Issues Concerning Telcos' Entry Into Information Services: Experience in the United States, France, and Japan

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Executive Summary

This paper examines issues concerning telcos' (BOCs) entry into information services from a marketing, economic, and political standpoint by taking into account the interests of various stakeholders. It also analyzes the position and potential of electronic yellow pages (EYP) in the market. BOCs regard EYP as an introductory service: since Yellow Pages users already know how to use the directory, as an on-line service, EYP could offer users an attractive means to learn about using electronic information.

- As of the beginning of 1992, legal and legislative maneuvering regarding the prohibition of the BOCs continues. BOCs were prohibited from providing information services by the *Modification of Final Judgment* (the MFJ, 1982). In *Computer Inquiry III* (1985), the FCC decided to develop nonstructural safeguards – Open Network Architecture (ONA) and Comparatively Efficient Interconnection (CEI) – in order to let BOCs provide competitors (independent providers of enhanced services) with nondiscriminatory access to the BOCs' local exchange. The FCC also decided to develop cost allocation rules to prevent BOCs' cross-subsidization of enhanced services by converting revenue from regulated local telecommunications services.

- In the U.S. information services market, since the early 1980s several videotex services were provided by newspaper publishers and other companies, such as Viewtron by Knight-Ridder and Gateway by Times Mirror, both of which eventually shut down. (Most similar trials by newspaper publishers likewise failed.) One reason for Viewtron's failure was that Knight-Ridder overestimated the online videotex service market and, as a result, it was overbuilt. Also, its early marketing plans required users to purchase an expensive, specialized terminal in order to receive the services – a major problem for potential users. CompuServe, on the other hand, has become the largest online videotex service by making use of the existing personal computer base; it is reportedly today's most comprehensive, efficient, and functional online service.

  Most BOCs also are providing videotex gateway and audiotex gateway services. But one analyst, who studied NYNEX's recent withdrawal from videotex gateway, said that most BOCs would close these gateway services. Opposing BOCs' entry, newspaper publishers are providing audiotex services called Talking Newspapers. The American Newspaper Publishers Association (ANPA) indicated that these audiotex services could be a transitional device, smoothing the way to fully electronic classified advertisements and other electronic services.

- In France, France Telecom is distributing Minitel terminals (basic models) free of charge. Although nearly 5.6 million terminals had been distributed by the end of 1990, the average traffic (connect time) per terminal had peaked in 1986 but then decreased. France Telecom is facing a problem of low usage, caused in part by its policy to concentrate on being a facilitator; this caused a lack of online videotex service support for users until late 1987 and a

shortage of market information for information service providers (ISPs). One critic says that French Minitel taught the U.S. this valuable lesson: free distribution of terminals distorted the normal process for users to learn about using the Minitel services since they had no incentive to get a return on their investment.

- In Japan, Nippon Telegraph and Telephone Corporation (NTT) has been providing a videotex service called CAPTAIN, which is also experiencing a slump in the number of subscribers. NTT's role in CAPTAIN is that of both a facilitator and an information provider (IP).

  As for directory business, NTT has almost monopolized the market. NTT just started selling (disclosing) business telephone subscriber listings in January 1990. The usage of directories and penetration of advertisement among businesses is much lower than that of the U.S. NTT is also providing EYP, called CAPTAIN Town Pages, on a trial basis.

- Opponents to BOCs' entry into the information industry (including the ANPA) are concerned that if the MFJ's information services restriction were lifted, BOCs would discriminate against competitors in providing access to the local exchange network and to Customer Proprietary Network Information (CPNI), or possibly cross-subsidize their information services through revenue from regulated local exchange services. Opponents also claim that FCC rules are not effective enough to prevent such anticompetitive behavior by BOCs. This continues to be the subject of court and legislative battles.

  BOCs, on the other hand, assert that their entry into the information services market would contribute to the growth and diversification of the information industry by offering more services in health, education, public safety, and so on that would "enhance the quality of life for all Americans" and strengthen America's international competitiveness in the global marketplace. They also maintain that small and minority-owned businesses that cannot secure computers and software on their own would benefit from BOCs' public gateway, since these businesses can reach their users and also get billing services through BOCs' gateway services. Finally, BOCs emphasize that if allowed to provide EYP, they could offer users the convenience of storing and organizing information based on their needs as well as finding up-to-date information on all kinds of products and services.

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Author's Note

The database for this paper was closed in June 1991, prior to further legal and legislative maneuvering and to the decision of July 25, 1991, of the U.S. District Court for the District of Columbia allowing the BOCs to provide an array of information services to homes and businesses over the telephone network while simultaneously staying the order. The purpose of the stay, the Court said, was to permit appeals to higher courts. In effect, the stay might delay matters for months, and it was promptly appealed. On October 7, 1991, the Court of Appeals lifted the stay, and this was affirmed by the Supreme Court.

With the outcome of the court battle uncertain, but with the tide of the moment running in favor of the telecommunications carriers, the newspaper industry and others counterattacked by supporting legislation introduced in October 1991 in the waning days of the first session of the 102d Congress and known as the Cooper bill, after its sponsor in the House of Representatives. Operative parts of H.R. 3515, the proposed "Telecommunications Act of 1991," are identical with provisions of the Senate version introduced in November 1991 by Senator Inouye as the "Information Services Diversity Act of 1991." Both bills would amend Title II of the Communications Act of 1934 by adding at the end a new section 227 which would permit operating companies to provide information services, but under restrictions.

Mainly, information services would be prohibited until the Federal Communications Commission, "after notice and opportunity for public comment and after consultation with the Department of Justice and the appropriate State commission, determines that:

A) at least 50 percent of all businesses and residences within the areas in such State in which such company or any affiliate thereof provides telephone exchange service have access to transmission and switching facilities (other than those owned or controlled by an operating company or its affiliate) that are comparable in quality, cost, geographic range, and functionality to those offered by the operating company for the delivery of electronic publishing services; and

(B) at least 10 percent of all businesses and residences within the areas in such State in which such company provides telephone exchange service subscribe to services delivered over such alternative facilities; and

(C) it is unlikely that the operating company could use its position as a local exchange carrier to (i) impede competition in the provision of such electronic publishing services, or (ii) impose additional costs upon subscribers of telephone exchange service."

No hearings had been held by the end of 1991.

Preface

This paper analyzes and evaluates various opinions about BOCs' entry into information services. It also considers regulatory frameworks for this business from a political, economic, and marketing point of view by taking into account the position of information services (this paper focuses on the issue of content creation and provision by BOCs) in the market and the stakes of the players.

BOCs' right to provide information services has been hotly debated since the onset of the 1990s. Under the Modification of Final Judgment, BOCs are banned from providing information services although they have expressed a strong desire to enter this business. As a type of information service, the so-called Electronic Yellow Pages (EYP), which is not only a directory but also an advertising medium, is said to be one of the major possible services BOCs could provide. Therefore, the newspaper industry, which receives most of its revenues from advertising, strongly opposes BOCs' entry into information services. Other small independent information service providers are worried about possible discrimination in their access to the BOCs' local exchange and customer proprietary information, and they also fear cross-subsidization by BOCs.

To give readers a deeper perspective on the debates, the paper compares the U.S. situation with corresponding cases in France and Japan, which are subject to different regulatory frameworks. In France, France Telecom, the government-owned telecommunications provider, has been distributing, and encouraging customers to use, terminals to access the videotex service nationwide. This case illustrates how a regulatory framework can influence the usage and growth of information services.

In Japan, on the other hand, an issue similar to that in the U.S. has not arisen and videotex (called "CAPTAIN" in Japan) has not yet become widespread. Although EYP currently is provided by NTT, it has not been used widely. Even printed directories are regarded as neither major advertising media nor useful information sources for users. But the

time might come when the regulatory framework for information services needs to be reconsidered in Japan.

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CHAPTER ONE

REGULATORY FRAMEWORK FOR TELEPHONE COMPANY INFORMATION SERVICES IN THE UNITED STATES

Currently, two regimes apply to the issue of the BOCs' entry into information services.[1] One is the judicial framework of the 1982 *Modification of Final Judgment* (MFJ), and the other is the regulatory framework of the FCC's Computer Inquiries I-III (CI.I-III) decisions. See **Table 1-1** for the regulatory history concerning information services.

1.1 Judicial Framework for AT&T and GTE before the Modification of Final Judgment

The 1956 Consent Decree prohibited AT&T from engaging in any business except "the furnishing of common carrier communications services. . . . These were defined as 'communications services and facilities . . . the charges for which are subject to public regulation under the Communications Act of 1934.' "[2] (The 1956 Consent Decree was amended by the *Modification of Final Judgment* in 1982.)

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[1] The MFJ defines *information services* as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information which may be conveyed via telecommunications, except that such service does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service." *USA v. AT&T Co.*, 552 F. Supp. 131 (D.D.C. 1982), *aff'd mem. sub nom., Maryland v. USA*, 460 U.S. 1001 (1983), *modified, USA v. Western Electric Co.*, 673 F. Supp. 525 (D.D.C. 1987), 714 F. Supp. 1 (D.D.C. 1988), *aff'd in part and rev'd in part*, 900 F. 2d 283 (D.C. Cir. 1990), *cert. denied*, 59 U.S.L.W. 3266 (1990), IV(J).

[2] Huber, Peter W., *The Geodesic Network: 1987 Report on Competition in the Telephone Industry*, prepared for the U.S. Department of Justice, Antitrust Division (Washington, D.C.: GPO, 1987) (hereinafter, *Huber Report*). According to the report, in 1956 there was no electronic "information services" market to speak of.

Table 1-1

Regulatory History of Telcos Information Services

Regulation	PLAYERS			
	AT&T (including BOCs)		Independents	
			GTE	Others
1956 *Consent Decree*	AT&T can engage in only "the furnishing of common carrier communications service."		N/A	N/A
1971 FCC *Computer Inquiry I*	N/A		Common carriers can provide data processing services only through separate subsidiaries ("structural separation").	
1980 FCC *Computer Inquiry II*	A distinction between "basic" and "enhanced" was made and the "structural separation" requirement of *Computer Inquiry I* was retained.		"Structural separation" requirement was removed. (GTE: 1980 *Computer Inquiry II Reconsidered Decision.*)	
1982 *MFJ*	**AT&T:** AT&T was prohibited from engaging in electronic publishing over its own transmission facilities until 7 years after the entry of the MFJ.	**BOCs:** BOCs were prohibited from providing information services directly or through any affiliated enterprise.	N/A	N/A
1984 *GTE Consent Decree*	N/A	N/A	GTE can provide information services through separate *divisions.*	N/A
1985 FCC *Computer Inquiry III*	N/A	"Structural separation" requirement was removed. (FCC decided to develop non-structural safeguards: cost allocation rule, ONA, CEI.)		N/A
1987 *Triennial Review of the MFJ*	N/A	Gateway, voice messaging services, voice storage and retrieval, and electronic mail services were permitted.	N/A	N/A
April 1990 Court of Appeals for the District of Columbia Circuit	N/A	The district judge's ruling on information services was reversed and remanded.	N/A	N/A
June 1990 Court of Appeals for the Ninth Circuit	N/A	*Computer Inquiry III* was vacated and remanded to the FCC.	N/A	N/A

MFJ*: *Modification of Final Judgment

As for GTE,[3] which also provides local telephone exchange services through fifteen operating companies and is the largest independent (non-BOC) telephone company,[4] the GTE Consent Decree (1984) permits GTE operating companies to provide information services through separate divisions.

The decree also prohibits the information services entity (GTE's separate division) "from owning or controlling any facilities used to provide regulated exchange services, . . . from using common marketing personnel, and . . . from obtaining proprietary operating company marketing, customer, or network engineering information."[5]

Thus, the scope of AT&T's business (including BOCs before the divestiture) was essentially limited to transmission of information before the MFJ.

