adoption does not fit the study of adoption by an entire social or political system. The interplay

¹⁶⁵ Ronald Rice, The New Media: Communication, Research, and Technology (Beverly Hills, CA: Sage, 1984), p. 75.

¹⁶⁶ Everett Rogers, Communications Technology: The New Media in Society (New York: The Free Press, 1986), pp. 120-22.

¹⁶⁷ Ibid, p. 143.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in the context of public administration and financial management. The text highlights that records should be maintained in a clear, organized, and accessible manner, ensuring that all relevant information is captured and preserved for future reference.

2. The second part of the document addresses the challenges associated with record-keeping, such as data loss, corruption, and unauthorized access. It suggests implementing robust security measures, including encryption, access controls, and regular backups, to mitigate these risks. Additionally, it stresses the need for staff training and awareness to ensure that records are handled responsibly and in accordance with established protocols.

3. The third part of the document focuses on the integration of record-keeping with other organizational systems and processes. It advocates for a holistic approach that aligns record management with overall business objectives and operational efficiency. This involves leveraging technology, such as digital record-keeping systems and data analytics, to streamline processes and improve decision-making.

4. The fourth part of the document discusses the legal and regulatory requirements governing record-keeping. It notes that organizations must comply with various laws and regulations, such as data protection laws and industry-specific standards, to avoid legal penalties and reputational damage. It emphasizes the importance of staying up-to-date with changing regulations and seeking legal counsel when necessary.

5. The fifth part of the document concludes by reiterating the significance of record-keeping as a cornerstone of good governance and organizational success. It encourages organizations to adopt a proactive and systematic approach to record management, ensuring that all records are accurate, secure, and readily available for use.

6. The final part of the document provides a summary of the key points discussed and offers recommendations for further action. It suggests that organizations should conduct regular audits of their record-keeping practices to identify areas for improvement and ensure ongoing compliance. It also recommends fostering a culture of transparency and accountability, where record-keeping is viewed as a critical component of organizational integrity and performance.

among the key actors does not follow the stages of initiation, decision, and implementation in a linear pattern but instead stops and starts and returns to the beginning or skips to the end in seemingly random order. And although consumer adoption is an important force acting upon the development or nondevelopment of interactive services by cable operators it is only one force, and one that appears to come relatively late in the decision-making process after others have decided the communications functions that will be incorporated into the network. The process of diffusion of innovation in the cable industry is an interactive, fundamentally political process and must be studied as such.

Evaluation research is also a possible approach. As Rogers points out, the majority of scholarship on the new media follows this approach. However, this approach has two major drawbacks for this study--it may not easily be conducted post hoc and is focused on the individual level of analysis. As Rogers delineates, the typical research design using this method gathers data from users by either surveys or interviews both before and after the introduction of a new technology.¹⁶⁸ However, seldom are communications researchers invited to begin their evaluation prior to the introduction of a new medium but worse from our standpoint is that this method is once again focused on the individual level of analysis.

As Rogers points out further the search for effects at the individual level is not effective at studying what causes change over time, except crudely. He suggests process research as a means to explain how and why a sequence of events occurs. Denis McQuail also argues in his criticism of

¹⁶⁸ Ibid, p. 217-18.

traditional communications research techniques that in the case of new media we are "studying a process (something that is concretely happening, e.g., the installation and putting to work of new message distribution and exchange systems) rather than effects."¹⁶⁹ He suggests an integrated approach that includes both lessons learned from the diffusion of innovations as well as the approach taken by Kraus et al. in studying critical events. This approach, as McQuail represents it,

has the advantages of focusing on events (often extended) and of calling attention to the need to study in an approximate time sequence the following: elite and general public actors and their goals and perceptions; what actually happens; and the societal or community context of events...It requires a wide variety of techniques of data collection and analysis and a degree of integration of data at individual and societal levels.¹⁷⁰

Because this technique allows integration of the actions of elite actors with the response of mass audiences over time, because it can be conducted after the events have already occurred, and because it is focused on the societal level of analysis, this technique was selected for application to the question at hand.

Critical Events Analysis

The definitive statement of critical events analysis is by Kraus et al.¹⁷¹ They describe this technique as an integration of events-based

¹⁶⁹ Denis McQuail, "Research on New Communications Technologies: Barren Terrain or Promising Arena," in Dutton et. al. Wired Cities (Boston: G.K. Hall, 1987), p. 436.

¹⁷⁰ McQuail, p. 436.

¹⁷¹ Sidney Kraus, Dennis Davis, Gladys Lang, Kurt Lang, "Critical Events Analysis," Steven Chaffee (ed) Political Communication (Beverly Hills, CA: Sage, 1975), pp. 195-216.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities related to the business.

2. It is essential to ensure that all financial data is properly documented and organized, as this will facilitate the preparation of financial statements and tax returns.

3. The second part of the document outlines the various methods and techniques used to collect and analyze data, including the use of statistical software and data visualization tools.

4. It is important to note that the accuracy and reliability of the data are crucial for the validity of the analysis and the conclusions drawn from it.

5. The final part of the document provides a summary of the key findings and conclusions, along with recommendations for future research and data collection efforts.

6. In conclusion, the document emphasizes the significance of data in decision-making and the need for a systematic and rigorous approach to data collection and analysis.

explanations focused on individual actions and the modelling of interrelated social variables. "Critical events analysis," they write, "seeks to identify those events which will produce the most useful explanations and predictions of social change."¹⁷² It attempts to integrate both data drawn from the individual and societal levels of analysis, and its purpose is "to provide a scientific explanation of how elite actions have social consequences and how certain social processes constrain elite actions or negate their intended impact."¹⁷³

Kraus et al. review the application of this method to the study of single events such as bombings,¹⁷⁴ political conventions,¹⁷⁵ and kidnappings.¹⁷⁶ The trouble with these crisis-oriented events, as Kraus et al. show, is that they serve to heighten the power of elites, which "may be able to command conformity from the public or widespread acceptance of elite action that will not extend to more normal situations."¹⁷⁷ This method is not however, limited to the study of attitude change as a result of single, dramatic, public events. They point out that event or series of events may "become crucial points of reference by which other events are evaluated." It

¹⁷² *ibid*, p. 196.

¹⁷³ *Ibid*, p. 200.

¹⁷⁴ H. Lever, "The Johannesburg Station explosion and ethnic attitudes," Public Opinion Quarterly Summer 1969, pp. 180-89.

¹⁷⁵ K. Lang and G. Lang, Politics and Television (Chicago: Quadrangle, 1970).

¹⁷⁶ R.M. Sorrentino and N. Vidman, "Impact of events: Short- vs. long-term effects of a crisis," Public Opinion Quarterly Vol 34 (Summer 1974), pp 158-70.

¹⁷⁷ *Ibid*, p. 203.

is in this latter definition that we will apply to the term critical event.

In designing a study using this approach, Kraus et al. recommend that "only a small number of variables be intensely studied."¹⁷⁸ They suggest that data be gathered by means of focused interviews with elite actors and direct observation or by surveys. Although "each event can be viewed as a case study more or less complete in itself,"¹⁷⁹ the events may also be interpreted in cumulative fashion, as the baseline from which successive events are examined. They conclude that this approach integrates a number of existing research methods. Its strength lies in its ability to be used to interpret complex social processes over time.

Since Kraus et al. no scholarly articles have been written specifically about this method,¹⁸⁰ although it has been applied in a number of studies such as the explosion of the space shuttle Challenger,¹⁸¹ the abortion debate,¹⁸² and environmental policy-making.¹⁸³ As with Kraus et al. the focus has often been upon the role of the news media in communicating an event or series of events and the resulting attitude change. However, another application of critical events analysis as reported by Miles and Huberman is not concerned

¹⁷⁸ Ibid, p. 206.

¹⁷⁹ Ibid, p. 213.

¹⁸⁰ At least none with the three words critical events analysis in the title, according to the Social Science Citation Index.

¹⁸¹ G.R. Petty, et. al. "Feeling and Learning about a Critical Event," Central States Speech Journal Vol. 37, Number 3 (1986), pp. 166-179.

¹⁸² J.C. Pollock, "Media Agendas and Human Rights--Supreme Court Decision on Abortion," Journalism Quarterly Vol. 55, Number 3 (1978), p. 544-.

¹⁸³ A.C. Schoenfeld, "Press and NEPA--The Case of the Missing Agenda," Journalism Quarterly Vol. 56, Number 3 (1979), pp. 577-585.

1. The first part of the document discusses the importance of maintaining accurate records.

2. It is essential to ensure that all data is entered correctly and consistently.

3. Regular audits should be conducted to verify the integrity of the information.

4. Proper documentation is crucial for compliance with industry standards.

5. The following table provides a summary of the key findings.

6. The data indicates a significant increase in efficiency over the past quarter.

7. This improvement is attributed to the implementation of new software tools.

8. However, there are still areas where performance needs to be enhanced.

9. The next steps involve further training and optimization of the processes.

10. It is recommended that a detailed report be submitted by the end of the month.

Appendix A

11. This section contains additional data points for reference.

12. The information is organized into a structured format for clarity.

13. Please refer to the relevant sections for more details.

14. The following table shows the distribution of resources.

15. The data is presented in a clear and concise manner.

16. This allows for easy comparison and analysis.

17. The results show a positive correlation between the variables.

18. The findings are consistent with the previous studies.

19. The overall conclusion is that the current approach is effective.

20. The next phase of the project will focus on scaling the operations.

21. It is expected that the new strategy will yield even better results.

22. The project team is committed to achieving the highest quality.

23. Thank you for your attention and support throughout the process.

with either public events or with attitude changes.¹⁸⁴ It is of a study by Stiegelbauer et al. that attempted to extract critical incidents that occurred during the implementation of a new academic program. The Stiegelbauer et al. study selected events that had a "strong catalytic effect" on the need for the program.¹⁸⁵

Research Design

In its ability to integrate elite actions with mass response and to explain a series of events that make up a complex social process over time critical events analysis is suitable for the current research. In our application of it, however, we are not concerned with necessarily public events, the role of the media in communicating an event, or with a change in mass attitudes as a result of the event but with pivotal events by which succeeding events are evaluated.

Critical events analysis will be operationalized in the following way. Four sets of actors and four processes will be examined. The first set of actors are public interest representatives, including scholars and study groups that issued reports on the future of cable television. The second set of key actors are the regulators of cable television including federal, state, and local regulators. Industry decisionmakers are the third set of actors and

¹⁸⁴ Matthew Miles and Michael Huberman, Qualitative Data Analysis (Beverly Hills: Sage, 1984), pp. 128-130.

¹⁸⁵ S. Stiegelbauer, M. Goldstein, L. Huling, "Through the Eye of the Beholder: On the Use of Qualitative Methods in Data Analysis," Qualitative and Quantitative Procedures for Studying Interventions Influencing the Outcomes of School Improvement (R&D Report 3140), (Austin: R&D Center for Teacher Education, University of Texas).

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

will be defined to include both those who manage cable properties and those who make key decision about cable in capital markets. Finally, the mass public is the fourth actor.

The role of these actors will be explored by tracing four interrelated processes: technological development, regulation, economic and commercial development, and consumer acceptance.

In chronologically reviewing the literature of cable television from 1969 to 1989 any action by one of the actors involved in these processes that fundamentally alters the power relationship among them will be considered a critical event for the purposes of this study. Thus key decisions, policies, or actions are candidates for designation as critical events. If they establish a new order among the actors, or create a new framework within which their interaction must be conducted the event will be identified as "critical." In essence these are events that change the commonly accepted "rules of the game" within which all actors must operate.

Data gathering will consist of analysis of the documents that in whole or in part delineate the history of cable television, with particular attention given to that which has been written about interactivity. To a limited degree, interviews and usage statistics will be used where appropriate. The purpose is to examine most closely the critical turning points at which cable might have developed interactivity on a broad scale, and it has been selected due to its ability to integrate elite level decisions with mass level responses.

Chapter IV Analysis of Data

The history of interactive cable and five critical points in its development will be explored in this chapter. The first critical point is the FCC's 1972 Report and Order mandating bi-directional cable systems and the second critical event is the successful challenge of the agency's authority to issue such regulations. The third critical point is the era of the major franchising battles in major American cities in the period of 1979 to 1981 in which interactivity played a major role. The fourth point will be cable's period of retrenchment, symbolized by Warner Communication's cancelation of interactive programming on QUBE in January 1984. Finally, the passage of the Cable Act of 1984 marks a fifth critical turning point in the history of cable's relationship with interactive media because the power of local franchising authorities was substantially reduced.

Each of these points has been selected because they fundamentally altered the power relationship between the actors involved in the evolution of cable television and provided a new basis for their interaction.