1.2 The Modification of Final Judgment

The *Modification of Final Judgment* (MFJ) allowed AT&T to provide "data storage and processing, markets such as voice storage and retrieval, timesharing, and electronic mail"[6] but divested AT&T of the seven BOCs. AT&T was prohibited from engaging in "electronic publishing"[7] over its own transmission facilities for seven years after

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[3] The *Huber Report* states that GTE "is an important ISP in several national markets...." and that "GTE merits special attention because other than in the geographic dispersion of its telephone [companies], GTE is very similar to ... [BOCs]" (6.12). The report shows that in both the number of access lines and revenues, GTE is not smaller than BOCs (see Table IS.8).

[4] United States Court of Appeals for the Ninth Circuit, *NATA v. the FCC*, 905 F. 2d 1217 (9th Cir., 1990), citing at 5743.

[5] *Huber Report*, 6.13.

[6] Ibid., 7.6-7.7.

[7] The MFJ defines *electronic publishing* as "the provision of any information which AT&T or its affiliates has, or has caused to be, originated, authored, compiled, collected, or edited, or in which it has

the date of entry of the decree. AT&T was allowed, however, to provide "electronic directory services that list general product and business categories, the service or product providers under these categories, and their names, telephone numbers, and addresses or [to provide] the time, weather and such other audio services as [were] being offered as of the date of the entry of the decree. . . ."[8]

On the other hand, the MFJ prohibited BOCs from providing information services directly or through any affiliated enterprise.[9] But in the first triennial review of the MFJ in 1987, Judge Greene of the District Court for the District of Columbia District allowed BOCs to provide "gateway service,"[10] which is the transmission of information services generated by others. Greene said that " 'the data indicate [BOCs'] ownership of *gateway* facilities similar to French VAPs' (video access points) 'would decrease the cost of providing videotex.' " The Judge continued, stating that " '. . . [t]he gateway functions, . . . consist of data transmission, address translation, protocol conversion, billing management, and introductory information content. . . ." and that "introductory content must be strictly limited to the display of a welcoming page and provider listings" in order to avoid "the creation of an incentive and ability [for BOCs] to engage in anticompetitive behavior."[11]

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a direct or indirect financial or proprietary interest, and which is disseminated to an unaffiliated person through some electronic means." 552 F. Supp. at VIII(D).

[8] 552 F. Supp. at VIII(D).

[9] 552 F. Supp. at II(D)1.

[10] "A gateway would operate as a regional company interface or connection point between consumers and information service providers [ISPs] – that is, as an interconnecting data transport system, accessible through a single, preferably truncated, telephone number." "Greene Finds Information Services Issues Most Difficult, but Sees Same Factors Backing Retention of Restriction," *Telecommunications Report* 53, no. 37 (September 14, 1987), 13.

[11] Ibid., 13-14.

In the triennial review, Judge Greene also permitted BOCs to provide electronic "white pages" (EWP); according to Greene, " 'there would appear to be no economic basis for anticompetitive activity in connection with the production of *white pages* directories. . . .' " Greene did not permit BOCs to provide electronic "yellow pages" (EYP) because " '[BOCs] would plainly have the incentive and ability to discriminate both against competing providers of directory services [yellow pages] and against the publishers of classified and other advertisements.' "[12]

On March 7, 1988, Judge Greene permitted BOCs to offer voice messaging service, voice storage and retrieval, and electronic mail services.[13]

1.3 Judgment of the Appeals Court for the District of Columbia Circuit

In its April 3, 1990, decision, the Court of Appeals for the District of Columbia Circuit (hereinafter, the court of appeals) reversed Judge Greene's ruling dealing with information services and remanded the case to the district court.[14]

> In its ... decision, the court of appeals said that since the information services restriction was not contested by either AT&T or the Justice Department, the original parties to the antitrust consent decree, Greene should have

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[12] Ibid., 14.

[13] These services are defined as enhanced services under the FCC, CI.II. 905 F. 2d at 5742.

[14] In March 1988, BOCs filed a suit seeking the withdrawal of district Judge Greene's decision, which did not permit BOCs' entry into information services, interexchange service, and manufacturing in the triennial review of the MFJ. See United States Court of Appeals for the District of Columbia Circuit, *USA v. AT&T Co.*, 552 F. Supp. 131 (D.D.C. 1982), *aff'd mem. sub nom., Maryland v. USA*, 460 U.S. 1001 (1983), *modified, USA v. Western Electric Co.*, 673 F. Supp. 525 (D.D.C. 1987), 714 F. Supp. 1 (D.D.C. 1988), *aff'd in part and rev'd in part*, 900 F. 2d 283 (D.C. Cir. 1990).

> only considered whether entry into information services by the RHCs [BOCs] was in the public interest. [The court of appeals said that] Greene used the much tougher legal standard of whether there was a substantial possibility that a RHC could use its monopoly power to impede competition.[15]

The points of the decision by the court of appeals are described below.

The court of appeals pointed out that the district judge drafted section VIII(C) of the MFJ to examine the case and that "the district court's erroneous reliance on section VIII(C)[16] affected the [district] court's decision to deny the BOCs' unopposed motion to remove the decree's restriction on information services."[17] The court of appeals said that "uncontested motions[18] for modification – those involving the information services and non-telecommunications business restrictions – should be treated by the district judge under section VII[19] of the decree, and should be approved so long as the modifications satisfy the 'public interest' standard embodied in the Tunney Act."[20] It also said

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[15] Mason, Charles, "RHC Information Issue Headed for Supreme Court," *Telephony* 218, no. 22 (May 28, 1990), 11.

[16] 552 F. Supp. at section VIII(C) reads: "The restrictions imposed upon the separated BOCs by virtue of section II(D) [the line of business restrictions] shall be removed upon a showing by the petitioning BOC that there is no substantial possibility that it could use its monopoly power to impede competition in the market it seeks to enter."

[17] 900 F. 2d at 51.

[18] In the triennial review of the MFJ in 1987, the Department of Justice changed its former position and supported the removal of the information services restriction. (900 F. 2d at 20.)

[19] 552 F. Supp. at section VII concerns "retention of jurisdiction" by the district court "for the purpose of enabling any of the parties to ... [the MFJ] ... to apply to this Court [the district court]...."

[20] 900 F. 2d at 26.

that "the [district] court should also bear in mind the *flexibility* of the public interest inquiry."[21]

1.4 Computer Inquiries I-III

1.4.1 Background

The other constraint imposed on AT&T and BOCs came from consecutive Computer Inquiries (CI) by the FCC:

> By the 1960s, the growing interdependence of the telephone and the computer created regulatory problems for the [FCC]. Increasingly, providers of data processing services, such as IBM, were using the transmission facilities of communications common carriers to deliver computer-based information to customers' terminals.... [The FCC] was concerned that [common] carriers would gain an unfair competitive edge by discriminating in favor of their own enhanced service offerings in providing access.... [The FCC] was [also] concerned that carriers would exploit their exchange monopolies by passing on to telephone ratepayers costs properly attributable to their unregulated enhanced services business.... [The FCC attempted] to guard against these potential abuses of [tele]communications carriers' monopoly power [by CI].[22]

1.4.2 The First and Second Computer Inquiries

> In the *First Computer Inquiry* [(CI.I), which was concluded in 1971] ... the [FCC] required that any telephone carrier offering such enhanced services do so by means of a separate corporate subsidiary. [This] structural separation requirement was applied to all carriers with annual revenues exceeding $ 1,000,000,... Structural separation was not initially regarded as applying to ... [AT&T] and its local exchange affiliates (the Bell System), because those companies were thought to be barred from

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[21] 900 F. 2d at 55.

[22] 905 F. 2d at 5737-39.

offering data processing services by a 1956 antitrust consent decree.[23]

In its 1980 *Second Computer Inquiry* [CI.II] decision, the FCC redefined regulated communications services and unregulated data processing. By creating a regulatory distinction between 'basic'[24] and 'enhanced'[25] services, the [FCC] sought to draw a bright line between activities that would be regulated as common carrier offerings and those that would not.... Although the FCC in [CI.II] continued to rely on structural separation as the principal means of preventing cross-subsidization and discriminatory access, [the FCC] restricted the requirement [only] to ... [AT&T and] the Bell System [its operating subsidiaries],[26] and removed the requirement from all other carriers[27] regardless of whether their revenues exceeded $1,000,000.... [Through these regulatory actions the] FCC attempted to predicate the need for regulation on a carrier's national market power, which only AT&T had.

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[23] Ibid., 5739.

[24] In CI.II by the FCC, "a 'basic' service involves 'pure transmission capability over a communications path that is virtually transparent in terms of its interaction with customer supplied information.' 77 F.C.C. 2d at 420. 'In the provision of a basic transmission service, memory or storage within the network is used only to facilitate the transmission of the information from the origination to its destination, and the carrier's basic transmission network is not used as an information storage system.' Id." *Huber Report*, 6.1, note 1.

[25] In its CI.II, the FCC defines "enhanced" services as those "offered over common carrier transmission facilities used in interstate communication, which (1) employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; (2) provide the subscriber additional, different or restructured information; or (3) involve subscriber interaction with stored information. 77 F.C.C. 2d at 498." *Huber Report*, 6.1, note 1.

[26] "AT&T remained subject to the 1956 antitrust consent decree when the FCC adopted [CI.II]. That decree had limited AT&T essentially to the provision of services that were 'subject to regulation.' " 905 F. 2d at 5740, note 9.

[27] "Initially, the FCC required GTE to offer enhanced services through a separate subsidiary; however, on reconsideration, the [FCC] released GTE from the requirement." Ibid., 5740, note 10.

> However, the [FCC] neither defined the 'national market' at issue nor explained why it drew its regulatory line between national market power and substantial regional market power such as that enjoyed by GTE....[28]

1.4.3 The Third Computer Inquiry

> In August 1985, just 14 months after concluding the BOC Separation Proceeding, in which the FCC rejected the argument that divestiture had reduced the need for structural separation, the [FCC] reversed course and announced its intention to relieve the BOCs of the separation requirements. The FCC now reasoned that divestiture and increased competition in the enhanced services market had somehow diminished the value of structural separation as a safeguard against monopoly abuse.... [T]he FCC tentatively concluded that the costs of separation now exceeded its public benefits and proposed to replace the requirement with accounting and other nonstructural regulations.[29]

> The FCC decided that its structural separation regulations had imposed costs in terms of the unavailability of certain services, lost economies and efficiencies, and the inability of customers to obtain complete telecommunications and data processing solutions from a single vendor. The FCC also determined that the BOCs' ability to cross-subsidize had been restricted because of divestiture, the growth of competitive alternatives to the BOCs' ordinary telephone service, and political and regulatory pressures at the state level to keep local phone rates down. The BOCs' ability to discriminate by providing inferior network access had also diminished, according to the FCC, because of industry-wide coordination of network standards and the threat that enhanced services competitors could bypass the BOCs' local exchanges.... However, the FCC did not address the question of whether divestiture had resulted in a diminution of the power of the surviving regional BOCs to subsidize their unregulated

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[28] Ibid., 5739-41.

[29] Ibid., 5747-48.

> enhanced service operations by shifting costs to monopoly ratepayers.[30]
>
> The FCC concluded that the regulatory goals served by structural separation could be achieved by two nonstructural safeguards. *First*, the FCC would develop cost allocation methods to minimize the BOCs' ... [cross-subsidization]. *Second*, the FCC adopted regulations specifically designed to prevent the BOCs from using their 'substantial market power in providing network access' to discriminate against competing providers of enhanced services.[31]

As a part of these regulations, *first*, the FCC introduced Comparably Efficient Interconnection (CEI)[32] and Open Network Architecture (ONA),[33] which require "BOCs to make the telephone networks as accessible to competitors as they are to the BOCs themselves."[34] "The ONA and CEI requirements of [CI.III] are applicable to the BOCs and AT&T, but not to the independent telephone companies."[35] "*Second*, each BOC must notify its competitors in enhanced services industry of changes in the network that may affect the provision of enhanced services so as to permit competitors to take advantage of the changes. *Third*, each BOC must provide its competitors with information about customer use of the telephone network so that the competitors may design their services to suit customer needs."[36]

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[30] Ibid., 5749.

[31] Ibid., 5749-50.

[32] CEI means "each BOC must, pending more permanent changes, provide competitors with connections to the local exchange network that are equal to the connections available to the BOCs' own enhanced services...." Ibid., 5750, note 20.

[33] ONA means "each BOC must ultimately incorporate CEI concepts into the overall design of its basic service network." Ibid.

[34] Ibid., 5749-50.

[35] Ibid., 5769, note 31.

[36] Ibid., 5749-50.

On June 6, 1990, the Court of Appeals for the Ninth Circuit filed the decision in the case where it was requested to review the FCC's CI.III orders and vacated the CI.III Orders and remanded it to the FCC for further proceedings.[37] The court of appeals, having checked the rationale used by the FCC, said that the FCC's substitution of nonstructural safeguards for the structural separation requirements to which BOCs were subject was unlawfully "arbitrary and capricious."[38]

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[37] Ibid., 5784.

[38] Ibid., 5784, 5769.

CHAPTER TWO

THE POSITION IN 1991 OF INFORMATION SERVICES IN THE U.S. MARKET AND THE STRATEGY OF BOCS AND NEWSPAPER PUBLISHERS

2.1 Overview

This chapter analyzes the performance of information services, some of which were provided in the past while others were provided in 1991, in order to understand the position of information services in the market. As an example of information services to be examined, this chapter deals with several videotex and audiotex services.

This chapter highlights some examples of videotex services provided by newspaper publishers in the early 1980s and also examples of audiotex services provided by BOCs, independent directory publishers, and newspaper publishers. The issues and stakes between BOCs and newspaper publishers become clear when the content of their videotex and audiotex services is investigated.[39]

2.2 Videotex Service

In the United States, major videotex services were explored in the early 1980s. Three examples illustrate different strategies about diffusion, pricing, and content of the service. The first example is Viewtron, a service that eventually failed[40]; it was run by the newspaper publisher Knight-Ridder, which started the service in South

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[39] Actually, the content of audiotex services provided by BOCs and newspaper publishers overlaps.

[40] Aumente, Jerome, *New Electronic Pathways: Videotex, Teletext, and Online Databases*, The Sage Commtext Series, vol. 17 (Newbury Park, Calif.: Sage Publications, Inc., 1987), 57. Aumente points out that Viewtron was a failure. See also "Directory Publishers Wrestle with the Electronic Future," *Directory World* (Larchmont, N.Y.: Communication Trends, Inc., December 1989), 1. *Directory World* is a magazine for the Yellow Pages and directory industry.

Florida in 1983 but shut it down in March 1986.[41] The second example is CompuServe, said to be the world's largest online information service for personal computer users.[42] The third example is Prodigy, which was started in April 1988 as a joint venture of IBM and the Sears Roebuck & Co.; said to be the biggest gamble,[43] Prodigy continues to provide the service while generating losses, estimated at between $75 million and $125 million each year.[44]

2.2.1 Viewtron

2.2.1.1 Outline of the service

Structure. Knight-Ridder started the videotex service on a commercial basis in southern Florida in October 1983. "It originally planned to fan out nationally in joint ventures with regional newspaper publishers. . . . It introduced AT&T Sceptre videotex terminal . . . as the only way to access the system."[45]

Price. When the service was started, users had to pay $600 for the specialized terminal, a monthly fee of $12, plus $1 per hour for connect charges. The first reduction in price came in April 1984 when Viewtron set the monthly fee at $39.95, which included terminal rental and ten hours of connect time each month. In March 1985, the fee was further reduced to $24.95, and included terminal rental and five hours of connect time ($1 for each additional hour).[46]

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[41] Aumente, *New Electronic Pathways*, 54-55.

[42] "CompuServe Reaches Half-Million Mark," Business Wire, Columbus, Ohio (March 14, 1989) (NEXIS).

[43] *Directory World*, "Directory Publishers Wrestle with the Electronic Future," 1.

[44] Sherman, Tom, "The Prodigy Service: A Glimpse of the Future," *Link-Up* vol. 7, no. 3 (May 1990).

[45] Aumente, *New Electronic Pathways*, 55, 59.

[46] Tyson, David O., "Viewtron Will Lower Fees as It Prepares Move into Market for PCs," (February 20, 1985) (NEXIS); see also Aumente, *New Electronic Pathways*, 55-56.

Content. Viewtron contained a home banking service,[47] "extensive travel information, airline and auto rental rates, . . . a vacation planner that factored in time, costs, and other elements for a personalized plan," ticket reservation, film and restaurant reviews, guidance on family health care, electronic mail, and entertainment such as games and biorhythm and horoscope checks.[48] It also provided a national weather service and the news, "sectioned into local, national, world, and business categories."[49] "Viewtron was marketed to appeal to a general population of personal computer [(PC)] or dedicated terminal" users, offering services displayed in full color and with graphics.[50]

According to Reid Ashe, chairman and chief executive officer of View Data Corporation of America (VCA), a subsidiary of Knight-Ridder Newspaper Inc., "more than half the use . . . was from people communicating with one another through electronic mail and other means."[51]

2.2.1.2 Reasons for Viewtron's failure

In March 1986 when the number of users was estimated at 20,000, Viewtron shut down "after spending upward of $45 million in trials and commercial start up."[52] Ashe said that "[t]he company appear[ed] to be at least a couple more years away from making money or at least breaking

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[47] Home banking service allows users to check their account balance, transfer money, and so on.

[48] Aumente, *New Electronic Pathways*, 57.

[49] Ibid., 56. In 1983, Viewtron officials predicted that by 1993 they would cover the newspapers of 30 of the top 35 U.S. markets (ibid., 59).

[50] Sexer, Beth A., "Viewtron Exit Leaves Computer Shopping in Doubt," *Discount Store News*, vol. 25 (April 14, 1986).

[51] "Knight-Ridder Pulls Plug on Viewtron: Discontinuation of Videotex Service," *Broadcasting*, vol. 110 (March 24, 1986) (NEXIS).

[52] Aumente, *New Electronic Pathways*, 55.

even, . . .[53] He also said that they would have needed at least several times more users to continue the business.[54]

Two reasons for Viewtron's failure, according to Ashe, who was brought into the troubled operation toward the end of 1984, were the miscalculations that the public was "utterly resistant" to Sceptre terminals and that the market for online service was "grossly overestimated."[55]

Other reasons for Viewtron's failure are the following:

- "Some of the content simply duplicated what [users] had from other print and broadcast media more cheaply and conveniently. . . . People wanted value-added services. . . ."[56]
- "Both Times Mirror and Knight-Ridder[57] officials said that the electronic delivery of news and information has not been enough to capture the imagination of consumers used to newspapers, magazines, television and other information sources."[58]
- "[E]arly marketing plans to offer color graphics . . . which required many users to purchase a specialized terminal" at the price of $600,[59] was a problem too steep for potential users.[60]

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[53] Stouffer, Rick, "Lack of Usage Spells Doom for Viewtron System," *Pittsburgh Business Times & Journal* 5, no. 33 (March 31, 1986).

[54] *Broadcasting*, "Knight-Ridder Pulls Plug on Viewtron."

[55] Aumente, *New Electronic Pathways*, 55.

[56] Ibid., 58.

[57] Times Mirror, which publishes the *Los Angeles Times* and other major newspapers as well as books and magazines, launched Gateway Videotex in Southern California in 1984 but closed the service in March 1986. Like Viewtron, at the outset of the service, Times Mirror let users use AT&T's Sceptre terminal, which is specialized for Gateway's service, but later made PCs available to access the service. Aumente, *New Electronic Pathways*, 60.

[58] Kramer, Matt, "Knight-Ridder Ends Viewtron Consumer Videotex Service," *PC Week*, vol. 3 (March 25, 1986).

[59] "Just prior to the launch of the national service [in 1985], Knight-Ridder ... dropped color and graphics" and made the system accessible to PC users by communication software. Ibid.

- Paul M. Orme, president of VCA, said that "Viewtron's focus on the home consumer was probably a mistake" and that he should have "focus[ed] on the business side and the PC market first. . . ."[61]

- Joshua Harris, a videotex analyst at Link Resources, stated that " '[Viewtron] had a reasonable service but it was too little, too late.' " He also pointed out that " '[c]onsumer videotex is going into niche markets and targeting specific types of consumers with specific needs and meeting them.' "[62]

Related to the closing of Viewtron, James Batten, president of Viewtron, said that " '[t]he American public is not ready to support a videotex service at a level that would justify the continuing expense . . .' " and that " '[v]ideotex is not likely to be a threat to either newspaper advertising or readership in the near future.' "[63]

2.2.2 CompuServe

2.2.2.1 Structure

"CompuServe began in 1969 as a time-sharing service for businesses needing remote access to mainframe computers, and 10 years later, it began its Information Service. . . . By 1986, it had opened new markets for PC users, . . ."[64] CompuServe is reported to be the most comprehensive, efficient, and functional of the online services.[65] Of online systems worldwide, CompuServe has the largest number of subscribers, currently serving more than 600,000.[66]

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[60] Sexer, "Viewtron Exit Leaves Computer Shopping in Doubt."

[61] Aumente, *New Electronic Pathways*, 58.

[62] Kramer, "Knight-Ridder Ends Viewtron Consumer Videotex Service."

[63] Ibid.

[64] Aumente, *New Electronic Pathways*, 72.

[65] Harris, Joshua M., "The Gentrification of Videotex: CompuServe Aims at a Subscriber with Broader Tastes," *Link-Up* 6, no. 5 (1989).

[66] Gold, Steve, "Cashing In on Communications: British Telecom Faces European On-Line Competition from CompuServe," *PC User*, no. 115 (September 13, 1989).

CompuServe extended its service into some European countries and Japan.[67] According to Richard Baker, director of communications of CompuServe, the service "attracted [users] nationally who were well-educated 'characteristic Yuppie types.' "[68]

2.2.2.2 Price

The cost to use CompuServe consists of a one-time membership fee ($39.95), connect rates ($12.50 per hour in the case of 1200 or 2400 baud), and a communication surcharge, the fee for CompuServe's own communication network ($0.30 per hour). Beyond these fees, users are charged additional hourly rates – called transaction surcharges – for a few CompuServe services that let them access certain premium publications and databases.[69]

2.2.2.3 Content

By 1986, CompuServe had more than "900 databases for electronic access of news, information, transaction, and communications. . . . An electronic clipping service automatically gather[s] stories from multiple news sources preprogrammed by the subscriber."[70]

CompuServe also provides financial services such as stock market quotes, information about companies, telebanking (home banking) and teleshopping, national bulletin boards, hotel and rental-car guides and ticket reservation (CompuServe provides users with the lowest airfare), and a CB simulator – "one of CompuServe's most lucrative services, with as many as 250 people from all over the world talking (on their computer) simultaneously." In 1980 the CB simulator accounted for a little more than half of the service's total usage, but in 1989 it accounted for much less.[71]

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[67] Ibid.

[68] Aumente, *New Electronic Pathways*, 72.

[69] CompuServe brochure #CS-1222 (September 1988).

[70] Aumente, *New Electronic Pathways*, 72.

[71] Ibid.; and Harris, "The Gentrification of Videotex."

Some examples of CompuServe's Executive Service Option, an enhancement to the basic service that costs users a one-time fee of $10 (when the charges exceed $10 within a given month, there is no extra fee), are as follow:

- Executive News Service: A "clipping service that enables users to retrieve articles from the Associated Press, Reuters Financial Report, the Washington Post online edition, OTC News Alert, and McGraw-Hill News."
- Supersite: A "source of demographic data accessible by county or ZIP code."
- Ticker Retrieval: A "tool to find information on companies for investment purposes."
- Return Analysis: A "method for measuring investment performance."
- Institutional Brokers Estimate Survey: A "Wall Street Source that forecasts the earnings of U.S. corporations."[72]

Charles W. McCall, CompuServe's president and chief executive officer, "attributes the company's consistent growth to several key points: CompuServe's early understanding of the power and value of the [PC], the value of providing high quality and timely information, developing innovative products and services, and staying in touch with its members."[73]

2.2.3 Prodigy

2.2.3.1 Outline of the service

Structure. Prodigy was publicly offered in April 1988 as a joint venture of Sears and IBM. At the end of 1990, Prodigy had about 460,000 subscribers[74]; the number of participating households doubled to 200,000 in just four months (from October 1989 to January 1990). "The service is now available with a local call in more than 125 cities in 18

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[72] Harris, "The Gentrification of Videotex."