A. The 1972 FCC Report and Order

The action of the FCC in 1972 calling for all cable systems to be interactive was the first official endorsement of interactive cable. Its foundation, however, was based on the plethora of future forecasts produced by government and privately sponsored study groups that began in 1968.

Although the commission acknowledged as far back as 1959 that cable could pose a threat to broadcasters it concluded that Congress would have to

act before it could regulate cable.¹⁸⁴ Then, as Richard Berner's case study of agency policy-making shows, the elevation of Kenneth Cox to the head of the FCC's Broadcast Bureau in 1962 brought a nearly immediate reversal of this position.¹⁸⁵ Cox believed that the agency was being internally inconsistent--attempting to promote local broadcasting yet licensing the microwave importation of signals to cable systems--so as soon as a case came along that could be used to reverse the agency's previous position it was taken. The FCC used the Carter Mountain case to reverse itself, finding the importation of distant signals to be harmful to local broadcasters.¹⁸⁶ In the face of Congressional inaction, the agency asserted authority over cable as "ancillary to broadcasting," a legal foundation that was to have significant ramifications later on. In 1965 the agency issued its first set of rules governing cable and in 1968 the Supreme Court upheld the Commission's regulation of cable regulation as "reasonably ancillary for the regulation of television broadcasting."¹⁸⁷

As the Commission was gradually assuming authority for directing the future of the cable industry a strong and seemingly unified campaign was underway by a number of different public interest groups. Through studies and reports, these groups, some under official sponsorship others independently, sought to provide a focus and direction for federal regulators to follow.

First among them was a task force established by President Johnson to study US communications policy. Led by White House advisor Eugene Rostow this

¹⁸⁴ CATV and Repeater Services, 26 FCC 403, at 428-9.

¹⁸⁵ Constraints on the Regulatory Process: A Case Study of the Regulation of Cable TV (Cambridge, MA: Ballinger, 1976).

¹⁸⁶ 321 F.2d 359 (DC Circuit 1962) Cert. denied, 375 US 951 (1963).

¹⁸⁷ US v. Southwestern Cable 392 US 157 (1968).

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in the context of financial reporting and auditing. The text highlights that without reliable records, it becomes difficult to verify the accuracy of financial statements and to identify any potential discrepancies or irregularities.

2. The second part of the document focuses on the role of internal controls in ensuring the integrity of financial information. It explains that internal controls are designed to prevent and detect errors and fraud, thereby safeguarding the organization's assets and ensuring the reliability of its financial data. The text notes that effective internal controls are a key component of a strong corporate governance framework and are critical for maintaining the trust of investors and other stakeholders.

3. The third part of the document addresses the challenges associated with implementing and maintaining robust internal control systems. It identifies common obstacles such as limited resources, lack of employee awareness, and resistance to change. The text suggests that organizations should invest in training and education to ensure that all employees understand their role in maintaining internal controls. Additionally, it recommends regular monitoring and evaluation of the internal control system to identify areas for improvement and to ensure that the system remains effective over time.

4. The fourth part of the document discusses the impact of external factors on internal control systems. It notes that changes in the regulatory environment, technological advancements, and market conditions can all influence the effectiveness of internal controls. Organizations must stay up-to-date on these external factors and be prepared to adapt their internal control systems accordingly. The text emphasizes that a proactive approach to internal control is essential for ensuring long-term success and sustainability.

5. The fifth part of the document concludes by reiterating the importance of internal controls and the need for continuous improvement. It states that internal controls are not a one-time exercise but an ongoing process that requires regular attention and resources. Organizations should foster a culture of transparency and accountability, where employees are encouraged to report any potential issues or concerns. By doing so, organizations can ensure the accuracy and reliability of their financial information and maintain the confidence of their stakeholders.

high-level group was established in the summer of 1967 and made its report at the very end of the Johnson Administration in December 1968. The task force's major conclusion was the cable had a tremendous capacity to enhance program diversity. Interactive capacity was seen as a key element in providing a broad range of programs:

Among the ways suggested for vastly increasing the diversity of television programming is a system that would permit a subscriber to dial the program of his choice from a library of TV tapes. The facilities necessary for this service could also be used to provide television channels for remote shopping and information services...¹⁸⁸

The report expresses doubt, however, that this means of delivering video selectively to each household will generate enough revenue to offset the substantially higher costs. Instead, it predicts the birth and growth of the videotape recording industry.¹⁸⁹

Not suprisingly, the National Association of Broadcasters moved quickly to squelch this potential competitor. In the document they issued to the Rostow Commission to state their case they reported that "the very survival of free television" was at stake. They called for a concerted effort "to defeat this concept of a wired city."¹⁹⁰

As the 1970s began, however, the voices of those who looked to cable as a means of multiplying the diversity of programming sources and establishing a

¹⁸⁸ "A Survey of Telecommunications Technology," Washington, DC: President's Task Force on Communications Policy, June 1969, Part 1, p. 86.

¹⁸⁹ Also written in 1968 as a cable proposal was Harold Barnett and Edward Greenberg, "A Proposal for the Wired City," Washington University Law Quarterly Volume I (Winter 1968), pp. 1-25.

¹⁹⁰ Herman W. Land Associates, Television and the Wired City: A Study of the Implications of a Change in the Mode of Transmission, Washington, DC: National Association of Broadcasters, 1968.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities related to the business. This includes keeping track of income, expenses, and assets. Proper record-keeping is essential for determining the business's financial health and for compliance with tax laws.

2. The second part of the document focuses on the various methods used to calculate the business's taxable income. This involves identifying all sources of income, including sales, services, and investments, and then subtracting all allowable deductions and expenses. The resulting net income is then subject to the applicable tax rates.

3. The third part of the document addresses the issue of tax credits and deductions. These provisions allow businesses to reduce their tax liability by claiming certain expenses and credits. Examples include the research and development credit, the energy-efficient home improvement credit, and the charitable contribution deduction.

4. The fourth part of the document discusses the importance of timely payment of taxes. Failure to pay taxes on time can result in penalties, interest, and even legal action. Businesses should establish a system for tracking tax deadlines and ensuring that payments are made on time.

5. The fifth part of the document provides information on the various tax forms and schedules that businesses must file with the IRS. This includes Form 990, Form 991, and various state and local tax forms. Understanding the requirements for each form is crucial for accurate reporting.

6. The sixth part of the document discusses the importance of seeking professional advice from a tax advisor or accountant. These professionals can provide valuable guidance on the most effective ways to structure the business's operations and manage its tax obligations. They can also help businesses take full advantage of all available tax benefits.

7. The seventh part of the document provides information on the various tax relief programs available to businesses. These programs are designed to encourage investment, innovation, and job creation. Examples include the Section 179 deduction, the bonus depreciation allowance, and the research and development credit.

8. The eighth part of the document discusses the importance of staying up-to-date on changes in tax law. The tax code is constantly evolving, and businesses must be aware of the latest developments to ensure compliance and optimize their tax strategy. This can be achieved through regular consultation with a tax professional or by monitoring tax news sources.

9. The ninth part of the document provides information on the various tax planning strategies available to businesses. These strategies can help businesses minimize their tax liability and maximize their cash flow. Examples include the use of tax-exempt bonds, the establishment of a trust, and the use of capital loss carryforwards.

10. The tenth part of the document discusses the importance of maintaining accurate records of all tax-related information. This includes keeping copies of all tax returns, schedules, and supporting documentation. Proper record-keeping is essential for defending against audits and for resolving any disputes with the IRS.

11. The eleventh part of the document provides information on the various tax relief programs available to businesses. These programs are designed to encourage investment, innovation, and job creation. Examples include the Section 179 deduction, the bonus depreciation allowance, and the research and development credit.

12. The twelfth part of the document discusses the importance of staying up-to-date on changes in tax law. The tax code is constantly evolving, and businesses must be aware of the latest developments to ensure compliance and optimize their tax strategy. This can be achieved through regular consultation with a tax professional or by monitoring tax news sources.

communications regime that promoted political participation grew in strength and number. A study sponsored by the Ford Foundation and published by the Rand Corporation in January 1970 for the most part sided with cable industry leaders in calling for few restrictions on cable programming.¹⁹¹ However, the ability of cable operators to act as a gatekeeper in selecting the information that subscribers would be able to receive as systems became more advanced led the author, Leland Johnson, to suggest that common carrier status could be "highly desirable" in the long run. But besides offering the possibility that subscribers would be able to use cable's interactive capacity to schedule the viewing of programs at their own convenience, Johnson was silent on the subject of interactivity.

The most forceful and widely-read panegyric on the future of cable was probably Ralph Lee Smith's "The Wired Nation," first published as a special issue of The Nation in May of 1970.¹⁹² Smith cited the high costs of political advertising via broadcast media and the lack of locally-produced video for the half of the population that lived in cities of less than 50,000 inhabitants as among the reasons to promote the development of cable over the objection of broadcasters. But his vision of "an electronic highway" was the most ambitious of his proposals. Just as the federal government had subsidized travel by building roads so should there be "a similar national commitment for an electronic highway system, to facilitate the exchange of information and ideas."

Smith blasted the regulatory structure and urged reform. "Cable TV is,

¹⁹¹ Leland Johnson, The Future of Cable Television: Some Problems of Federal Regulation Report RM-6199-FF (Santa Monica, CA: Rand, 1970).

¹⁹² As a monograph it was published by Harper and Row in 1972.

at present," he wrote, "not only incorrectly set up to provide full benefits to the public; it is set up in a way to abridge basic freedoms of speech, press and assembly."¹⁹³ He called not only for common carrier status for cable but urged that operators be designated public utilities and regulated as such. Many of the services he cited as being "strongly in the public and national interest" are based on the presence of a return channel such as library services, facsimile and mail deliveries, and crime prevention and detection services. Unless national planning was better with cable than it was for broadcast television, Smith warned that cable would fail to live up to its promise.

The month after Smith's work was first published, the Alfred Sloan Foundation established its own commission to look into the matter.¹⁹⁴ It also deplored the distance between cables "awesome" promise and its "trivial" impact. To that point in its development, according to the Sloan Commission report, cable had

dealt primarily with entertainment at a low level of sophistication and quality...It has been obliged to think of the mass audience almost to the exclusion of any other, and in doing so has robbed what it provides of any of the highly desirable elements of particularity.¹⁹⁵

Although the Sloan Commission report did not call for common carrier status it did recommend that cable operators be required to build systems with at least a limited return path. It predicted that this would be a conventional component in cable systems by the end of the decade. Interestingly, the

¹⁹³ p. 90.

¹⁹⁴ On the Cable: The Television of Abundance (New York: McGraw Hill, 1971).

¹⁹⁵ p. 167.