[73] Business Wire, "CompuServe Reaches Half-Million Mark."

[74] Mason, Charles, "Prodigy Goes for the Gold with Mass Market Push," *Telephony* (September 17, 1990), 12.

states."[75] "Revenues are generated by the sale of advertising, which is viewed on the computer screen along with the information service the user has accessed."[76]

"Local storage of frequently requested information at these local sites is key to Prodigy's cost-efficient delivery of home information services."[77]

Users can access the Prodigy service through IBM computers and compatibles and the Apple Macintosh.[78]

Price. Prodigy has three sources of revenue. Subscribers pay an initial fee or purchase price of $49.95 (frequently discounted to $25-30) for a communications software package and 30 days of service. Subscribers also pay a flat rate of $12.95 monthly for unlimited use after the initial period.[79] Prodigy's flat monthly fee – as opposed to its hourly connect-time charges – are made possible by extensive advertiser support.

"Prodigy charges advertisers either a flat fee, or on a per-reading basis. Prodigy also gets a cut ranging from 5 percent to 20 percent whenever a product is ordered from an advertiser using the service."[80]

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[75] Sherman, "The Prodigy Service: A Glimpse of the Future."

[76] Smith, Harry, *Inside the Yellow Pages Conference Proceedings, 1990: Speaker Summaries* (Larchmont, N.Y.: Communications Trends, Inc., 1990), 9. Smith is assistant to the president of Prodigy Services Co., a joint venture by IBM and Sears. The conference was held in San Francisco from March 4-6, 1990.

[77] "Nynex and Prodigy Enter Agreement to Offer Prodigy Services," PR Newswire (December 6, 1989) (NEXIS).

[78] "Prodigy Service Launches in Phoenix," Business Wire, Phoenix, Arizona (February 15, 1990) (NEXIS).

[79] Mason, "Prodigy Goes for the Gold with Mass Market Push," 12.

[80] "Prodigy Is Low-Cost Videotext: IBM, Sears Target Home Market," *Computer & Software News* 7, no. 2 (January 9, 1989).

Content. Prodigy users will view on-screen not only the information services they request but also advertisements, which generate revenues.

Prodigy users can receive more than 750 information services, of which the following are just a sample:

- "Shopping from dozens of leading companies such as JC Penney, Spiegel, K mart and Sears;
- Business and general news, weather, sports, and stock quotes updated throughout the day;
- Free electronic mail to Prodigy service members across the United States;
- Online trading of stocks, bonds, and other securities;"
- Travel services such as checking the lowest airfare, reserving airplane tickets, hotels and rental cars, and so on.[81]

According to Ek, a Prodigy spokesman, "Prodigy receives most of its revenue from home shopping transactions, of which it receives a negotiated percent from each retail client," and advertising is the second largest source of revenue.[82]

Its graphic display is available in color with giant-sized characters.[83]

Every moment Prodigy is on-screen, about one-quarter of the screen is taken up by advertising. To call up more information about a particular advertisement, the user simply hits a key, and a full ad or an order form will appear on-screen. The income from such advertisements and commissions on sales keeps monthly fees for the user low.[84]

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[81] Business Wire, "Prodigy Service Launches in Phoenix."

[82] Jean, Sheryl, "Prodigy Seeks to Live Up to Its Name," *The Providence Journal-Bulletin* 105, no. 38 (September 24, 1989).

[83] Ibid.; and Sherman, "The Prodigy Service: A Glimpse of the Future."

[84] Sherman, "The Prodigy Service: A Glimpse of the Future.

2.2.3.2 Problems with Prodigy

Financial prospect. Prodigy did not announce how much it had invested. According to industry analysts, the initial investment was $600 million.[85] But an estimate by Joshua Harris, president of Jupiter Communications Company of New York, a consulting and newsletter publishing firm, suggests that Prodigy invested only about $400 million.[86] Further, the Jupiter Company's *The Prodigy Report*, a market research study focused on the IBM/Sears partnership, reports that Prodigy's existing model is not expected to recover a return on the companies' investment before the year 2000.[87]

User friendliness. Critics of Prodigy object to the frequently changing advertising banners, which occupy five lines at the bottom of the screen. They complain that the service is slow, that even at 2400 baud (the system's highest speed) on a 386 machine or Macintosh II, users might have to wait more than five seconds to move from one screen to the next as the graphics are redrawn.[88]

Users also complain that the service "doesn't allow [them] to save incoming information to disk or to print everything [viewed on-screen] or to upload and download text and files." The available information was meant, for the most part, to be read online – not saved for future use.[89]

An article in *The Business Journal-Portland* points out that to make use of Prodigy, users need an IBM PC (or a compatible system) or an Apple Macintosh with at least 512K memory and a modem. A constraint is that only a fraction (30 percent in 1988) of American households that

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[85] Ibid.

[86] Tyson, David O., May 22, 1989 (NEXIS).

[87] Business Wire, "Prodigy Service Launches in Phoenix."

[88] Sherman, "The Prodigy Service: A Glimpse of the Future."

[89] Ibid.

have PCs are equipped with modems.[90] Such requirements limit Prodigy's market somewhat, even though there are more than 50 million personal computers in the United States.[91]

2.3 Talking Yellow Pages: Example of an Electronic Directory

2.3.1 Background on yellow pages business in the United States

According to the Yellow Pages Publishers Association (YPPA), the revenue of yellow pages in 1989 was $8,330 million, up 7.1 percent from $7,781 million in 1988 (growth rate in revenue was 6.6 percent in 1988 and 12.3 percent in 1987). For a comparison of the growth of revenue between the yellow pages and other media, see **Table 2-1** and **Figure 2-1**.

Efrem Siegel, publisher of Communications Trends Inc., stated in his comments at the Yellow Pages Conference held in San Francisco in March 1990 that the Yellow Pages industry comprised about 190 publishers, who were issuing 6900 directories.

Robert Abramson, vice-president, Sales and Development of Communications Trends Inc., reported that "Yellow Pages' share has been steady at 6 percent to 7 percent of the [advertising] industry." He added that "local advertising, which accounts for about 90% of Yellow Pages revenues, made up 45 percent of all advertising in . . . 1989. Yellow Pages' share of local advertising is about 13.5%."[92]

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[90] Ghesquière, Gilles, *French Minitel: Strategic Lessons for Videotext in the U.S., 1989-90,* Benjamin Compaine, ed. (Larchmont, N.Y.: Communications Trends, Inc., 1989), 53.

[91] Ibid.

[92] Robert Abramson, *Inside the Yellow Pages Conference Proceedings, 1990: Speaker Summaries* (Larchmont, N.Y.: Communications Trends, Inc., 1990), 3. Abramson is vice-president, Sales & Development,

Table 2-1

Advertising Expenditures of Yellow Pages and Other Media (1985-1989)

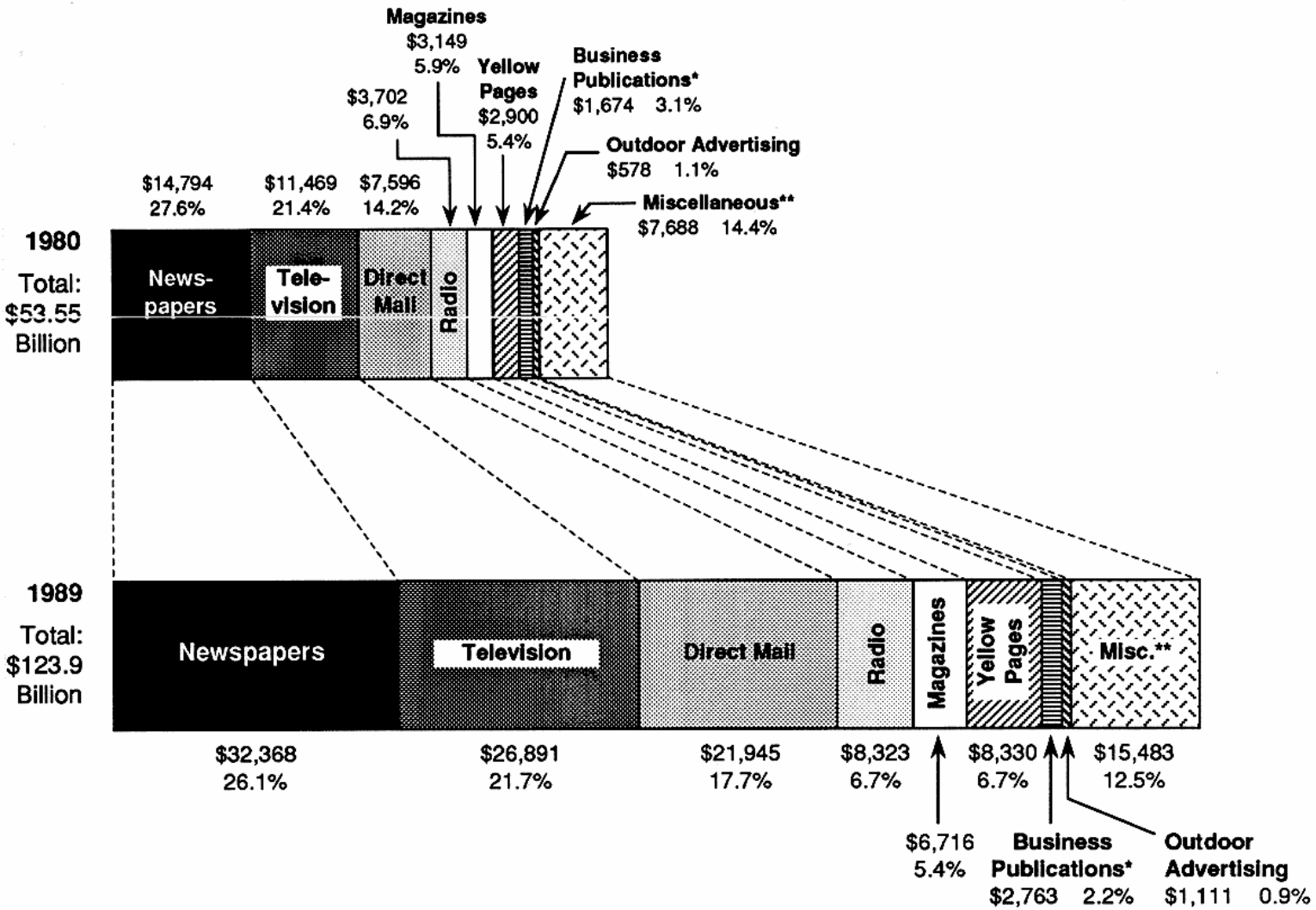
Media	1985	1986	1987	1988	1989
Newspapers					
Revenue ($ millions)	$25,170	$26,990	$29,412	$31,197	$32,368
Growth (percent)	7.0%	7.2%	9.0%	6.1%	3.8%
Television					
Revenue ($ millions)	$21,022	$22,881	$23,904	$25,686	$26,891
Growth (percent)	5.9%	8.8%	4.5%	7.5%	4.7%
Direct Mail					
Revenue ($ millions)	$15,500	$17,145	$19,111	$21,115	$21,945
Growth (percent)	12.3%	10.6%	11.5%	10.5%	3.9%
Yellow Pages					
Revenue ($ millions)	$5,800	$6,500	$7,300	$7,781	$8,330
Growth (percent)	18.4%	12.1%	12.3%	6.6%	7.1%
Radio					
Revenue ($ millions)	$6,490	$6,949	$7,206	$7,798	$8,323
Growth (percent)	11.6%	7.1%	3.7%	8.2%	6.7%
Magazines					
Revenue ($ millions)	$5,155	$5,317	$5,607	$6,072	$6,716
Growth (percent)	4.5%	3.1%	5.5%	8.3%	10.6%
Outdoor Advertising					
Revenue ($ millions)	$945	$985	$1,025	$1,064	$1,111
Growth (percent)	8.4%	4.2%	4.1%	3.8%	4.4%
Business Publications*					
Revenue ($ millions)	$2,375	$2,382	$2,458	$2,610	$2,763
Growth (percent)	4.6%	0.3%	3.2%	6.2%	5.9%
Miscellaneous**					
Revenue ($ millions)	$12,293	$12,991	$13,627	$14,727	$15,483
Growth (percent)	3.7%	5.7%	4.9%	8.1%	5.1%
Total					
Revenue ($ millions)	$94,750	$102,140	$109,650	$118,050	$123,930
Growth (percent)	7.9%	7.8%	7.4%	7.7%	5.0%

Note: Growth = percent growth from previous year.