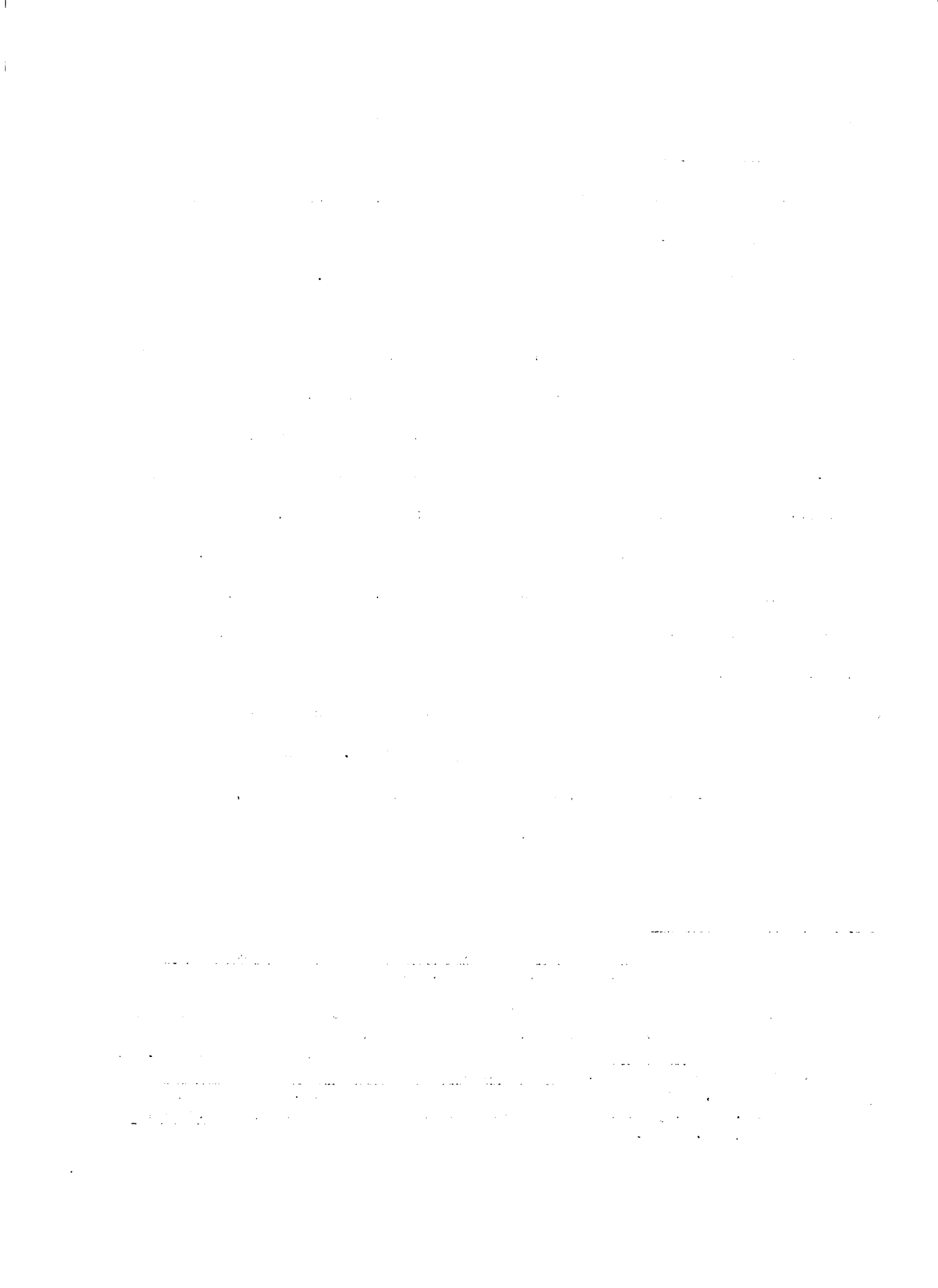
options they outlined for the development of interactivity included only the "digital return" (ie. the ability to say yes or no to a question posed by an on-screen host), and audio or video back to the head end (both of which were considered impossible). The presence of a terminal more sophisticated than a simple yes/no switch was not considered by the commission.

A conference in 1970 sponsored jointly by the University of Chicago and the American Federation of Information Processing Societies (AFIPS) also tried to move cable away from its pure entertainment orientation. A number of papers were presented that considered cable's future as a non-entertainment medium. Participants converged towards a consensus that cable was the most cost-effective choice among the various alternatives for "design[ing] an equitable distribution of information power for all strata of society."¹⁹⁶

In August 1971 FCC Chair Dean Burch wrote a fifty-five page letter to the Senate Communications Subcommittee outlining the Commission's proposed new approach to regulating cable. By the time this letter had grown into the Commission's 1972 Report and Order virtually everyone with a typewriter had published a comment on cable's revolutionary potential.¹⁹⁷ Between 1969 and 1972 the Ford, Kettering, Sloan, Edward Jon Noble, Kresge, Markle, Rockefeller and Stern Foundations contributed \$8,932,000 to the study of the future of

¹⁹⁶ Harold Sackman, Mass Information Utilities and Social Excellence (Princeton, NJ: Auerbach Publishers, 1971), p. 6.

¹⁹⁷ Other attempts include: William Mason, "Urban Cable Systems," MITRE Corporation Report M72-57 (May 1972); Peter Goldmark, "Communication and the Community," in Communication, a Scientific American Book (San Francisco: W. H. Freeman, 1972); Joseph Newman, Wiring the World: The Explosion in Communications (Washington, DC: US News and World Report, 1971); G.M. Walker, "String the Wired City: Two-Way TV descends from Blue Sky to Real World," Electronics September 1971, pp. 44-9.



cable television.¹⁹⁸ Industry leaders such as Irving Kahn were predicting "a significant number of systems with some type of two-way services in operation" within a few years. Operators began two-way tests in 1970 and 1971 in New York City and Massachusetts.¹⁹⁹

Richard Vieth's Talk Back TV: Two-Way Cable Television covers this period of interactive cable development quite extensively.²⁰⁰ Vieth recounts the experiments conducted by five companies (Rediffusion, Sterling Communications, Telecable Corporation, Teleprompter, and Mitre Corporation) in late 1970 and early 1971. Although each implemented interactivity differently these experiments represent the first wave of cable-based interactivity.

To Rediffusion, a British company, interactive cable meant a "Dial-a-Program" system in which a telephone dial was fitted to the television receiver. Users literally dialed the program source they wanted, which was then sent to them.

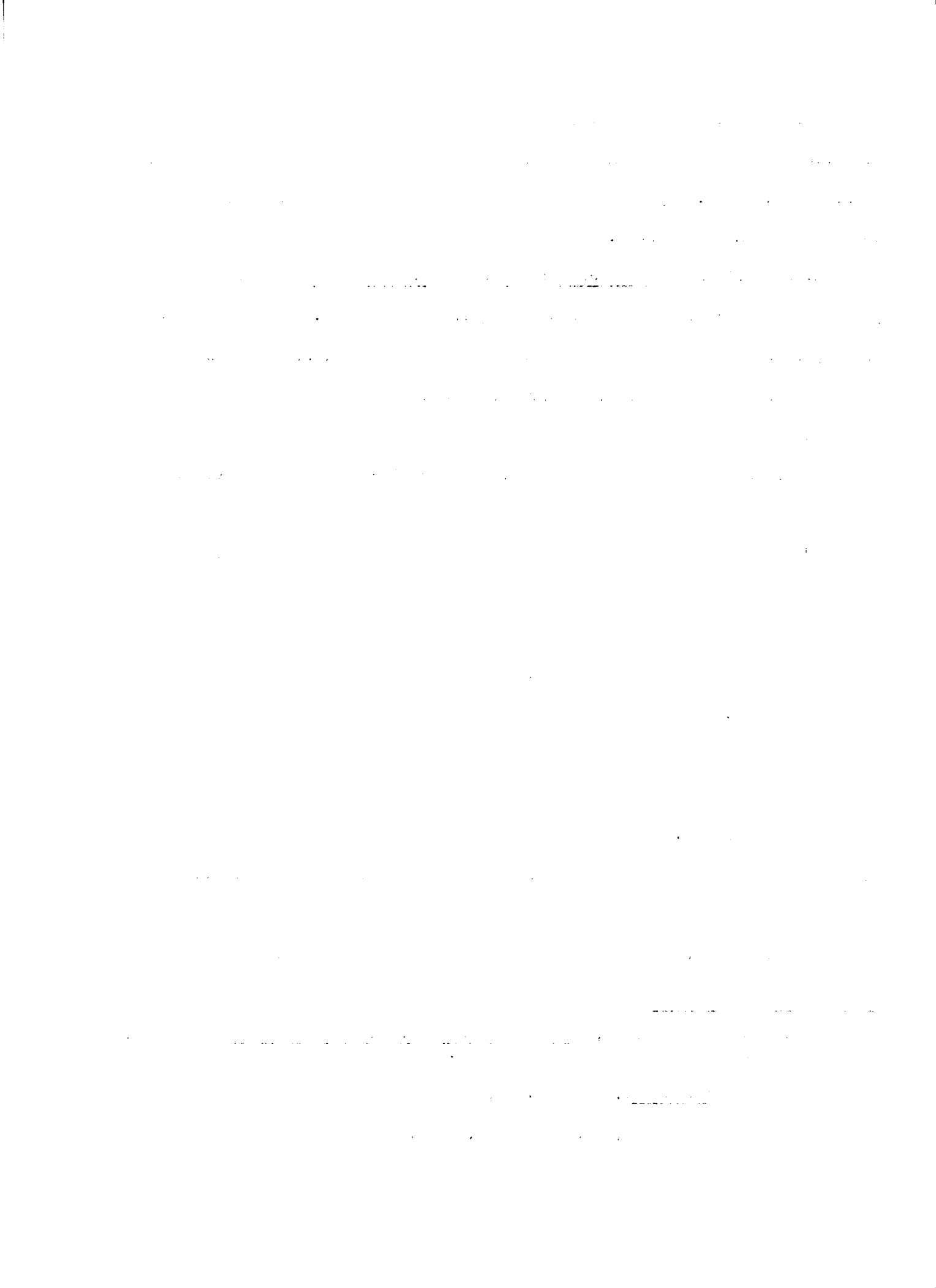
Sterling Communications was the company that owned the franchise for lower Manhattan. In its tests, ten terminals in four buildings allowed users to vote on "Miss Home Terminal of 1971." Although there were plans for a 500 terminal test, the acquisition of Sterling by Time, Inc. led to the end of this experimentation. The four-button set-top device used by Sterling was "typical of first-generation hardware for two-way TV," according to Vieth, who added that

whether or not such units have enough appeal for the consumer of TV services when compared to more extensive (and more expensive)

¹⁹⁸ The Network Project, Notebook Number 5: Cable Television June 1973, Appendix D (from foundation annual reports).

¹⁹⁹ Wiring the World, *ibid*, p. 21, 60-62.

²⁰⁰ Blue Ridge Summit, PA: TAB Books, 1976.



terminals is a question that cannot be answered before sufficient trials have been made.²⁰¹

The Telecable experiments represented a step beyond the first generation hardware. Telecable integrated video, voice, and keyboard-based communications but made them available at first to a single subscriber (a 17 year old boy suffering from a brain tumor). This was extended to six subscribers but then cancelled in 1973. Ultimately Telecable applied for and received money from the National Science Foundation to conduct education-related experiments in Spartanburg, South Carolina in conjunction with the Rand Corporation (discussed below.)

Teleprompter was at the time the nation's largest cable system operator. Due to lack of an acceptable home terminal, the company placed a video character generator in each household that could be used to create a textual message on a monitor at the cable company headquarters. A prototypical terminal was developed, according to Vieth, but not used in any actual tests.

The Mitre Corporation's experiments in Reston, Virginia used a hybrid cable-telephone system in which the return path was provided by the telephone network. The telephone was used to select a still picture at the cable company head end that was then displayed on the home television

As a result of all this activity Vieth concludes that

it is a foregone conclusion that two-way TV will become fully developed at some distant time. Not out of absolute necessity, to be sure, but from sheer weight of research and preliminary development...The studies and reports, the various pilot projects, the public and private investments, and the simple determination of a whole spectrum of individuals and organizations lead to the inescapable conclusion that two-way TV is here to stay.²⁰²

201 p. 40.

202 p. 194.

Elsewhere, however, he urges a "realistic assessment" of two-way TV and "a healthy skepticism regarding supposed social benefits."²⁰³

As a result of all this activity, the Commission's new regulatory blueprint for the next decade embraced both the television of abundance and the interactive visions built up by the "blue sky" literature. It required that new systems have a minimum capacity of twenty channels of which some had to be reserved for public, educational, and governmental access. New systems also had to have two-way capability and currently operating systems would have to be rebuilt by 1977 to provide the same capacity.²⁰⁴

B. The Challenge of the 1972 Rules

The Commission's rules faced the immediate opposition of industry decision-makers. They perceived the requirements as being an unnecessary drain on their financial resources which would inhibit the number of subscribers and enhance the status of broadcast television. However, the Commission also provoked another powerful interest group. The FCC policy included pre-emption of state regulation of the non-video two-way services it was requiring cable systems to provide. The purpose of this federal preemption was to limit the ability of the state utility commissions (traditionally dominated by telephone company interests) to squelch cable's growth into areas traditionally seen as the domain of the telephone industry.

Thus the attempt by the industry's leaders to get out from under FCC jurisdiction in 1972 in United States v. Midwest Video Corp. on the grounds

²⁰³ p. 210.

²⁰⁴ Docket Numbers 18397, 18397-A, 18373, 18416, 18892, 18894, 36 FCC 2d (1972).

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It includes a detailed description of the experimental procedures and the tools used for data collection.

3. The third part of the document presents the results of the study, including a comparison of the different methods and techniques used. It discusses the strengths and weaknesses of each method and provides a summary of the findings.

4. The fourth part of the document discusses the implications of the study and provides recommendations for future research. It highlights the need for further investigation into the effectiveness of the different methods and techniques used.

5. The fifth part of the document provides a conclusion and a summary of the key findings. It reiterates the importance of maintaining accurate records and the need for transparency and accountability in financial reporting.

6. The sixth part of the document provides a list of references and a bibliography. It includes a list of all the sources used in the study and provides a detailed description of each source.

7. The seventh part of the document provides a list of appendices and a bibliography. It includes a list of all the appendices used in the study and provides a detailed description of each appendix.

8. The eighth part of the document provides a list of figures and a bibliography. It includes a list of all the figures used in the study and provides a detailed description of each figure.