* Business Publications consists of trade and technical journals.

** Miscellaneous includes the category Farm Publications.

Source: Data from McCann-Erickson. Graphic: © 1992 President and Fellows of Harvard College. Program on Information Resources Policy.



Notes: Revenues, unless otherwise stated, are in millions of dollars.
Percent = percent share of advertising revenues.
*Business Publications consists of trade and technical journals.
**Miscellaneous includes Farm Publications.

Source: Data from McCann-Erickson.

Figure 2-1

Yellow Pages Share in Advertising Revenue

2.3.2 Observations on the Talking Yellow Pages

As of September 1989, *Directory World* tallies show that 55 publishers offer Talking Yellow Pages (TYP) tied to nearly 450 directories.[93]

"There are currently more than 40 independents with TYP services in some 296 books, representing about 25% of all independents." As for utility publishers, "12 independent telephone companies offer talking services in more than 100 locations."[94]

Yellow pages publishers reportedly are using TYP to differentiate their directories from those of competitors. They therefore create new value for the advertiser by using technology to extend the shelf life of the directories, identify customers, and measure response to an advertisement.[95]

According to the *Huber Report*, annual advertising revenues for audio EYP (TYP) were probably between $15 million and $35 million in 1987. Also, the revenue from audio EYP represented less than 1 percent of the revenue of print yellow pages in 1985. The report also stated that audio TYP is currently marketed primarily as a niche product to advertisers wishing to supplement print yellow pages, and that some observers have suggested that the ability to accomplish frequent updates

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Communications Trends, Inc. The conference was held in San Francisco from March 4-6, 1990.

[93] "Talking Yellow Pages: Too Much Talk, Not Enough Action," *Directory World* (Larchmont, N.Y.: Communications Trends Inc., December 1989), 15.

[94] Mercurio, Carl, *Inside the Yellow Pages Conference Proceedings, 1990: Speaker Summaries* (Larchmont, N.Y.: Communications Trends, Inc., 1990), 2. Mercurio is managing editor, Yellow Pages & Directory Report. The conference was held in San Francisco from March 4-6, 1990.

[95] ANPA, *Strategic Tools for the 1990s*, Report No. 3: *The Media Triangle*, Report of ANPA's Telecommunications Opportunities and Strategies Task Force (Washington, D.C.: The Newspaper Center, 1989), 14.

on TYP may make it a potential competitor to newspaper classified advertising as well.[96]

2.3.3 Examples of Talking Yellow Pages

Some examples of TYP tried by BOCs or independent directory publishers follow.

Two types of TYP are explained by John F. McLaughlin, executive director of Harvard University's Program on Information Resources Policy (PIRP):

> The first [type] is typified by InfoPlus' Yellow Pages Plus, [which] is based on a traditional printed classified directory ... [and the] classified ads within the directory include a four-digit number.... [T]he person referring to the ad can enter a local telephone number, then the four-digit number from the ad, and then be connected to a pre-recorded message provided by the advertiser. These messages can be updated on a monthly, weekly, or even daily basis."[97]

He explained the second type of TYP as follows:

> The second type, typified by NYNEX's "Hello Yellow!" service,[98] uses human operators supported by computerized search systems, the consumer calls a telephone number obtained from a directory, a newspaper ad, or a placard in a hotel room, for example, and specifies his or her "search" request: "I would like to find an Italian restaurant in Cambridge." The answering operator, supported by a prompting system and appropriate search software, can help narrow the search by price, location, type of food, or other criteria."[99]

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[96] *Huber Report*, 9-1.

[97] McLaughlin, John F., "Talking Yellow Pages: Some Observations on U.S. Developments," *PIRP Perspectives* (Cambridge, Mass.: Program on Information Resources Policy, Harvard University, 1987), 2.

[98] Started in Albany, N.Y., in 1986, NYNEX "Hello Yellow" was shut down in April 1986 because of the information services restriction in the MFJ. NTT internal material, July 1986 report entitled "Directory Business in the U.S."; see also *Video Print*, May 8, 1986.

[99] McLaughlin, "Talking Yellow Pages," 2.

Illustrating the first type of TYP, R.H. Donnelley's TYP[100] consists of two parts. The first part consists of fourteen categories, including business and financial news (stock market reports of the U.S. and foreign countries, etc.), weather reports of major cities, an entertainment guide (reviews of movies, concerts, etc.), horoscopes, and so on. Such information is free to users, who only pay the telephone charge. Other information like sports scores and predictions, astrology, car prices, investment trend analysis, and so on, can be accessed by 900 numbers, but users are charged for connect time.[101] The content of this information and the telephone numbers with which the user can reach prerecorded messages are printed in the front pages of Donnelley's Yellow Pages (which is why this information is called "Front of the Book" Talking Yellow Pages).

The second part, as mentioned above, consists of advertisements with four-digit numbers that connect users to prerecorded messages of the advertiser.[102]

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[100] ANPA pointed out that Donnelley's TYP directory, published by Donnelley Directories, a Dun & Bradstreet subsidiary, is a particularly well-done sample. ANPA, *The Media Triangle*, 14.

[101] Although this charged information is called Talking Yellow Pages, it comprises various kinds of general information and has nothing to do with the listings or the advertisements inside the Yellow Pages.

[102] "The Donnelley Directory Introduces the Talking Yellow Pages," 1987 brochure. Donnelley Directory is a company of The Dun & Bradstreet Corporation.

2.3.4 Situation and strategy of newspapers' audiotex service[103] (Talking Newspapers) and competition with TYP

2.3.4.1 Outline of Talking Newspapers

As of June 1990, more than forty daily newspapers in North America are providing "talking" services (information-provision over the telephone). Audiotex Group Survey of suppliers projected that some 200 newspapers would have services (Talking Newspapers) in one year. As for the market size of Talking Newspapers – which includes local pay-per-call 976 service, national 900 number service, free sponsor-supported 800 number service, advertiser-sponsored "talking" directories, and operator-assisted business referral – John F. Kelsey, III, managing director of The Audiotex Group (a consulting firm specializing in voice service), estimates the market to be a "$600 million business [about 1.5 percent of the total advertising revenue of newspapers and yellow pages in 1989, see Table 2-1] that is expected to grow into a $1.5 billion business by 1994."[104]

Currently, newspaper publishers provide services similar to TYP to directory publishers. For example, the *New York Times*, *Newsday* (New York), the *Boston Globe*, and about a dozen others are experimenting offering information from horoscopes to bond market rates to the answers to crossword puzzles" by using 900 numbers. *Newsday*, gets revenue from the advertiser, makes available voice mailbox to classified advertisers for free, and then charges respondents $1.50 for the first minute and

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[103] There are some terms related to transmission of voice through telecommunications. For example, *Voice Messaging* is also known as "voice mail" or "voice store and forward," which have capabilities to redirect the message to another person on the system, and *Audiotex* means the passive systems that play recorded messages over the telephone, like those commonly used for time and weather. ANPA, *Strategic Tools for the 1990s*, Report No. 2: *Voice Information Services*, Report of ANPA's Telecommunications Opportunities and Strategies Task Force (Washington, D.C.: The Newspaper Center, 1989), 8.
This paper does not highlight the technological differences between these terms and regards them as simply meaning providing voice over the telephone.

[104] Conhaim, Wallys W., "Talking Newspapers Voice Services Help Newspapers Provide Information on Demand," *Information Today* 7, no. 6 (June 1990).

$0.75 for each additional minute.[105] (Not only newspapers but also magazines such as *The New Yorker, Time, Business Week,* and others put the telephone numbers in their advertisements so users can, through prerecorded messages, obtain more information about specific advertisers. For example, "the *New Yorker* encourages readers to dial 1-800-Tilley to 'receive personalized information about quality products and services offered in the pages of the *New Yorker.*' "[106]

2.3.4.2 The strategy of newspapers toward Talking Newspapers

The appeal of audiotex service[107] for newspapers appears to be that more interest is generated in the newspaper's content; also, the revenue generated from each page of the paper increases, and the start-up cost for the service is relatively minimal. For example, Associated Press (AP) charges newspapers participating in its test just $500 to cover administrative and accounting costs.[108]

As for the purpose of providing some audiotex services, ANPA said that "the real significance of TYP [and also newspapers' audiotex service] may lie in their power as a market development tool and that regardless of whether such directories are a financial success, they may acclimate both advertisers and readers to new ways of using the telephone. . . ." ANPA indicated that TYP "*could be a transitional*

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[105] Veronis, Christine Reid, "The New 900 Numbers," *Presstime* 12, no. 6 (June 1990), 24.

[106] ANPA, *The Media Triangle*, 13; ANPA, *Voice Information Services*, 5.

[107] ANPA indicated that "there is almost no need for an operator-assisted audiotex directory since ANPA found poor call volumes, problematic technology, and too-intensive labor concerning that type of audiotex service from one newspaper's attempt." So, ANPA seems to highlight mainly the audiotex service with recorded messages. ANPA, *Strategic Tools for the 1990s*, Report No. 1: *Electronic Publishing*, Report of ANPA's Telecommunications Opportunities and Strategies Task Force (Washington, D.C.: The Newspaper Center, 1989), 5.

[108] Veronis, "The New 900 Numbers," 24.

device, smoothing the way to fully electronic classifieds and other electronic services."[109]

A recent article in *Information Today* reports that "[v]oice is just one of a number of strategies newspapers are applying to tailor their products to increasingly fragmented audiences and to meet advertiser interests in targeting their messages."[110] Kathleen Criner, vice-president for Telecommunications Affairs of the America Newspaper Publishers Association, spoke about structural changes in the media environment "that are challenging newspapers to respond with services that provide consumers with detailed information and advertisers with the targeted results they seek." She continued, " 'VIS [voice information services] seem to be one of the most promising tools.' "[111]

2.3.4.3 Competition with Talking Yellow Pages

It turns out that both TYP and the newspapers' audiotex services have much in common in content. The electronic publishers (including newspapers) are said to fear that "phone companies will launch electronic publishing services, erode classified and advertising bases, and enjoy an information monopoly with a wire into every home. . . ."[112]

On the other hand, John F. McLaughlin of PIRP said that "in the short term, at least, the greater competitive threat that print directories and newspaper classifieds face may come more from look-alike rivals (print advertising media) than from new technologies" (here, "new technologies" means TYP or newspapers' audiotex services).[113]

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[109] ANPA, *The Media Triangle*, 14.

[110] Conhaim, "Talking Newspapers Voice Services Help Newspapers Provide Information on Demand."

[111] Ibid.

[112] Aumente, *New Electronic Pathways*, 131-32.

[113] McLaughlin, "Talking Yellow Pages," 5.

2.4 Comparison of Above-mentioned Examples of Videotex Services and TYP

The examples of information services examined in sections 2.2 and 2.3 have different *price structures*, different *targets*, and different *methods of delivering information*, such as audiotex and videotex (called "presentation format" in this paper). These examples of information services are sorted out by *type of support* (do advertising revenues share the cost of the service, or do users pay fully for the service), *type of target* (the average consumer or business customer), see **Figure 2-2**), and *presentation format*.

Examples of printed information sources are the Yellow Pages and similar directories, such as business-to-business yellow pages (B-to-B YP), which include the headings used for business purposes. Consumer yellow pages are targeted for consumer use,[114] and specialized directories are targeted for a particular group, for example, elderly people.

Audiotex services including Talking Yellow Pages (TYP) and Talking Newspapers (TNPs) are still supplementing printed yellow pages or newspapers. TYPs supplement printed yellow pages, helping publishers to retain old and win new advertisers. Audiotex service can help newspaper publishers increase their revenue per page of newsprint.[115]

Most information provided through TYP and TNP services is provided to users free of charge (they pay only for the telephone calls); however, some specialized information such as mortgage rates, horoscopes, and answers to crossword puzzles is provided through 900 numbers, so users

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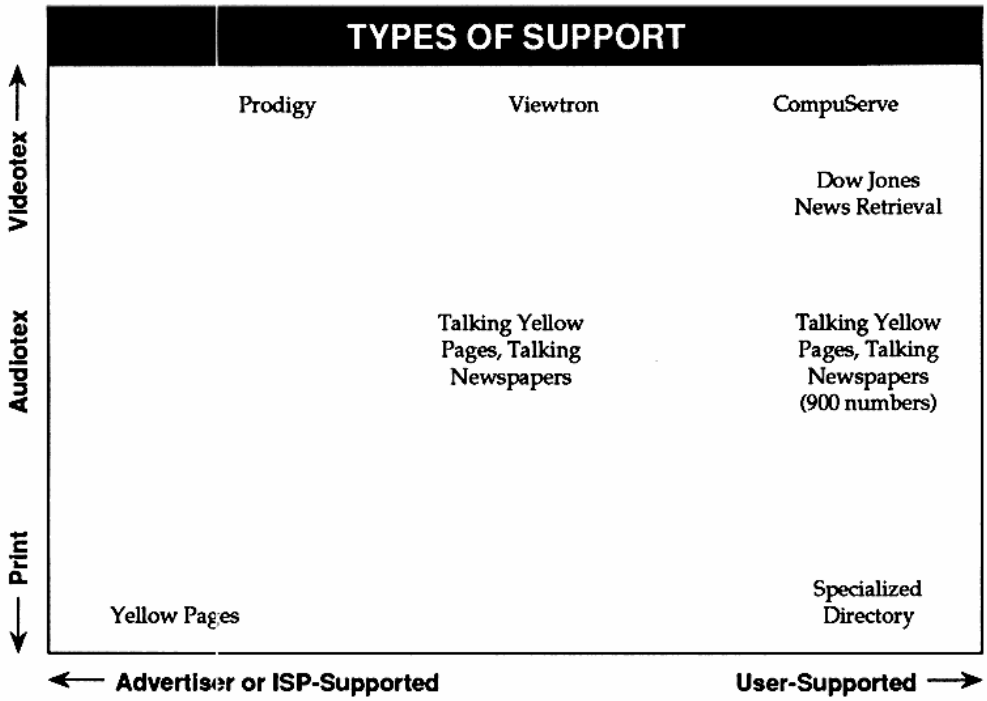
[114] For example, B-to-B YP does not have listings for pizza delivery, dentists, or beauty salons. Consumer YP does not have listings for a shipyard or a steel manufacturer. "Network Business Story 8: Success in Advertising Network in the 1920s," *Gekkan Advertising*, November 1988, 63.

[115] See section 2.3.2 in this chapter; see also ANPA, *The Media Triangle*, 13, 22.



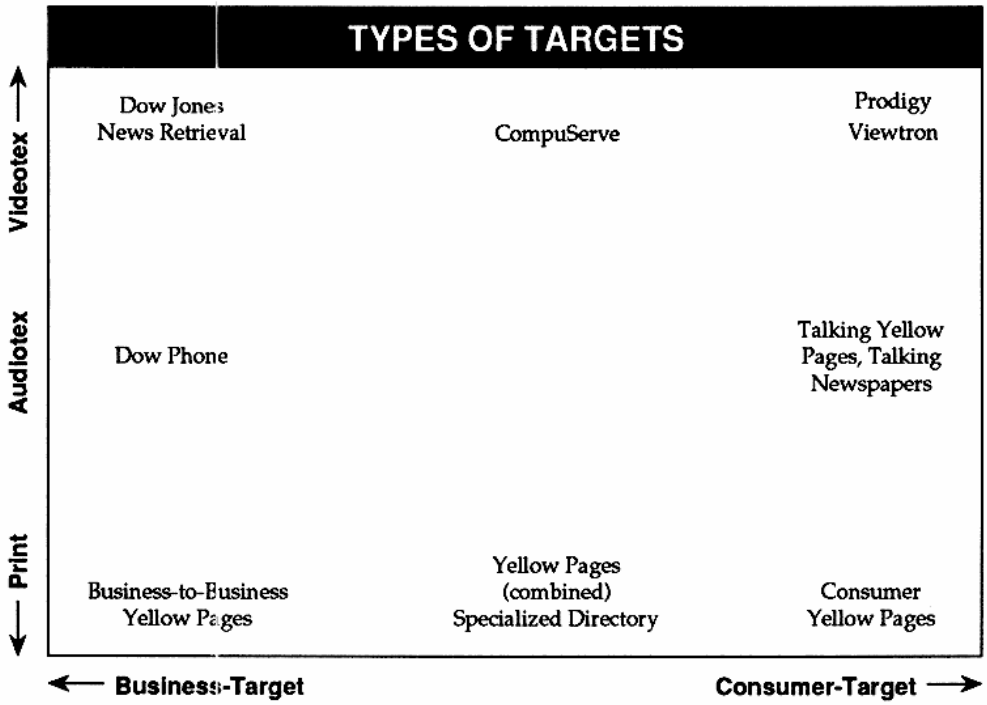


Figure 2-2

The Information Business: Types of Support and Targets

are charged for such information.[116] According to a June 1990 article in *Information Today*, "Many newspapers, even those now providing advertiser supported services, are considering pay services as a revenue generation tool for the future."[117]

In videotex services, Viewtron was advertiser-supported, but in the beginning of the service, the user had to buy an expensive terminal in order to receive the service.[118] Viewtron targeted the consumer market as a national market big enough to support the service of Viewtron; as a result, the market was said to have been overbuilt.[119] CompuServe attracted well-educated "characteristic Yuppie types" as the typical user nationally,[120] and the service is fully supported by the users.

Prodigy, also consumer-oriented, is aiming at the big national market as well.[121] On the other hand, as discussed above Prodigy turned out to be less appealing to the more sophisticated computer user.[122] The advertising revenue of Prodigy helps keep its monthly user fee relatively low.[123]

As for advertiser-supported media, ANPA's Telecommunications Department reported, "With only a few notable exceptions, newspapers found that while large advertisers were willing to invest some R&D dollars, they were unwilling to make lasting commitments or to divert

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[116] Conhaim, "Talking Newspapers Voice Services Help Newspapers Provide Information on Demand."

[117] Ibid.

[118] See section 2.2.1.2 in this chapter; see also Aumente, *New Electronic Pathways*, 55.

[119] Ibid., Aumente, 55, 58.

[120] See section 2.2.2.1 in this chapter.

[121] Sherman, "The Prodigy Service: A Glimpse of the Future"; and Tyson (May 22, 1989) (NEXIS).

[122] *Computer and Software News*, "Prodigy Is Low-Cost Videotext."

[123] See section 2.2.3.1 in this chapter.

funds from other, established media. Fully ad-supported services, like public access videotex, could not survive under these circumstances."[124]

Finally, Dow Jones News Retrieval (DJNR) includes in its service the content of a 20-volume encyclopedia, daily updates of foreign and national news, and weather reports, plus well-combined information such as "an investment analysis of a company, a news alert on a world event that affects the firm . . . [and] an instant stock quote."[125] DJNR has been successful in its pursuit of the business market.[126] But the price of this fully user-supported service is clearly beyond the reach of the general consumer market.[127]

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[124] ANPA, *Electronic Publishing*, 6.

[125] Aumente, *New Electronic Pathways*, 70-71.

[126] Conhaim, "Talking Newspapers Voice Services Help Newspapers Provide Information on Demand."

[127] Aumente, *New Electronic Pathways*, 71.

CHAPTER THREE

MINITEL IN FRANCE

3.1 The Background of Minitel

In France, by contrast with the case in the U.S., France Telecom (FT), the government's telecommunications authority, has been playing a key role in strengthening the videotex industry. "The French videotext strategy was designed over several months in 1977 and 1978, and was closely linked with the major decision to modernize the French Telecom [telecommunications] system that took place in 1974." At that time, the telephone installation rate was extremely low in France compared with other western countries. Also, the number of installed telephones was fewer than 2 million lines for 50 million people. A joke went like this: "[A]bout half of France was said to be waiting for installation and the other half of France was waiting for a dial tone."[128]

In the late 1970s, FT (at that time called the Direction Générale des Telecommunications, or DGT) decided to build a nationwide videotex network for several reasons. First, FT considered the "American computer industry and the Japanese customer premise equipment and electronic industries" major threats to the French economy, and FT also recognized that France was behind Prestel of Great Britain in the international videotex market. Therefore, FT felt it was necessary to develop a strong national data processing industry and its related fields, such as a computer equipment manufacturing industry, to keep up with the U.S. and Japan. The principal worry was the projection of overcapacity of France Telecom and the customer premises equipment (CPE) industry anticipated for the early 1980s, so at the same time FT intended to increase the user traffic through the network.[129]

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[128] Ghesquière, *French Minitel*, 5.

[129] Ibid., 6-8.

Second, FT wanted to cut down the expense of producing paper directories. At the same time, there was an agreement between FT and the government that something had to be done with massive industrial layoffs resulting from saturation of the telephone network. FT decided to direct this excessive industrial force to build a nationwide videotex network.[130]

FT chose to distribute free of charge the terminals with which to access Minitel,[131] the Electronic Directory Service (EDS) database, including the nationwide subscriber listings, because service providers were reluctant to invest in the development of videotex services until a database had been installed. Free distribution of terminals had two merits for FT. First, FT could maintain the leadership and control over the "whole infrastructure of the French videotex system, terminal included." Second, FT could reduce its risk in the project by "socializing" the risk; by distributing free terminals, FT did not allow users to make a decision to invest in it, so FT could reduce the likelihood of market failure.[132]

3.2 Outline of Minitel's Service

Minitel's service can be divided into four categories. *Information* includes news reports, an electronic directory service, bulletin boards, and so on. *Communication* includes a chat service and E-Mail. *Transaction* includes home banking, reservations, and retail and catalog ordering. And *Entertainment* includes a chat service and games.[133]

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[130] Ibid., 6, 8.

[131] Originally, *Minitel* referred to a terminal used in the French videotex system, but currently it is often used outside France as the generic term referring to the overall service.

[132] Ghesquière, *French Minitel*, 7.

[133] Ibid., Appendix B, "Examples of Consumer Videotext Applications."

These four categories of services are provided through three primary price schedules, called access levels. In Teletel 1[134] – the oldest access level, started in Velizy in 1974 – the service provider charges users a network connection fee ($1.20 per hour), which is lower than FT's charge ($3.00 per hour). The difference ($1.80) is paid by the information service provider (ISP). Teletel 2 services were introduced in mid-1983, and users were charged the full price ($3.60 per hour) for network connect time. Further, ISPs may earn revenue by charging users monthly or annual subscriptions.