9. The ninth part of the document provides a list of tables and a bibliography. It includes a list of all the tables used in the study and provides a detailed description of each table.

10. The tenth part of the document provides a list of references and a bibliography. It includes a list of all the sources used in the study and provides a detailed description of each source.

the FCC had exceeded its jurisdiction was not successful. The Court found the Commission's objectives for program diversity and localism justified program origination requirements. The Court upheld the "ancillary jurisdiction" argument, but found that this "does not in and of itself prescribe any objectives for which the Commission's regulatory power over [cable] might properly be exercised."

This left open a challenge by the National Association of Regulatory Commissions (NARUC) that did successfully limit the 1972 rules. The state regulators considered their sovereignty violated and thus had a vital interest in challenging the rules. Agreeing with them, the Court of Appeals for the District of Columbia held in NARUC v. FCC that strictly intra-state two-way cable services are not subject to FCC jurisdiction.²⁰⁵

Then in 1979 the Supreme Court went even further. In FCC v. Midwest Video Corp. ("Midwest Video II") the Court held that the FCC had exceeded the limits of its authority by requiring free and leased access channels and two-way capacity. Since the Communications Act explicitly states that broadcasters shall not be designated common carriers and the FCC's rules had imposed obligations to offer facilities for public use over which they would have no editorial control the court felt that cable operators were being treated impermissibly. In a footnote, however, it did allow the possibility that the two-way capacity requirement could be justified on other grounds.²⁰⁶

During this period of legal challenge of the rules mandating two-way capacity the blue sky literature thrived. In 1973 Ithiel de Sola Pool edited

²⁰⁵ 533 F.2d 601 (1976).

²⁰⁶ 440 U.S. 689 (1979).

a book entitled Talking Back: Citizen Feedback and Cable Technology.²⁰⁷ It included six background papers written for the Sloan Commission and offered cable as a solution to the sense of alienation cited as being on the increase.

In his introduction, Pool wrote:

The social effects of interactive two-way cable technology are our central interest in this book. Providing citizens with increased participation in the running of their own communities is a priority goal. The thesis of this book is that the communications technologies that can most deeply affect the character of community interaction and community structure in the decades ahead are those that permit communication among medium-sized groups of persons, with two-way interaction among them.²⁰⁸

Although Pool and the other contributors considered both positive as well as negative consequences of interactive cable, and limited their predictions for the near term to "digital feedback" mechanisms, they also explored in detail how cable's bi-directionality could be put to work in a wide range of social and professional activities. Although more prudent than most, Talking Back still painted a picture of the Wired Nation.

The Nixon Administration's Cabinet Committee on Cable, formed in 1971, made its report in 1974.²⁰⁹ It called for cable to be designated a common carrier, after which all public, educational, and governmental carriage requirements would be lifted. Local governments would remain the franchising authorities, but other than description of a demonstration program that included interactive services the report did not deal with the FCC mandate for two-way cable plant. At this point in cable's history, the future presence of

²⁰⁷ Cambridge, MA: MIT Press, 1973.

²⁰⁸ p. 5.

²⁰⁹ US Cabinet Committee on Cable Communications, Report to the President (Washington, DC: Government Printing Office, 1974).

interactive services was assumed.

The last major work in the blue sky literature of cable's early years as a mass medium also called upon government-sponsored demonstration projects to get two-way cable off the ground. James Martin's The Wired Society²¹⁰ proposed model cable systems "in selected areas, such as new towns or university areas."²¹¹ Yet, he acknowledged that making these pilot projects a national reality would be difficult because of legal and regulatory problems. However, he predicted a growing market for interactive television from hobbyists, education, and "because of fads devised by the cable television industry that [will] become fashionable and sweep the country."²¹² Like Smith, he compared the federal expenditure on highways in the previous ten years (\$70 billion) and called for a similar investment in "electronic highways," which "would work miracles."²¹³

By 1979, however, it was clear that the legal foundation for a federal mandate of interactive cable was lacking. There was no point in the FCC issuing a new set of guidelines without Congressional action. The Congress had begun consideration of changes to the Communications Act in 1976, but it was to take until 1984 for a set of changes to be agreed upon by both houses. For a time though, it looked as if competition between cable companies for franchises from local governments would be even more effective at bringing about interactive cable than even direct federal intervention.

²¹⁰ Englewood Cliffs, NJ: Prentice-Hall, 1978.

²¹¹ p. 169.

²¹² p. 170.

²¹³ p. 288.

C. QUBE and the Franchise Wars: Marketing Interactivity

Two elements contributed to the important strategic role played by interactive services in the period of intense competition for major urban franchises. First, price and performance improvements in cable hardware made interactive systems possible. Second, even if the federal government was not able to legally mandate interactivity, the concept proved quite popular among municipal franchising authorities who included it in their minimum requirements and in their evaluation of competing bids.

One company proved without question the political viability of interactivity. Warner Cable bid for and won the Columbus, Ohio franchise in part by promising a large channel capacity and two-way services. With that system online in 1977, Warner went from being one company among equals in the industry to being the premier cable operator. In 1980 it won 1.1 million of 1.6 million of the US homes that were up for bid, an unprecedented portion of the new business. Never had a single company so completely dominated competition for new franchises. As a leading industry analyst put it,

it is clear that the company's two-way interactive system has been an important ingredient in its share of victories being so high. While many competitors are bidding two-way interactive services, Warner appears to be benefiting from the fact that it is the only company with a real live model in Columbus.²¹⁴

Warner's success at hyping interactivity, however, was to bring both two-way cable and the company down in a short number of years.

During the "franchise wars," however, Warner and QUBE were highly regarded and highly publicized. With so much written about it ("as if it were

²¹⁴ DLJ, p. 19.

the second coming of Christ," according to one Columbus resident)²¹⁵ it is important to recall what it was. In its first generation QUBE subscribers were given a small five button keypad. With it subscribers could respond to the on-screen prompts to "touch now" to register their opinions. Although eventually upgraded in part to a fifteen button keypad, QUBE did not allow information access, electronic mail, real-time online conferencing, electronic transactions or any of the services that were to grow up around personal computer-based interactivity in the early 1980s. Hardware vendor Pioneer promised Warner that it would deliver a full alphanumeric keyboard in 1981 to give each QUBE subscriber the ability to send and receive electronic text and navigate through an online service, but this upgrading never took place.

As Warner built systems in Cincinnati, Pittsburgh, Houston, Dallas, Milwaukee, and St. Louis these other cities were brought into a "QUBE Network." But in actual operation QUBE was plagued with problems. Programming on the interactive channel was only promoted on that channel and nowhere else. The few interactive shows that were produced by the 37 member "QUBE Network Staff" were very difficult to produce and continually interrupted by technical problems. Interactive cablecasting was conducted from 4-5 and 7:30 to 8 each weeknight but the "enormous problems with system reliability" led to scrambling on the air. Results of polling such as 450% agreement with a statement were not uncommon, according to a former employee, nor was a break in the satellite linkage between the Columbus studio and the headend at any of the QUBE cities. This eliminated that city's subscribers from participation

²¹⁵ Margaret Yao, "Two-Way Cable TV Disappoints Viewers in Columbus, Ohio, as Programming Lags," Wall Street Journal September 30, 1981, p. 31.

in the program.²¹⁶

The head of programming for QUBE acknowledged those faults.

We failed to develop programs forms which would make the passive television audience into active two-way participants because we patterned the programs after existing television. We did not create programming indigenous to the two-way system.²¹⁷

In January 1984 Warner closed down QUBE. Whether or not it was a failure is an open question. Despite the assertion by Hollander and others that QUBE's interactivity was merely to please the franchising authority, three quarters of subscribers to basic cable in Warner's cities took QUBE. A Louis Harris survey in 1982 found 86% of subscribers satisfied with the service. Although it cost Warner \$20 million, QUBE's attention to and knowledge of audience desires led to the creation of The Movie Channel, Nickelodeon, and MTV. However, these successes came with the near death of the company. Warner once again led the industry, but this time by returning to the city councils they'd signed agreements with begging to be released from their obligations--especially interactive cable. So ironically QUBE's success as a franchising gimmick killed it. The \$20 million spent on QUBE led to more than 35 times that amount in debt the company took on to live up to the franchising commitments it had won. But the interactive experiment took the blame. "QUBE set back two-way services by at least fifteen years," complained former Warner executive Paul Beneteau with several years hindsight.²¹⁸

²¹⁶ interview with Lisa DeLegge, March 1984.

²¹⁷ quoted in Carol Davidge, "America's Talk-Back Television Experiment: QUBE," in Dutton, et al, op cit, p. 99.

²¹⁸ personal interview, June 1986.

D. Interactive Cable Liquidated

As a result of its success at winning franchises Warner attracted American Express, which bought half of Warner Cable in 1979 for \$175 million. The new company then took on \$700 million in debt as it went about actually building the systems it had agreed to build. Then in 1982 Warner Communication's subsidiary Atari had a disasterous year. Warner was unable to raise its dividend and its stock fell sharply. In January 1983 it hired former Transportation Secretary Drew Lewis, whose job it was to reverse the \$50 million in annual losses the company had incurred in the early 1980s. His cost-cutting did reduce debt from \$875 million to \$500 million and lowered debt-to-earnings ration from 20 to 4 times net operating income, but at the cost of selling most of the large urban systems, part of the company's interest in MTV, and other properties. And all interactive programming on QUBE was ended.²¹⁹ "We just promised too much," said Lewis to Dallas officials, "and now we find that to break even we can't live up to those promises."²²⁰

Even after its demise QUBE has been quite controversial. "Divide the expense of QUBE by the number of homes it won for Warner Amex in the franchise wars, and you'd have to conclude there isn't a company that wouldn't have paid for it gladly," said one cable industry analyst. Yet one of the most detailed investigator of QUBE's history rejects this interpretation of QUBE as a franchising ploy. According to Carol Davidge,

²¹⁹ figures are from Carol Davidge, op cit.

²²⁰ Sandra Salmans, "Cable Operator's Take a Bruising," New York Times March 4, 1984, Business Section p. 1.

Warner has often been accused of establishing QUBE to win the franchise wars. This was not the case, inasmuch as the funding for QUBE began long before the industry was optimistic about city franchises.²²¹

Despite this dissent, an overwhelming number of observers find in QUBE exactly this strategy. As outlined in section II above, most observers view the commitment to interactive cable as an epiphenomenon of the competition for franchise bidding.

Another interpretation of the industry's behavior over this period also appears to have some validity. In 1979 and 1980 the industry stumbled upon a previously unknown phenomenon: people would pay for more than one pay television channel at the same time. In 1979, fewer than 50 markets offered more than one pay channel. That number had multiplied by eight in just a year, leading to a 50% gain in pay cable units. As the new systems came online energy and channel capacity were given to these efforts with genuine success. Between 1979 and 1984 the fastest growing element of cable industry revenues were individually-priced premium television services, growing on average 152% annually compared with 134% annually for all revenues.²²²

Thus not only were the high-tech systems no longer necessary because the franchising wars were ending, but the industry did not see in them the source of rapidly expanding revenues the pay cable services offered. From Warner's experience the industry learned that interactivity was a high risk strategy to follow, and one that only worked for a short period of time, and not very well at that. As Davidge observes, "the cable industry as a whole was uncomfort-

²²¹ Davidge in Dutton, et al, op cit, p. 85.

²²² NTIA Telecom 2000: Charting the Course for a New Century (Washington, DC: National Telecommunications and Information Administration, October 1988), p. 543.

able with the QUBE experiments and [was] almost gleeful at the demise of its interactive programs." Interactivity simply did not represent the quickest financial reward. If it did harbor secret future revenues they were very far in the future, or would never arrive.

Most importantly, however, the political needs of the industry had changed by 1984. The franchise wars were over and the "era of refranchising" had begun. A huge number of smaller city franchises were up for renewal in the mid-1980s because they had been written during the time in the late 1960s that the FCC maintained a moratorium on the importation of distant signals into the top 100 markets. The industry felt that it was in need of federal relief from having to compete for franchises in cities that already had incumbent operators. So in the early 1980s, with Reagan in office and the Senate under Republican control, it redoubled its efforts to secure legislation limiting the ability of cities to get operators to compete with one another at renewal time. This proved to be the final nail in the coffin of interactive cable.

E. The Era of Refranchising and the Cable Act of 1984

The Cable Communications Policy Act of 1984 neither mandates nor forbids cities to seek bi-directional cable systems in their franchise renewals. But the substantially altered relationship between franchising authorities and incumbent cable operators makes it unlikely that cities can "negotiate" for anything at all.

Cable industry negotiators sought to include language in the bill that would establish a presumption of renewal. The renewal provisions of the Act permit a franchising authority to consider only four factors: if the operator

has "substantially complied" with franchise provisions, whether the operator's service has been "reasonable" in light of community needs, whether the operator has the legal, financial, and technical abilities to provide the services it promises in its proposal, and if "the operator's proposal is reasonable to meet the future cable-related community needs and interests, taking into account the cost of meeting such needs and interests."²²³

The National League of Cities (NLC), which had negotiated on behalf of the nation's cities, interpreted this section as permitting "the exercise of considerable discretion as to whether to grant or deny renewal." However, one might conclude from the 100% renewal rate since the passage of the Act that the industry was more successful than the NLC at accomplishing its agenda. As National Cable Television Association President James Mooney characterized his victory, the new law would "sharply limit local government's ability to regulate cable."²²⁴ Municipal officials either viewed the bill as "a massive giveaway" or at best "a necessary compromise." At the same time as the Cable Act, cities also received exemption from anti-trust damages, which since 1982 had been a major source of difficulty. In that year the Supreme Court ruled that cable operators could sue a city for refusing to issue a franchise. Under the new regulatory regime operators could almost certainly presume renewal, but municipal officials couldn't be forced to pay treble damages, common in anti-trust suits. The companion bill "was designed to take away a weapon of the cable operators," acknowledged one industry attorney in

²²³ 98 Statute 2792, Public Law 98-549, Section 626 a.l.D.

²²⁴ "Congress Passes Cable Bill," CableVision October 22, 1984, p. 11.

the aftermath.²²⁵

It is not necessary to determine precisely who won in the passage of the Cable Act, but rather to observe that the ability of franchising authorities to deny renewal and force competition between operators for a new franchising period came to an end. And by December 1985, the first anniversary of the Cable Act, cable's involvement in interactive services had come to an end. The dream of a cable-based national broadband network no longer animated either Congress or the FCC, the power of municipalities to win this prize for their citizens was drastically undercut by the Act, and in the industry itself "two-way interactive" was a dirty term. With relief, the chief executive officers of both of the nation's largest cable companies could celebrate the death of interactive cable: "Cable makes a lot of sense," said John Malone of TCI, "but it has to be plain vanilla cable."²²⁶ Trygve Myhren of ATC concurred: "Two-way cable costs you more than it gets you, there's no question about that."²²⁷

In conclusion, the combination of fate, market pressures for quick returns and for increasing stock dividends, the rise of other revenue sources, and the lack of pressure from government or consumers led to the demise of interactive cable. In particular, the robust financial health followed by the highly publicized crash of one of the industry's most spectacular performers allowed industry decision-makers to conclude what they wanted to conclude from

²²⁵ J. L. Freeman, "Congress Grants Cities Immunity From Damages in Antitrust Cases," CableVision October 22, 1984, p. 29.

²²⁶ "The Suprising Success Stories in Cable Television," Businessweek November 12, 1984, p. 81.

²²⁷ New York Times March 4, 1984, op cit, p. F-22.

the beginning--that the future of cable lay in its taking the path of broadcast television. The accumulation of mass audiences for large national advertisers appeared as early as the 1960s to be cable's safest development path. And although it was resolutely opposed by everyone except the industry's financiers and decision-makers, their ability to make the industry's innovation decisions led them precisely down the path a coalition of government, scholars, and public interest groups had tried in vain to block.

Chapter V Summary, Conclusions, and Recommendations

Given the newness of cable to most of America, our predisposition to be optimistic toward the future in general and technology in particular, and the general social upheaval of the late 1960s it was perhaps inevitable that cable became a vehicle for social objectives broader than simply making money. As Kristin Beck has written, "the fervor, optimism, and social spirit of that period had pervaded the writings on cable television."²²⁸ In particular, bi-directional cable was heralded as being a major way social alienation was to be treated and political participation improved.

Despite the expenditure of about \$9 million by public interest groups and foundations to guide the development of cable from 1969 to 1972, and the virtual adoption of those recommendations by the Federal Communications Commission in 1972, those efforts failed. For a time cable might have developed interactive services in the effort to win major urban franchises from city councils, but the success of one company's efforts with this strategy brought both the company and the interactive service down. The industry was then as a whole able to go back to city councils and ask to be released from franchise obligations, now that it had been "proven" that interactive cable didn't work. Cable's decision-makers during this time period were genuinely frightened with being taken over by larger companies if they did not just continually increase earnings but also profitability--a very difficult thing to do given the industry's enormous capital commitments in the early years of a franchise.

However, there is nothing in this record that predetermined the outcome.

²²⁸ Cultivating the Wasteland, op cit, p. 187.

Several reasons for the failure of interactive cable appear to be contributing factors.

First, interactive cable failed because the wrong lessons were learned from the early experiences. The experience of Warner and QUBE were generalized to be lessons for all cities and all operators, when in fact they were highly specific to a particular context. The obituary written about QUBE and other early experiments, while widely acknowledged as true, doesn't appear to be correct. While Warner was highly compromised by the success of QUBE as a franchising gimmick and the industry as a whole saw its profits dip in the early 1980s, its basic health was never in doubt. Looked at historically, revenues continued their rapid climb throughout the 1980s, even in the face of huge capital commitments. As long as the public and the industry accept that the death of this "premature baby struggling for life"²²⁹ means that no other children can survive, no other qualified entities will even attempt to be parents.

Warner's special position in the history of cable-based interactivity bears some scrutiny. Were they clever or foolish? At first they appear to be victims of their own franchising success. They simply lacked the capacity to handle all that new business. However, some questions remain. Why didn't Warner the cable operator cooperate with Warner the owner of Atari, which was the leading home computer manufacturer? The conclusion that is easiest to reach is that the company did not want interactive cable to succeed as a real business, or that it was unwilling to invest the time and energy necessary to create this new business. Yet, Warner's QUBE experience led to the creation

²²⁹ Priscilla Mead, Council Member, Upper Arlington Ohio, quoted in Davidge, in Dutton et al, p. 98.

of MTV and Nickelodean, which are two of the industry's most important programming successes. Perhaps if Warner had been less successful at winning franchises it would have continued to develop interactivity on QUBE until it stumbled upon the right mix of hardware and programming. Unfortunately there is no way to know.

Second, QUBE was one particular implementation of interactivity and a quite limited one at that. The digital feedback or polling method only allowed users to respond to questions put to them by an on-screen image. That experience with severely limited interactivity was generalized into a commonly-accepted lesson that there was nothing of commercial value that used cable's bi-directional capacity. Because QUBE was not upgraded in time to a full alphanumeric keyboard, interactive cable and the microcomputer never met one another.

While QUBE was going online in 1977 the first microcomputers were just coming to the market. In 1979 Atari brought its first low cost microcomputers to market and the software packages that were to lead to a vast explosion in consumer demand for the computers were also introduced. In a decade the microcomputer achieved a rate of adoption more than five times faster than either the telephone or the automobile and might have provided the home terminal that QUBE never became.

However, interactive cable and the microcomputer essentially missed one another. The only commercial service designed for cable delivery to home computers, X*Press Information Service, is delivered via one-way cable due to lack of alternatives. Some amount of rudimentary selectivity is possible, but

no interaction of any kind is allowed.²³⁰ So, despite the massive increase in data communications revenues being captured by the telephone companies, cable is not participating in that activity.

Finally, cable and interactivity parted ways because cable operators found easier ways to make money. Cable companies have pursued vertical integration, buying up programming sources so they can earn production, distribution, and advertising revenues. Cable interests spent \$737 million in 1988 to produce their own original programming for basic cable networks, an increase of 16.7% over the previous year.²³¹ This is exactly the kind of industrial organization that the cable studies of the early 1970s warned against. Even the Office of Telecommunications Policy and President Nixon's Cabinet Advisory Group on Cable recommended a separation of cable's interest in programming and distribution. That is, however, precisely the path the industry has pursued.

The most obvious pattern in interactive cable development--the waves of boom and bust--appears to be caused by the change in regulatory dynamics in the five periods. The public interest lobby was most effective in the pre-1972 period and successfully captured the regulatory apparatus to validate its vision of cable's future. However, the multiple points of entry into the regulatory apparatus worked to the industry's favor in the second period. It could choose cases to pursue in the courts, and was helped especially by the fact that state-level utility regulators sought to overturn the 1972 rules.

²³⁰ David Lytel, "X*Press to Success or Obscurity?" Information Today March 1986, p. 9.

²³¹ Kristen Beck, "Basic Cable Goes Hollywood," Channels 1989 Field Guide, December 1988, p. 92.

In the third period intra-industry competition for franchises was the most powerful force acting to bring about interactivity. This would not have been possible, of course, without a regulatory framework that demanded local franchises. The commercial failure of a single company was the most important element in the fourth period, whether or not this was objectively generalizable to the entire industry or not. Finally, in the fifth period the restriction on the powers of local regulators as a result of the Cable Act and the end of interactivity are not coincidentally related. Without the ability to articulate the desire for interactivity through this vehicle the public interest lobby simply had no place left to go to push for interactive cable.

This analysis suggests that cable's unique regulatory structure had a great deal to do with the development of interactivity. Since as a recent National Telecommunications and Information Agency report puts it, "the local government's franchising authority over cable television is under attack,"²³² those who continue to seek interactivity through cable systems would do well to defend it. Without competition at the local level for franchises cable-based interactivity would have died with the striking down of the 1972 rules and never have been heard of again. As a direct result of the much-maligned regulatory regime for cable, however, interactivity stayed alive as a policy goal because it stayed alive in the public imagination.

To get an idea of what might have happened if cable had taken the road not chosen, it is worth asking: If Congress had given the FCC the proper authorization to mandate interactive cable in 1972, how might the industry be different in 1989? Certainly there is ample precedent for this kind of

²³² Telecom 2000: Charting the Course for a New Century (Washington, DC: US Department of Commerce, 1988), p. 558.

Congressional action, especially the 1962 legislation mandating that all new television sets contain the hardware necessary to receive UHF signals. But in the case of interactivity the legislative mandate was lacking. What might have been?

First, the current frontier in cable programming is impulse pay-per-view, similar to those offered by most hotels in which the user may sample a program and then be charged after watching for a certain period of time. With two-way systems these services are trivial to implement, but without them impulse pay-per-view is very difficult. If consumers will take multiple pay units there is the possibility that they will also use multiple impulse pay channels. But this is an open question now, as virtually no one in the industry has the technical means at their disposal to test this hypothesis.

Second, there could have been by now genuine competition between cable companies for local loop voice traffic. These can either be the "last-mile" connections for long distance carriers or actual local telephone services. As former FCC commissioner Kenneth Cox put it, "If a real broadband network is ever constructed, its operators could virtually provide conventional telephone service for nothing."²³³ But needless to say this is not in the interests of the former Bell companies. Despite this, the federal government has opened the door for cable to pursue this business. Cable's reluctance to be enticed into areas outside of its traditional activities, however, has hardened into a resolve to stay in the television business because "everyone knows" there is no money to be made in bi-directional cable services.

²³³ quoted in Smith, The Wired Nation, op cit, p. 65.

Third, in terms of business services, two-way cable might have provided some genuine competition with telephone networks for high speed data and voice links. Very few cable operators are pursuing this business however, as almost none of them have two-way systems. On the level of consumer information services, cable had the ability to build integrated systems with the right home terminals and headend equipment and bundle the services together with the hardware costs, as the telephone companies are prohibited from doing. This might have been done in distinct local markets years before the French experiments in online services, which now generate more than a billion dollars annually, ever got started.

Even without having been able to make the 1972 Rules stick, the Federal government has been giving cable every opportunity to develop interactivity, but to no avail. The telephone companies have been constrained by the FCC and the courts from getting into the provision of interactive services until quite recently. The 1982 Consent Decree, for example, that settled the government's anti-trust case with AT&T left the door wide open for cable. AT&T agreed not to engage in "electronic publishing" over its own network until 1989. Thus from 1984 to 1989 the former Bell operating companies were specifically precluded from developing electronic publishing, and yet cable had already "learned" that there was no future in interactivity.

The FCC has also jumped in to entice cable operators to pursue interactivity and non-video services. In August 1985 the Commission successfully ruled that Cox Cable did not need to get a "certificate of public convenience and necessity" from the State of Nebraska before offering data communications services. Despite the fact that these services were entirely intrastate in nature, the Commission found that

any state regulation of institutional services offered by cable companies that act as a de facto or de jure barrier to entry into the interstate communications market or to the provision of interstate communications must be preempted.²³⁴

The decision allowed MCI long distance customers to connect with the national network via Cox's local cable system, but Cox discontinued the service soon after winning the decision because it did not show a profit.