Teletel 3, known as "kiosque," or "newsstand, is the most popular access level. "It does not require any form of subscription or advance sign-up" by users, and allows service providers to get a higher fee than France Telecom's network charges. Users pay a fixed connect fee ($9.60 per hour), roughly three times FT's network charge ($3.60). FT is in charge of billing the user and monthly remits the difference ($6.00) between the full amount paid and the network fee to the ISPs. Teletel 3 was introduced in 1984 by strong request from some service providers who failed to attract many users because of the initial subscription cost and lack of opportunities for users to try out the service. The first time ISPs could get revenue through FT was with Teletel 3. See **Table** 3-1 for pricing of these three access levels. "In 1988, [FT] added at least eight different kiosque type billing levels [to Teletel], with user prices ranging from $8 to $75 per hour."[135]

In EDS, users can look up a telephone number using both the name (white pages) and the headings, or business categories (yellow pages), and they can get the right number even if they make spelling mistakes to some extent. Users can use EDS free of charge during the first three minutes, and they are charged $0.07 per minute thereafter. Subscriber listings are accompanied by three kinds of advertisements: *Module* consists of three lines, *Catalogue* has detailed information with more

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[134] Although *Teletel* refers to the service provided through the network, in this paper *Teletel* and *Minitel* are used interchangeably.

[135] Ghesquière, *French Minitel*, 11-12, 17.

than three pages, and *Band* occupies empty space under the public organization entries.[136]

Table 3-1

Pricing and Services for Teletel Access Levels

PRICING	TELETEL 1	TELETEL 2	TELETEL 3
User price per hour	$1.20	$3.60	$9.60
Service provider revenue (charges)	($1.80)	$0.00	$6.00
France Telecom revenue	$3.00	$3.60	$3.60

TYPICAL SERVICES	TELETEL 1: INFORMATION	TELETEL 2: TRANSACTION	TELETEL 3: ENTERTAINMENT
Examples	Management Business	Banking Chat line Home shopping Travel schedule	Media Chat line Home shopping Education Business
Target Market	Professional	Professional and consumer	Consumer

Source: Adapted from Gilles Ghesquière, *French Minitel: Strategic Lessons for Videotext in the U.S., 1989–90*, Benjamin Compaine, ed. (Larchmont, N.Y.: Communications Trends, Inc., 1989), Table 2.2.

As for terminal distribution, FT's original strategy was to replace all the paper directories with Minitel terminals, but this was changed as a result of government and management changes at the head of FT. As it turned out, FT let users choose whether they wanted to use the paper white pages to look up numbers or the terminal to access the database of telephone subscribers. From the start, FT regarded Minitel as the

[136] NTT internal report, *The Present Situation of Electronic Directories in Europe* (September 1988), interview with France Telecom; NTT internal report, *The Present Situation of the Electronic Directory in France Telecom* (September 1989), interview with France Telecom.

replacement of white pages but not of yellow pages; EDS, a part of Minitel service, was designed for use to check telephone numbers of the businesses or the people that users already knew by name. A survey showed that 80 percent of EDS users were looking for telephone numbers by name.[137]

3.3 The Position of Paper Directories in the Market

According to Jean Louis Pallu, general manager of ODA (French Yellow Pages), "France Telecom, and its sales agent, ODA, introduced the yellow pages in France 10 years ago and expects revenues in 1990 to top $700 million. . . . ODA is jointly owned by FT and Havas, an advertising agency." According to Pallu, "Until the introduction of the yellow pages, most of the revenues came from white pages. . . . Along with its local directories, ODA has an electronic directory, a French business-to-business book[138] and Europages, a business-to-business book that covers 11 countries, including Italy and Germany."[139]

The advertising revenue in 1988 amounted to $567 million (2.7 billion francs).[140] In 1988, FT's advertising revenue from both paper directories and EDS accounted for about 9 percent of the total advertising revenue in France, which was second largest next to TV among other media in France, and FT's directory advertising revenue accounted

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[137] Ghesquière, *French Minitel*, 8; NTT 1988 internal report, *The Present Situation of Electronic Directories in Europe*.

[138] It is called the "B-to-B Directory," a kind of Yellow Pages that consists of particular headings that are likely to be used for business purposes.

[139] Pallu, Jean Louis, *Inside the Yellow Pages Conference, 1990 Proceedings: Speaker Summaries* (Larchmont, N.Y.: Communications Trends Inc., 1990), 12. The conference was held in San Francisco from March 4-6, 1990.

[140] One Franc is equivalent to $0.21 dollar.

for 3 percent of FT's revenue.[141] EDS revenues should reach $70 million in 1990, a 30 percent increase.[142] (The advertising revenue of EDS was expected to be about 10 percent of the revenues of the paper directory advertising.)[143] With the introduction of Minitel, total advertising revenue increased.[144]

FT's strategy is to make the best use of both paper and electronic directories and to produce the utmost revenue. It puts a mark on its paper directories that means "refer to EDS for more information." Thus, FT lets the directories compliment each other and also expects more revenue from the telephone calls users make to contact businesses after using EDS.[145] As reported in a 1988 *New York Times* article, Minitel is "unlikely to replace the newspaper as a source of news and classified advertising."[146] Currently, FT distributes yellow pages to every household, and users can choose between the white pages or a Minitel terminal. FT obtains revenue through the sales of subscriber listings, mainly to telemarketing companies.[147]

In France, there are privately published directories as well as FT's directories. The private directories have more focused targets than FT's directories, such as residential and business users, and they are mostly sold, while FT's are distributed without charge. There are about 30 such publishers, and they need FT's approval to publish the private

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[141] NTT 1988 internal report, *The Present Situation of Electronic Directories in Europe.*

[142] Pallu, *YP Conference, 1990 Proceedings*, 12.

[143] NTT 1988 internal report, *The Present Situation of Electronic Directories in Europe.*

[144] NTT 1989 internal report, *The Present Situation of the Electronic Directory in France Telecom.*

[145] Ibid.

[146] Markham, James M., the *New York Times,* November 8, 1988, sec. D, Late City Final Edition.

[147] NTT 1989 internal report, *The Present Situation of the Electronic Directory in France Telecom.*

directories. Most of these directories cover much smaller areas, and their circulation ranges from the hundreds to the thousands.[148]

3.4 Usage of Minitel

The total traffic shows 394 percent growth between 1985's 14.9 million connect hours and 1988's 73.4 million hours (see **Table 3-2**). In a comparison of annual growth with the previous year, the total traffic increased by 151 percent in 1986, by 65 percent in 1987, and by 19 percent in 1988. The rapid growth in 1986 can be attributed to the growth of Minitel installation in that year, which was 91 percent over the previous year. The decrease in traffic in the following two years also corresponded to the decrease of the yearly installed terminals.[149]

The traffic of each service in Minitel shows a tendency similar (the growth rate is highest between 1985 and 1986 and then drops) to that of the total traffic. As illustrated in **Table 3-2**, the growth of connect hours to EDS was highest in 1986 at 100 percent. It then dropped to 39 percent in 1987, and to 33 percent in 1988. The traffic for Teletel 1 showed 32 percent growth in 1986, 6.9 percent in 1987, and 26 percent in 1988. The growth of traffic for Teletel 2 was 217 percent in 1986, 144 percent in 1987, and 50 percent in 1988. For Teletel 3 it was 192 percent in 1986, 60 percent in 1987, and 3.2 percent in 1988.

As for the share of each service in connect hours, EDS occupied 24 percent in 1985 and 18 percent in 1988. Teletel 1 occupied 14 percent in 1985 and 5 percent in 1988; Teletel 2, 12 percent in 1985 and 28 percent in 1988; and Teletel 3, 50 percent in 1985 and 49 percent in 1988. Except for Teletel 2, the share of other services went down. As shown in **Figure 3-1**, EDS is the clear choice of Minitel's new users.

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[148] Ibid.; see also NTT 1988 internal report, *The Present Situation of Electronic Directories in Europe*.

[149] Ghesquière, *French Minitel*, 18 (Table 2.1), 22, 23 (Table 2.4).

Table 3-2

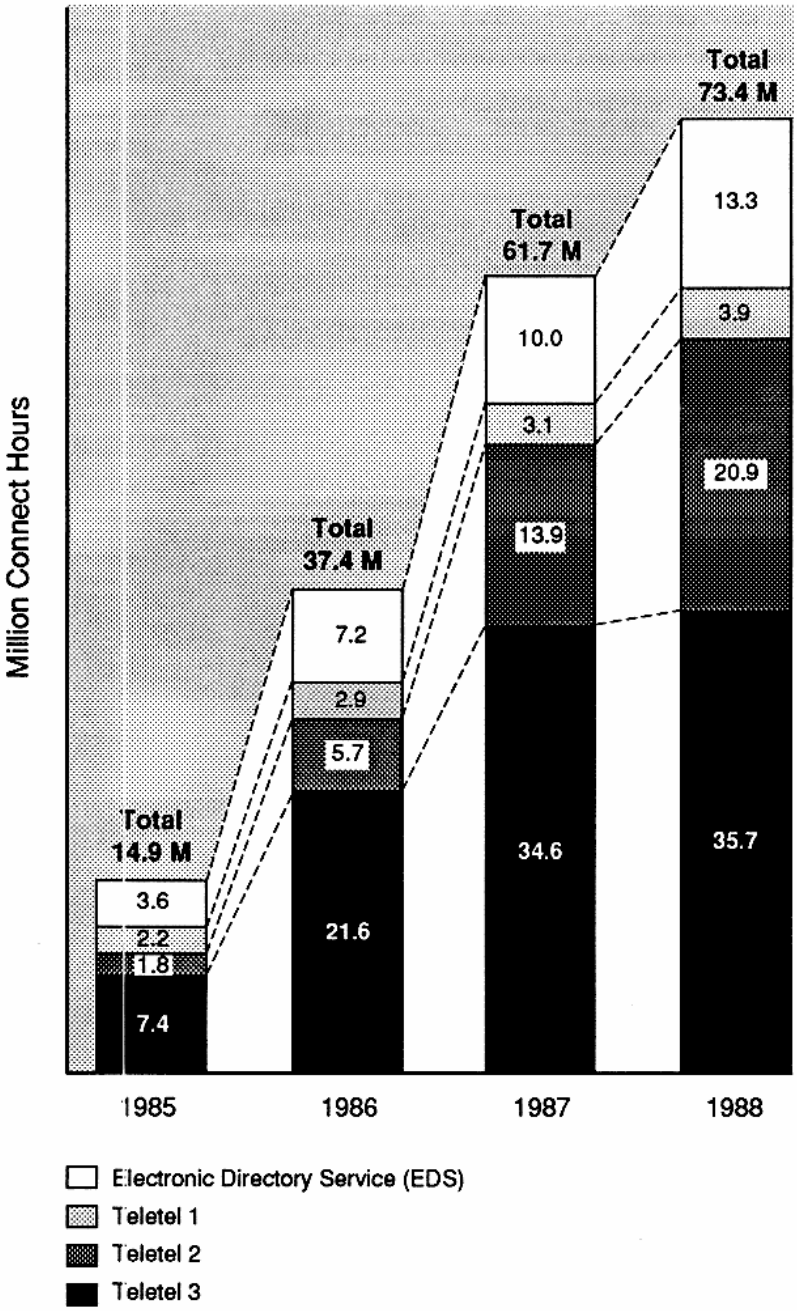
Teletel Traffic, 1985-1988

YEAR	1985	1986	1987	1988
Electronic Directory Service				
Million connect hours	3.6	7.2	10.0	13.3
Share of total (percent)	24%	19%	16%	18%
Growth Rate	—	*100%*	*39%*	*33%*
Teletel 1				
Million connect hours	2.2	2.9	3.1	3.9
Share of total (percent)	14%	8%	5%	5%
Growth Rate	—	*32%*	*6.9%*	*26%*
Teletel 2				
Million connect hours	1.8	5.7	13.9	20.9
Share of total (percent)	12%	15%	23%	28%
Growth Rate	—	*217%*	*144%*	*50%*
Teletel 3				
Million connect hours	7.4	21.6	34.6	35.7
Share of total (percent)	50%	58%	56%	49%
Growth Rate	—	*192%*	*60%*	*3.2%*
Total				
Million connect hours	14.9	37.4	61.7	73.4
Share of total (percent)	100%	100%	100%	100%
Growth Rate	—	*151%*	*65%*	*19.0%*

Source: Adapted from Gilles Ghesquière, *French Minitel: Strategic Lessons for Videotext in the U.S., 1989–90*, Benjamin Compaine, ed. (Larchmont, N.Y.: Communications Trends, Inc., 1989), Table 2.1.