Telephone industry executives are confident that cable will not be able to move into services that require bi-directional plant because

cable may be the strongest competitor to the local distribution network in the long run...[but] less than 2% of existing cable systems have two-way capacity...²³⁵

Thus national policy is highly favorable toward creating cable-based competition for traditional local telephone exchange services similar to the competition that has been fostered between alternative carriers of interexchange services. Yet the opportunity finds the cable companies looking the other way, toward broadcasting instead of telephony. Cable's data and interactive revenues represent less than a half of one percent of the industry's revenues. "Sophisticated data and voice services," observes an industry newspaper, "are considered a 'blue sky' menu that most operators have not even considered."²³⁶

It is difficult to find that the public interest has been served by this regulatory failure. But in evaluating this record, different people find different lessons. The FCC's Cable Television Bureau Chief Steve Ross admits with chagrin, "we were a total flop." Yet to industry leaders such as investment banker John Suhler it was two-way cable that was the flop.

²³⁴ Telephony, November 4, 1985.

²³⁵ Telephony April 20, 1981.

²³⁶ MIS Week, August 14, 1985, p. 1.

Cable hasn't done anything about information services or any of that stuff because there is no demand, no demonstrated need...If anyone could prove a market need then they'd scramble for the business.

Ultimately it is impossible to determine who is "right" without knowing something about the future. Are there consumer-oriented information services that would attract a mass market audience? Is there a way to make videotex pay? This question--the successor to the question of two-way cable's viability ten years ago--is now at the heart of yet another new wave of enthusiasm for interactive services.

The new wave of enthusiasm is built around three things--the adoption of fiber optics by cable operators, potential inter-industry competition with telephone companies for the delivery of cable's traditional product, and a post-Cable Act reaction on the part of local and federal regulators to see cable controlled through this competition as a substitute for direct reregulation.

Fiber optics by itself has attracted considerable attention in the cable industry. Its enormous carrying capacity had been ignored by the industry until the mid-1980s because it had been deemed too expensive. But operators are now pursuing fiber optics with a great deal of enthusiasm because it can lower operating costs.²³⁷ Their configuration of fiber-based systems, however, make them poorly positioned to provide interactivity. They are still

²³⁷ Fred Dawson, "Cable Sees a Shortcut the Telcos Can't Follow," Cablevision August 15, 1988, p. 39; Fred Dawson, "GI Makes Major Moves into Fiber," Cablevision September 12, 1988, p. 12; Fred Dawson, "The Next Step in Fiber," Cablevision October 10, 1988; Fred Dawson, "TCI Leaps Into Fiber," Cablevision December 5, 1988, p. 44; James Chiddix, "The Fiber Opportunity: Unparalleled Since the Advent of Satellite Services," Cablevision April 24, 1989; Fred Dawson, "Fiber Momentum Builds with Several New Projects," Cablevision June 5, 1989, pp. 8-12.

systems optimized for the one-way delivery of video, and it is for these reasons that the industry is deploying fiber. For the most part they are positioning themselves for high-definition television, not interactivity.

And yet even interactivity itself is making a minor comeback. Firms that are seeking to provide interactive entertainment are leading the way.²³⁸ However, the new wave of interactive services either ignore cable as a distribution medium or require unique hardware delivered by cable operators to subscribers. Cable's ability to provide user selected video music clips and home shopping services are also being pursued. Yet despite Cablevision's front page announcement of "The Second Coming of Interactive TV" the premier service featured in the article--JC Penny's TeleAction service--was dead in six months.²³⁹ Notably, virtually none of the services currently trying to gain a foothold expect operators to build them a return path. They use the telephone network or an FM radio frequency.

The telephone company's potential involvement either as part of an integrated system or as a provider of video programming thus is heavily linked to this new wave of enthusiasm for interactivity. Although the potential for telephone company involvement has always been there theoretically, it was only recently a live issue again, after an eighteen year silence. The FCC has opened an inquiry into a proposed elimination of the cable/telephone cross ownership restrictions which would allow telephone companies to build and operate cable systems in their own areas, which has been in place since 1970.

²³⁸ Linda Haugstead, "Firm Aims to Develop Interactive TV Games, Multi-channel News February 15, 1988, p. 1.

²³⁹ Craig Kuhl, Simon Applebaum, Wayne Friedman, "The Second Coming of Interactive TV," Cablevision October 24, 1988, pp. 28-46; Joe Terranova, "J.C. Penny Checks Out of Telaction," Multichannel News April 3, 1989, p. 1.

The installation of fiber and the elimination of the cross ownership restrictions are closely related. The action is represented as a means by which telephone companies will be able to support the capital investment necessary to build integrated digital networks that allow video, voice, and data to be carried on the same pipeline. This would allow them to deliver multi-media products such as are now being produced for personal computers that can read CD-ROM disks.²⁴⁰

The justification of the telephone company's involvement in cable as a means of getting fiber to American households is an echo of the blue sky literature of the early years of cable. For example, a citizen's lobby called Opt In-America believes "OPTIC Fiber can bring the INFORMATION Age to Every Home in America." Fiber--either the cable industry's implementation of it or the telephone company's--will reduce illiteracy, improve education, eliminate gridlock, make America more competitive, and end America's "cultural stagnation."²⁴¹

The telephone company's ability to bring this technological nirvana to America's households is their strongest arguments for being freed of the 1982 Consent Decree restrictions keeping them out of the electronic publishing

²⁴⁰ Michael Rogers, "Here Comes Hypermedia," Newsweek October 3, 1988, pp. 44-45; Stuart Johnson, "IBM, Intel Codeveloping DVI Multimedia Products," InfoWorld April 3, 1989, p. 1; "Laurie Flynn, "Macworld Expo Focuses Attention on Multimedia," InfoWorld August 7, 1989, p. 1; Rachel Parker, "Macworld: Multimedia Gets Down to Business," InfoWorld August 14, 1989, p. 1.

²⁴¹ Opt-In America White Paper: "The Information Age is Calling: Will Cable Get the Message?" PO Box 18958, Washington, DC 20036; Gary Slutsker, "Goodbye Cable TV, Hello Fiber Optics," Forbes September 19, 1988, pp. 174-179.

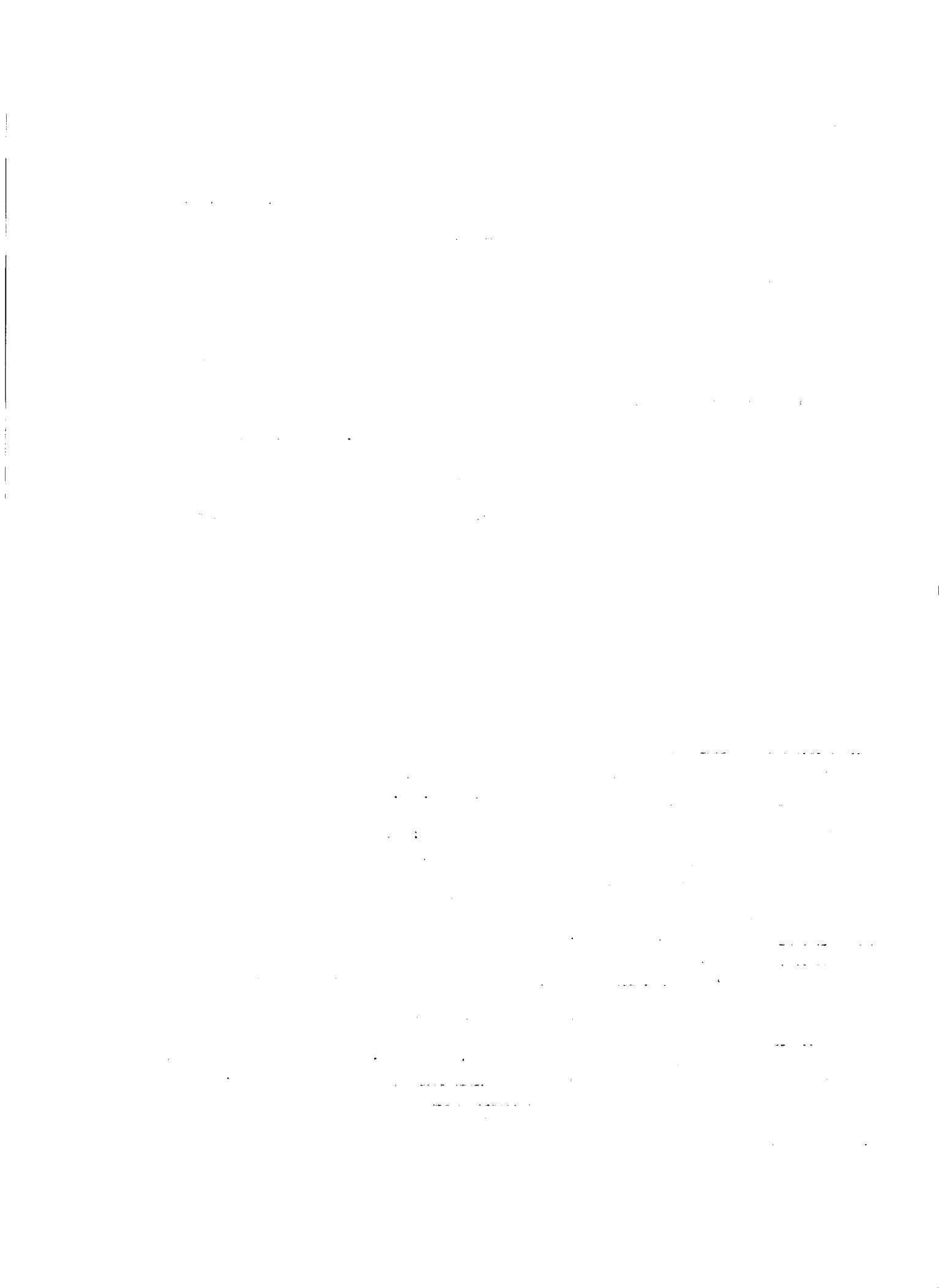
business²⁴² and for being generally allowed to own and operate cable systems.²⁴³ To slowly bore away at the restrictions keeping them out of this lucrative business--even if they never develop services more advanced than the one-way delivery of video entertainment--the telephone companies have been pursuing a strategy of building demonstration projects on a small scale.²⁴⁴

Not only have the telephone companies argued that they be allowed to compete with cable companies in the interest of the development of advanced services, a number of people in the regulatory community have sided with them with the hopes of providing some competition for cable. FCC Commissioners and Members of Congress supporting the telephone company side have argued that competition would bring about improved service and lower rates to con-

²⁴² Jeannine Aversa, "White House Moves to Lift Restrictions on Baby Bells," Multichannel News December 21, 1987, p. 1.

²⁴³ Tom Valcovic, "The Rewiring of America: Scenarios for Local-Loop Distribution," Telecommunications January 1988, pp. 30-36; Lisa Stein, "Debating Telco Entry," CableVision December 19, 1988, pp. 12-13; Jeannine Aversa, "FCC Hears Pros, Cons of Telcos in Cable," Multichannel News December 26, 1988, p. 20-21; Lisa Stern, "Cable/Telco Debate Appears Stalemated," Cablevision January 16, 1989, p. 42-43; Lisa Stein, "Quello Rocks Telcos," Cablevision January 30, 1989, pp. 22-24; Rachel Thompson, "Cable Goes Nose-to-Nose with Telcos," Multichannel News August 28, 1989, p. 53, 59.

²⁴⁴ Fred Dawson, "Number of Fiber-to-Home Projects by Telcos Double," Cablevision February 15, 1988, p. 12; Jeannine Aversa, "Telco Wins Okay for FO Cable System," Multichannel News January 9, 1989, p. 3; "Jeannine Aversa, "FCC Approves GTE's Cerritos Project," Multichannel News May 1, 1989, p. 1; Lisa Stein, "NCTA May Appeal Cerritos," Cablevision May 8, 1989, pp. 18-19; Laurence Swasey, "Digital Fiber-to-Home Passes Test in FL Community," Multi-channel News July 24, 1989, p. 34.



sumers.²⁴⁵

Will these activities lead to a new 'blue sky' period for cable? Some observers believe so. In his review of urban communication policy Seymour Mandlebaum notes that

grand hopes have often been dashed but technological innovations and waves of new recruits who do not remember the first dream have constantly refreshed enthusiasm for the promise of urban broadband networks.²⁴⁶

Kenneth Laudon's reassessment of his earlier predictions also leads to the promise of a renewed enthusiasm for interactivity via cable. Although the earlier optimistic view of cable's development was not realistic, the vision it contained outlines the future of the medium--although one that will not come nearly as fast as originally hoped for, says Laudon.

The real future for cable is as an alternative full service interactive telecommunications network capable of replacing the telephone system which is approaching, in concept, one hundred years in age. It's about time we had a telecommunications network which is economical, high-capacity, fully networked and interactive, and capable of handling video, voice, and digital communications. Without such a common switched network in the United States, the prospect is that we'll be setting up hundreds of thousands of local area networks and office systems unconnected to one another when it would be so much more economical and rational to develop a highly-integrated, interactive cable network system. Unfortunately, this view of the real potential of cable television is a long, long time in the future.²⁴⁷

²⁴⁵ Jeannine Aversa, "Bill to Lift Restrictions on BOCs Expected Soon," Multichannel News February 29, 1988, p. 18; Jeannine Aversa, "Cable Reregulation Heats Up," Multichannel News April 17, 1989, p. 1; Jeannine Aversa, "Congress Introduces Cable Legislation: Seeks Open Door for Telcos, Rate Regulation," Multichannel News May 22, 1989, p. 1; Jeannine Aversa, "FCC Nominees Favor Competition, Not Regulation," Multichannel News August 7, 1989, p. 17.

²⁴⁶ "Cities and Communication: The Limits of Community," Telecommunications Policy Volume 10 (1986), p. 138.

²⁴⁷ The Wired Society: Promise and Performance, paper delivered to Annenberg School of Communications Washington Program, July 12, 1984, p. 26.

He finds the current telephone network more than adequate for today's needs.

Despite its impressive financial performance and the best efforts of a huge coalition of government, academic, and public interest groups, cable has not lived up to the vision that saw it contributing to cultural pluralism or greater interaction between the elite and those whose role is to be citizens and consumers. As a result it may be the telephone industry that picks up this vision of "wired cities" and uses it as a wedge with which to enter what has been cable's traditional line of business. Ironically enough, it may be that the cable industry's best weapon against the groundswell of regulatory and popular support for telephone industry involvement in video and advanced interactive services would be to recapture the blue sky vision through a new wave of interactive experiments. Even with the diminution of the power of local franchising authorities there appear to be few reasons, after all, that the cycle of enthusiasm and disappointment for advanced communications services can't go on indefinitely.

Bibliography

- Abramson, Jeff, Christopher Arterton, Garry Orren. The Electronic Commonwealth. New York: Basic Books, 1988.
- "Anatomy of Cable Television Regulation." Broadcasting/Cablecasting Yearbook. 1984.
- Armstrong, Richard. The Next Hurrah: The Communications Revolution in American Politics. New York: William Morrow, 1988.
- Arterton, Christopher. Teledemocracy: Can Technology Protect Democracy? Beverley Hills, CA: Sage, 1987.
- Baer, W.S. "Telephone and Cable Companies: Rivals or Partners in Video Distribution?" Telecommunications Policy, Volume 8, Number 4 (December 1984).
- Interactive Television: Prospects for Two-Way Services on Cable. Report R-888-MF. Santa Monica, CA: Rand Corporation, 1971.
- Bagdikian, Ben. The Media Monopoly. Boston: Beacon Press, 1983.
- Bahm, A.H. Computocracy. Albuquerque, NM: World Books, 1985.
- Baldwin, T. and D. Stevens McVoy. Cable Communication. Englewood Cliffs, NJ: Prentice-Hall, 1983.
- Barber, Benjamin. Strong Democracy. Berkeley: University of California, 1984.
- Barnett, Harold and Edward Greenberg. "A Proposal for the Wired City." Washington University Law Quarterly, Volume I (Winter 1968).
- BCTV: Bibliography on Cable Television (1975-1983). San Francisco: Communications Library, 1985.
- Beck, Kristin. Cultivating the Wasteland: Can Cable Put the Vision Back in TV? New York: Council for the Arts, 1983.
- Beneteau, Paul. Former executive with Warner Cable. Personal interview, June 1986.
- Berner, Richard. Constraints on the Regulatory Process: A Case Study of Regulation of Cable Television. Cambridge, MA: Balinger, 1976.
- Bezold, Clement. Anticipatory Democracy. New York: Random House, 1978.
- Bingham, Richard. "The Wired City." Urban Affairs Quarterly Volume 2, Number 2 (December 1984).

1. The first step in the process of identifying a problem is to recognize that a problem exists. This is often done by comparing current performance with a desired state or goal. For example, a manager might notice that sales are declining or that customer satisfaction is low. Once a problem is identified, the next step is to define it more precisely. This involves determining the scope of the problem, its causes, and its effects. A clear definition of the problem is essential for developing an effective solution.

2. The second step is to analyze the problem. This involves gathering information about the problem and its context. This can be done through interviews, surveys, or data analysis. The goal is to understand the underlying causes of the problem and to identify any constraints or resources that may affect the solution. A thorough analysis is necessary to ensure that the solution addresses the root cause of the problem rather than just the symptoms.

3. The third step is to generate potential solutions. This involves brainstorming ideas and evaluating them against the problem's requirements. It is important to consider a wide range of options and to evaluate them based on their feasibility, effectiveness, and cost. The goal is to identify a solution that is both practical and effective. This step often involves collaboration and discussion with others who may have different perspectives on the problem.

4. The fourth step is to implement the chosen solution. This involves putting the solution into action and monitoring its progress. It is important to communicate the solution to all relevant parties and to ensure that they understand their roles in the implementation process. Regular monitoring and evaluation are necessary to ensure that the solution is working as intended and to make any necessary adjustments. Implementation is often the most challenging part of the process, as it requires coordination and resources.

5. The final step is to evaluate the results of the solution. This involves comparing the current performance with the desired state and determining whether the problem has been solved. If the problem has not been solved, the process may need to be repeated. Evaluation is essential to ensure that the solution is effective and to learn from the experience for future problems. It also helps to identify any long-term implications of the solution and to ensure that the organization is prepared to handle any future challenges.

- Botein, Michael. "Cable Television Refranchising and the Anti-Trust Laws: a Preliminary Analysis of Substantive Issues," Federal Communications Law Journal. Volume 36, Number 3 (December 1984).
- "Cable TV in the U.S.A.: The Legal and Regulatory Environment." Journal of Media Law and Practice Volume 3, Number 3 (December 1982).
- Branscomb, A.W. "Electronic Publishing: A Global View of Videotex." Federal Communications Law Journal, Volume 36, Number 2 (September 1984).
- "The Cable Fable: Will it Coome True?" Journal of Communication Volume 25 (1975).
- Broadcasting/Cablecasting Yearbook. 1982, 1983, 1984, 1985, 1986, 1987.
- Brock, Gerald. The Telecommunications Industry: The Dynamics of Market Structure. Cambridge, MA: Harvard University Press, 1981.
- Cable Television: A Comprehensive Bibliography. New York: Plenum, 1978.
- Capuzzi, Celia. "A Rosy Future but Proceed with Caution." Channels 1988 Field Guide.
- Champlain, John. Department of Political Science, Ohio State University and former consultant to QUBE. Personal interview, November 1989.
- Compaigne, B.M. Understanding New Media: Trends and Issues in Electronic Distribution of Information. Cambridge, MA: Ballinger, 1984.
- "Congress Passes Cable Bill." Cablevision October 22, 1984.
- Dawson, Fred. "Cable Sees a Shortcut the Telcos Can't Follow." Cablevision August 15, 1988.
- DeLegge, Lisa. Former QUBE Network Programming Staff employee. Personal interview, March 1984.
- Dizard, Wilson. The Coming Information Age. New York: Longman, 1982.
- Donaldson, Lufkin, and Jenrette. The Cable Television Industry. New York, 1982.
- Dutton, William, and Thierry Vedel. "The Comparative Politics of Cable Television: A British, French, and U.S. Ecology of Games." Paper presented at 1989 Annual Meeting of the International Communication Association.
- Dutton, William, Jay Blumler, Kenneth Kraemer. Wired Cities: Shaping the Future of Communications. Boston: G.K. Hall, 1987.

1. The first step in the process of identifying a problem is to recognize that a problem exists. This is often done by comparing current performance with a desired state or goal. For example, a manager might notice that sales are declining or that customer satisfaction is low. Once a problem is identified, the next step is to define it more precisely. This involves determining the scope of the problem, its causes, and its effects. A clear definition of the problem is essential for developing an effective solution.

2. The second step is to gather information about the problem. This can be done through various methods, such as interviews, surveys, and data analysis. The goal is to understand the underlying causes of the problem and to identify any constraints or resources that may affect the solution. For example, a manager might interview employees to learn about their experiences with a particular process or analyze sales data to identify trends and patterns.

3. The third step is to generate potential solutions. This is often done through brainstorming or other creative techniques. The goal is to come up with a range of possible solutions that could address the problem. It is important to consider both short-term and long-term solutions, as well as solutions that are feasible and sustainable. For example, a manager might brainstorm ideas for improving customer service, such as offering more personalized service or providing better training for employees.

4. The fourth step is to evaluate the potential solutions. This involves comparing the solutions against the criteria that were identified in the previous step. The goal is to determine which solution is the most effective and feasible. This can be done through a cost-benefit analysis or other evaluation techniques. For example, a manager might compare the costs and benefits of different solutions for improving customer service, such as hiring more staff or investing in new technology.

5. The fifth and final step is to implement the chosen solution. This involves putting the solution into action and monitoring its progress. It is important to communicate the solution to all relevant parties and to provide them with the necessary resources and support. Additionally, it is important to track the results of the solution and to make adjustments as needed. For example, a manager might implement a new customer service process and then monitor customer satisfaction levels to see if the process is having the desired effect.

- Dutton, William, Herbert Dordick, Amy Phillips. "Perspectives on National Cable Policy: Focusing the Issues." Telematics and Informatics Volume 1, Number 2 (1984).
- Elstain, Jean B. "Democracy and the QUBE Tube." The Nation August 7, 1982.
- Enzensberger, Hans Magnus. "Constituents of a Theory of the Media." New Left Review, Volume 64 (November-December 1970).
- Etzioni, Amitai, et al. "Participating Technology: the MINERVA Communications Tree." Journal of Communications, Volume 25 (Spring 1975).
- "MINERVA: A Study in Participatory Technology." Columbia University Technology and Society Program, Working Paper I (February 1972).
- Fogarty, J. and M. Spielholz. "FCC Cable Jurisdiction: From Zero to Plenary in Twenty-Five Years," Federal Communications Law Journal Volume 37 Number 1 (January 1985).
- Freeman, J.L. "Congress Grants Cities Immunity From Damages in Antitrust Cases." Cablevision October 22, 1984.
- Garay, Ronald. Cable Television: A Reference Guide to Information. New York: Greenwood Press, 1988.
- Gayeski, Diane and David Williams. Interactive Media. Englewood Cliffs, NJ: Prentice-Hall, 1985.
- Gerbner, George, Larry Gross, William Melody. Communications Technology and Social Policy: Understanding the New 'Cultural Revolution.' New York: Wiley, 1973.
- Gibbons, M., et al. "Technology and Policy in Cable Television Development in the U.K." Telecommunications Policy Volume 8, Number 3 (September 1984).
- Gitlin, Todd. "New Video Technology: Pluralism or Banality?" democracy, Volume 1, Number 4 (October 1981).
- Goldhaber, Michael. "Microelectronic Networks: A New Workers' Culture in Formation?" Critical Communications Review Volume 1 (1983).
- Goldmark, Peter. "Communication and Community." Communication A Scientific American Book. San Francisco: W.H. Freeman, 1972.
- Gonzalez, Ibarra. "Utilization Patterns of Hi-OVIS Interactive Broadcasting System in Higoshi Ikoma, Japan." University of Southern California, unpublished PhD dissertation, August 1986.
- Grant, William. Cable Television. Reston, VA: Reston Publishing, 1983.
- Hadart, M. "Empire Building, Brick by Brick." Cablevision February 13, 1984.

- Hanet, R.S. "Getting the Message: Statutory Approaches to Electronic Information Delivery and the Duty of Carriage." Federal Communications Law Journal, Volume 37, Number 2 (April 1985).
- Haustead, Linda. "Firm Aims to Develop Interactive TV Games." Multichannel News February 15, 1988.
- Hazlett, Thomas. "The Policy of Exclusive Franchising in Cable Television." Journal of Broadcasting and Electronic Media, Volume 31, Number 1 (Winter 1987).
- Hollander, Richard. Video Democracy. Mt Airy, MD: Lomond Publications, 1985.
- Hollins, Timothy. Beyond Broadcasting: Into the Cable Age. London: BFI Publishing, 1984.
- Hollowell, Mary Louise. The Cable/Broadband Communications Book Volumes 1,2,3. Washington, DC: Communications Press, 1977, 1980, 1983.
- Interactive Cable Television: Final Report. Minneapolis, MN: Active Learning Systems, 1985.
- Irwin, Manley. The Telecommunications Industry: Integration v. Competition. New York: Praeger, 1971.
- Johnson, Leland. The Future of Cable Television: Some Problems of Federal Regulation. Report RM-6199-FF. Santa Monica, CA: Rand Corporation, 1970.
- Johnson, Tom, Clark McCauley, Omar Rood. "The Next Democracy: Technology in the Service of Self-Government." World Future Society Bulletin November-December 1977.
- The Next Democracy: Public Participation and the Government of the United States. unpublished manuscript, 1975.
- Jones, Alex. "And Now, the Media Mega-Merger." The New York Times, March 24, 1985.
- Jun, Suk-Ho. "Public Uses of Interactive Cable Television," University of Southern California, unpublished PhD dissertation, December 1986.
- Kay, Peg. "Policy Issues in Interactive Cable Television." Journal of Communication Volume 28, Number 2 (Spring 1978).
- Knight, Fred, Harold Horn, Nancy Jesuale. Telecommunications for Local Government. Washington, DC: International City Management Association, 1982.
- Knox, W.O. "Cable Franchising and the First Amendment: Does the Franchising Process Contravene First Amendment Rights?" Federal Communications Law Journal, Volume 36, Number 3 (December 1984).

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in financial reporting and compliance with regulatory requirements. The text notes that incomplete or inconsistent records can lead to significant legal and financial consequences for the organization.

2. The second section focuses on the role of internal controls in preventing fraud and errors. It outlines various control mechanisms, such as segregation of duties, authorization procedures, and regular audits, which are designed to minimize the risk of misstatements and ensure the integrity of the data. The document stresses that a robust internal control system is a key component of an organization's risk management strategy.

3. The third part of the document addresses the challenges associated with data security and privacy. In an era of increasing cyber threats, it is crucial for organizations to implement strong security protocols to protect sensitive information. This includes using encryption, access controls, and secure communication channels. Additionally, the document highlights the importance of adhering to data protection regulations, such as the GDPR, to maintain trust with customers and partners.

4. The final section discusses the impact of technology on business operations and data management. It notes that while digital tools offer significant advantages in terms of efficiency and scalability, they also introduce new risks and complexities. Organizations must invest in training and resources to ensure that their workforce is equipped to handle these challenges effectively. The document concludes by emphasizing the need for a proactive and continuous approach to managing data and technology risks.

- Kraus, S., G. Lang, D. Davis, K. Lang. "Critical Events Analysis." S.H. Chaffee (ed). Political Communication. London: Sage, 1975.
- Land, Herman W. Television and the Wired City: A Study of the Implications of a Change in the Mode of Transmission. Washington, DC: National Association of Broadcasters, 1968.
- Laudon, Kenneth. "The Wired Society: Promise and Performance." Paper delivered to Annenberg School of Communications Washington Program, July 12, 1984.
- Communications Technology and Democratic Participation. New York: Praeger, 1977.
- Lehman-Wilzig, Sam. "Political Participation in the Post-Industrial Age," World Future Society Bulletin July/August 1983.
- "Teledemocracy from the Top," Telecommunications Policy March 1983.
- LeDuc, Don. Beyond Broadcasting: Patterns in Policy and Law. White Plains, NY: Longman, 1987.
- Cable TV and the FCC. Philadelphia: Temple University Press, 1973.
- Learner, M.D. "The FCC and Interactive Cable Technology: The Case for Minimal Regulation." Harvard Law Review Volume 97, Number 2 (December 1983).
- Lloyd, F.W. "Cable Television's Emerging Two-Way Services: A Dilemma for Federal and State Regulators." Vanderbilt Law Review, Volume 36, Number 4 (May, 1983).
- Lytel, David. "X*Press to Success or Obscurity?" Information Today March 1986.
- Malbin, Michael. "Teledemocracy and its Discontents." Public Opinion, June/July 1982.
- Mandlebaum, Seymour. "Cities and the Limits of Community." Telecommunications Policy Volume 10 (1986).
- Mansell, John. Senior Analyst, Kagan Associates. Personal interview, August 1988.
- Martin, James. The Wired Society. Englewood Cliffs, NJ: Prentice-Hall, 1978.
- Mason, William. "Urban Cable Systems." MITRE Corporation Report M72-57 (May 1972).
- McQuail, Denis. "Research on New Communication Technologies: Barren Terrain or Promising Arena?" in William Dutton, et al. Wired Cities. Boston: G.K. Hall, 1987.

- Miles, Matthew and Michael Huberman. Qualitative Data Analysis. Beverly Hills, CA: Sage, 1984.
- Moss, Mitchell L. and Robert Warren. "Public Policy and Community-Oriented Uses of Cable Television." Urban Affairs Quarterly, Volume 2, Number 2 (December 1984).
- Naisbitt, John. Megatrends. New York: Warner, 1982.
- National Telecommunications and Information Administration. Telecom 2000: Charting the Course for a New Century. Washington, DC: US Department of Commerce, 1988.
- The Network Project. Notebook Number 8: Cable Television--The End of a Dream. New York: Summer 1974.
- Notebook Number 5: Cable Television. New York: June 1973.
- Newman, Joseph. Wiring the World: The Explosion in Communications. Washington, DC: US News and World Report, 1971.
- Noam, Eli. "Private Sector Monopolies: The Case of Cable Television Franchises." Marc Holzer and Stuart Nagel (eds), Productivity and Public Policy. Beverly Hills, CA: Sage, 1984.
- "Competitive Entry into Local Cable Transmission." Vincent Mosco (ed) Policy Research in Telecommunications. Norwood, NJ: Ablex, 1983.
- "The Political Economy of Cable Television Regulation." Oscar Gandy, Paul Espinosa, and Janusz Ordover (eds). Proceedings from the Tenth Annual Telecommunications Policy Research Conference. Norwood, NJ: Ablex, 1983.
- "Local Distribution Monopolies in Cable Television and Telephone Services: The Scope for Competition." Eli Noam (ed.) Telecommunications Regulation Today and Tomorrow. New York: Harcourt Brace Jovanovich, 1983.
- Orton, Barry. "Phony Polls: The Pollster's Nemesis." Public Opinion, June/July 1982.
- Parsons, Patrick. "Defining Cable Television: Structuration and Public Policy," Journal of Communication Volume 39 Number 2 (Spring 1989).
- Pepper, Robert. "Telecommunications and Telematics Policy in the United States: Cable Television and the Realities of Competition." Paper presented at the Forum International Sur Les Politiques Publiques des Nouvelles Technologies de la Communication, organized by Le Centre d'Etude de la Vie Politique Francaise Contemporaine, Fondation Nationale des Sciences Politiques, Paris, May 1984.

- Petracca, Mark. "From Bells and Whistles to Nuts and Bolts: The Cable Communications Act of 1984." Paper delivered at 1985 Annual Meeting of the American Political Science Association.
- "The Politics and Processes of Issue Translation: The Regulation and Deregulation of Cable Television." Paper delivered at 1985 Annual Meeting of the Western Political Science Association.
- Phillips, Mary Alice Mayer. CATV: A History of Community Antennae Television. Evanston, IL: Northwestern University Press, 1972.
- Pool, Ithiel de Sola. Technologies of Freedom. Cambridge, MA: Harvard University Press, 1983.
- Rice, David. "Substantive Issues in Cable Television Franchising." Journal of Media Law and Practice (London), Volume 4, Number 1 (May 1983).
- Rice, Jean (ed). Cable Television Renewals and Refranchising. Washington, DC: Communications Press, 1983.
- Rice, Ronald. The New Media: Communications, Research, and Technology. Beverly Hills, CA: Sage, 1984.
- Ricks, J.E., R.E. Wiley (eds). The Cable Communications Policy Act of 1984. New York: Harcourt, Brace, Jovanovich, 1985.
- Rivkin, Steven. A New Guide to Federal Cable Television Regulations. Cambridge, MA: MIT Press, 1978.
- Rogers, Everett. Communications Technology: The New Media in Society. New York: The Free Press, 1986.
- Roman, James W. Cablemania: The Cable Television Sourcebook. Englewood Cliffs, NJ: Prentice-Hall, 1983.
- Ross, Steve. Chief, Cable Television Bureau, Federal Communications Commission. Personal interview, November 1987.
- Rostow, Eugene, et al. President's Task Force on Communications Policy Final Report. Washington, DC: Government Printing Office, 1969.
- Sackman, Harold. Mass Information Utilities and Social Excellence. Princeton, NJ: Auerbach Publishers, 1971.
- Salmans, Sandra. "Cable Operators Take a Bruising." The New York Times, March 4, 1985.
- Seiden, Martin. Cable Television U.S.A. New York: Praeger, 1972.
- Shafer, Edward. "An Assessment of the Role of Federal Regulation in the Development of the Cable Television Industry." George Washington University, unpublished PhD dissertation, 1980.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in financial reporting and auditing. The text notes that incomplete or inconsistent records can lead to significant errors and potential legal consequences.

2. The second section addresses the challenges associated with data collection and analysis. It highlights the need for standardized procedures and the use of reliable data sources. The document suggests that organizations should invest in robust data management systems to ensure the integrity and accuracy of their information. Additionally, it stresses the importance of regular data audits to identify and correct any discrepancies.

3. The third part of the document focuses on the role of technology in modern business operations. It discusses how digital tools and automation can streamline processes, reduce manual errors, and improve overall efficiency. The text mentions that while technology offers many benefits, it also requires careful implementation and ongoing training for staff to maximize its effectiveness. Security and data privacy are also identified as key concerns when adopting new technologies.

4. The final section provides a summary of the key findings and recommendations. It reiterates the importance of a proactive approach to data management and the need for continuous improvement. The document concludes by encouraging organizations to embrace a culture of transparency and data-driven decision-making to achieve long-term success and compliance with regulatory requirements.

- Singleton, Loy. Telecommunications in the Information Age. Cambridge, MA: Ballinger Publishing, 1983.
- Sloan Commission, On the Cable: The Television of Abundance. New York: McGraw Hill, 1971.
- Smith, Ralph Lee. The Wired Nation. New York: Harper and Row, 1972.
- Sprague, Richard. Information Utilities. Englewood Cliffs, NJ: Prentice-Hall, 1969.
- Stiegelbauer, S., M. Goldstein, and L. Huling. "Through the Eye of the Beholder: On the Use of Qualitative Methods in Data Analysis," Qualitative and Quantitative Procedures for Studying Interventions Influencing the Outcomes of School Improvement (R&D Report 3140). Austin: R&D Center for Teacher Education, University of Texas.
- Streeter, Thomas. "The Cable Fable Revisited: Discourse, Policy, and the Making of Cable Television." Critical Studies in Mass Communication Volume 4 (1987).
- Suhler, John. Partner, Veronis, Suhler and Associates. Personal interview, August 1988.
- "The Surprising Success Stories in Cable Television." Businessweek November 12, 1984.
- Taub, Stephen. "The Attractions of Cable." Financial World October 2, 1985.
- United States Cabinet Committee on Cable Communications. Report to the President. Washington, DC: Government Printing Office, 1974
- Veith, Richard. Talk-Back TV: Two-Way Cable Television. Blue Ridge Summit, PA: TAB Books, 1976.
- Veljanovski, C. Choice by Cable: The Economics of a New Era in Television. London: Institute of Economic Affairs, 1983.
- Walker, G.M. "String the Wired City: Two-Way TV descends from Blue Sky to Real World." Electronics, September 1971.
- Webb, Kent. The Economics of Cable Television. Lexington, MA: Lexington Books, 1983.
- Werntz, Ted. "A Preliminary Review of CATV as a Two-Way System." Columbia University Technology and Society Program, Working Paper V (February 1972).
- White, Anthony. A Selected Bibliography on Cable Television. Monticello, IL: Council of Planning Librarians, 1973.

Whiteside, Thomas. "Onward and Upward with the Arts." New York Magazine May 20, May 27, June 3, 1985.

Williams, Wenmouth, and Kathleen Mahoney. "The Perceived Impact of the Cable Policy Act of 1984." Journal of Broadcasting and Electronic Media Volume 31, Number 2 (Spring 1987).

Wirth, Michael, and Linda Cobb-Reiley. "A First Amendment Critique of the 1984 Cable Act." Journal of Broadcasting and Electronic Media Volume 31, Number 4 (Fall 1987).

Wolff, Robert Paul. In Defense of Anarchism. New York: Harper and Row, 1970.

Yao, Margaret. "Two-Way Cable TV Disappoints Viewers in Columbus, Ohio, as Programming Lags." Wall Street Journal, September 30, 1981.