But in contrast to the growth of total traffic, the average traffic per terminal dropped to 80 minutes in 1988 from 93 minutes in 1987 – a 14 percent decrease.[150] In 1988, "8 percent of Minitel's in households [were] not used at all," (representing about 338,000 abandoned terminals), and about 28 percent of the users utilized Minitel only to access EDS. An estimated 62 percent of Minitel use is for consumer

[150] Ibid., 23.



Source: Data from Gilles Ghesquière, *French Minitel: Strategic Lessons for Videotext in the U.S., 1989–90*, Benjamin Compaine, ed. (Larchmont, N.Y.: Communications Trends, Inc., 1989), Table 2.1. Graphic: © 1992 President and Fellows of Harvard College. Program on Information Resources Policy.

Figure 3-1

Minitel Traffic, 1985–1988

purposes.[151] And 42 percent of the traffic from office-located Minitels is private traffic.[152] Much of the consumer use of Minitel has been for the chat service.[153]

3.5 Global Strategy of Minitel

French Telecom stated that its goal "is to establish transAtlantic and global communications between service providers and mass markets around the world."[154] FT has already offered users access to the Minitel service in the United Kingdom, Belgium, Germany, Italy, and Japan.[155] It is now in the process of establishing a network in the U.S. through a joint venture with RBOCs to make use of their gateway service. As a result, businesses can choose the gateway or the countries where they want to list their services in the French Minitel Directory.[156] That is how FT plans to offer big business opportunities to companies preparing to enter the larger European market by connecting the seller and buyer in 1992, when the unification of the European Community takes place.

In the U.S., Minitel USA, Inc. (a 100 percent investment by Intelmatique, a part of FT), has been seeking partners whose gateway services would allow users in the U.S. to access Minitel services in France. Minitel USA has three aims, according to its president, Hilary Thomas. First, it seeks to promote usage of Minitel services in France. It lets users access French services through Minitelnet, Inc., a gateway

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[151] Ibid., 30, Figure 2.7.

[152] Ibid., 31.

[153] Ibid., 1.

[154] Minitel USA, Inc., "Corporate Background" publicity material, May 10, 1990.

[155] "Five Millionth Minitel Videotex Terminal Delivered in France," Business Wire, Purchase, New York, February 14, 1990.

[156] "Minitel Services Introduces Electromarket Services to Corporate America," Business Wire, Purchase, New York, May 24, 1989.

to the Minitel services in France, for 42 cents per minute. Second, it makes the expertise of FT available to network operators through consulting. The third and most important role for Minitel USA is to create partnerships with American companies that will help to develop the Minitel standard in the U.S.[157] As of September 1990, Minitel USA has contracts with all RBOCs except Ameritech.

Another company engaged in extending Minitel in the U.S. is Minitel Services Company, invested by Infonet and Minitel USA. The role of Minitel Services Company is to attract ISPs to its gateway system by offering them 45 percent of the revenue for the gateway. Minitel Service Company provides both French and U.S. information to users in France and the U.S. As a result, users of information from both countries can access the database.

FT uses a different strategy from that used in the U.S. to extend its Minitel services. It offers PC users "free software that allows IBM PC, IBM compatibles, Apple Macintosh II and Commodore computers" to function like the Minitel terminals, or the user can spend $500 on a Minitel terminal.[158] Users of these PCs who are furnished with Minitel software can access the service for the cost of a local phone call.[159] The Minitel software can convert "traditional computer keyboard commands, which are different across each computer application, to a simple standard touch button interface. . . ." It can also create "a colorful menu-driven graphic interface that allows users to navigate through complex computer applications and services with eight simple touch keys on a [PC] or Minitel terminal."[160]

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[157] Page, Bruce, "Minitel Moves to America: The Search Continues for a Viable Model for Videotex in the U.S.," *Network World* (February 6, 1989), Comnet Show Special.

[158] Business Wire, "Minitel Services Introduces Electromarket Services to Corporate America."

[159] "Minitel Services Launches Big Push into the US Viewdata Market," *Computergram International*, no. 1117 (May 17, 1989) (NEXIS).

[160] Business Wire, "Minitel Services Introduces Electromarket Services to Corporate America."

Minitel Service Co. offers ISPs an access link to the Minitel network for about $1000 per month. ISPs can focus on some areas by choosing among several distribution channels including BOCs' gateways in the U.S. and the gateways to French services and other European service areas. The Minitel user worldwide can dial local phone numbers and then be connected to any network or service they like.[161] Minitel Service Co. charges users an average of $10.20 per hour, from which the company takes $1.20 per hour for its billing service, plus another $4.50 per hour for itself, leaving ISPs with $4.50 per hour plus "any additional transaction charge they choose to impose." ISPs need "people to spend 200 hours a month" before they can start making money.[162]

Thus, FT has a definite strategy to expand its Minitel service worldwide by connecting many various networks and extending the terminals with the standard function. It concentrates on remaining a facilitator of information services and lets as many ISPs as possible enter their network.[163] At the same time, FT plans to increase international traffic on the leased circuit. The extension of Minitel service helps to achieve this purpose, because the increase in Minitel users who access the database in other countries contributes to the traffic growth, too.

3.6 Minitel's Current Problems

As a business venture, Minitel currently faces the following problems. The relationship between these problems and their causes is shown in **Table 3-3**.

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[161] "Minitel Services Co. Seeking Providers for Its Worldwide Distribution Network," *IDP Report* 10, no. 7 (May 19, 1989).

[162] *Computergram International*, "Minitel Services Launches Big Push into the US Viewdata Market."

[163] Vincent Lobry, vice-president of New York France Telecom, telephone conversation with author, October 9, 1990.

Table 3-3

Minitel's Current Problems

PROBLEMS	CAUSES
1. Low use	■ Hard to use ■ Expensive (services)
2. Cost burden	■ France Telecom distributed terminals to users free of charge
3. Morality of chat service	■ Users like the chat service ■ France Telecom concentrates on remaining a facilitator
4. Shortage of market information for ISPs	■ France Telecom concentrates on remaining a facilitator

3.6.1 Low usage

The growth rate for the average usage per terminal had been declining and in 1988 dipped below that of 1987. The average traffic per terminal per month was 85 minutes in 1986, a 35 percent increase over the previous year. In 1987 the average traffic was 93 minutes, a 9 percent increase, and in 1988 it was 80 minutes, a 14 percent decrease from 1987. According to FT, about 8 percent of the Minitels in households are not used at all, which partly contributes to Minitel's financial problems. In 1988 the percentage of heavy users of Teletel 3 dropped to 3 percent from 9 percent in 1985.[164]

Minitel's low use can be attributed to several factors. First, most households had already passed the discovery phase when they showed great interest in the entertainment services. Since Minitel services were first offered, the number of installations peaked in 1987; these users were absorbed in the entertainment services before receiving their first bill, which alerted them to the actual cost of such services. Fifty-nine percent of the total consumer traffic in 1987 was for games and chat services. Until 1987, the large number of installations added to

[164] Ghesquière, *French Minitel*, 1, 23 (Table 2.4), 33.

the traffic growth supported by the use of entertainment and chat services. But the trend was difficult to maintain. In 1988, the decline in the number of installations and in the usage of the above-mentioned services caused a decrease in traffic. The low usage of late-adopters of Minitel, who were less interested in the entertainment services and more cautious during the discovery period, also added to this traffic decrease.[165]

The second reason for the low usage of Minitel, according to a user survey, is that potential users have no perception of available applications or of their needs.[166] The survey by the MV2 Conseil in 1986 and 1988 states that "users could only mention spontaneously an average of 3.2 different names of videotext services, including the Electronic Directory Service, of the 8,000 services available."[167] FT did not adequately inform the user of "1) what service categories are available; 2) how services differentiate themselves within each category; and 3) how they can be accessed." Actually, until late 1987, no online videotext service guide was available, and FT never tried to promote particular services that it believed could improve Minitel's market position. This problem derived from the perception that FT is the mere facilitator of information, not the provider. Promotion of the service is up to individual ISPs.[168]

The third reason is that Minitel services are cumbersome to use. FT provided users with three access levels and EDS with four telephone numbers, but the four services were not interconnected; users had to call four different phone numbers for each of the four services, including EDS. In addition, FT did not offer browsing capabilities and training on the services, which would have helped the user become familiar with both the terminal and the services. In addition to the

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[165] Ibid., 32--33.

[166] Ibid., 44.

[167] Ibid., 34.

[168] Ibid., 44--45.

applications' defects, the terminals themselves were not user friendly. FT had to keep the terminals' production cost to a minimum since they are distributed to users free of charge, which imposes severe cost constraints on FT. These basic Minitel terminals did not have elaborate graphics capability, which was restricted in part by the 1200 baud network speed. To keep investing billions of dollars in the same inexpensive terminal for more than ten years, especially in the face of constantly changing technology, was an "ill-considered" or "poorly calibrated" decision. These terminals could not automate the network connection process and so required more connect time than did PCs with higher capabilities. The limitations of these terminals – screen size, modem speed – helped prevent the growth of usage of Minitel's services.[169]

Finally, at nearly $10 per hour, Teletel 3 pricing was too high for entertainment. At that rate, the services were not competitive with alternatives; for example, for about $10, a consumer could use Teletel 3's entertainment services for an hour – or buy two movie tickets. Very few users were willing to pay that price for Minitel entertainment on a regular basis. Until 1988, FT failed to reduce the prices for Teletel 3. Also frustrating to users were the terminal's low transmission speed and the service applications' defects, since users are charged on a time basis.

3.6.2 Burden of cost

The financial model, which covers the twelve-year period from 1984 to 1995, was co-developed by France Telecom's research arm, CNET, and a financial division, DPAF. According to the financial model, the margin was projected to be $800 million. "[T]he savings on the paper directory and the directory assistance service represent only 7% of [FT's] expected revenue, . . . in contrast to the initial 1978 [financial] projection that these economies would cover the expense of free distribution of the Minitels [terminals]."[170]

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[169] Ibid.

[170] Ibid., 36.

"On the other hand, [EDS] advertising and Minitel leasing revenues are expected to account for a substantial part of [FT's] revenues. But the cost of the Minitels [terminals] themselves will account for more than half the total expenses of running Teletel. . . . According to [FT's] analysis, Minitel is not expected to achieve breakeven on an operating basis until 1994."[171]

There are some points that were not specified by FT in that financial model. First, FT "[did] not specify the model's assumptions." For example, FT did not specify the number of the Minitel terminals expected to be distributed or the projected volume of traffic. Second, the model did not consider all the expenses for all the prior investment including the research and development costs. Further, the expense estimated for Minitel terminals ($1.5 billion) appears to have been too low to cover the current objective number of the terminals, which is 8 million.[172]

The outcome of the financial model can be looked at in another way. "[A]ccording to figures from both FT and Quadrature, a consulting firm, in 1987 between 36% and 40% of the terminals were either not used or were used exclusively for directory services." If the lower figure is applied to the number of the terminals in 1988, terminals with this kind of use amounted to 1.5 million, representing $378 million uncovered cost. According to the financial audit of the Cour des Comptes, a French independent audit administration, the deficit of Minitel by the end of 1987 was $900 million. "The report notes that 'The choice of the free terminal distribution has led [FT] to take an important financial risk.' " On the other hand, the report argues that Transpac's revenues from its packet switching network were not included in the Cour des Comptes figures.[173] As to the projection of deficit, a report by the Court of Accounts, "an elite budgetary watchdog agency that answers

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[171] Ibid., 37.

[172] Ibid., 36--39.

[173] Ibid., 38--39.

directly to the French president," predicts that Minitel's deficit will reach about $1.3 billion by 1995.[174]

The Cour des Comptes report suggests that FT should "carry out its plan to lease the terminals for $1.60 per month starting in 1990." But the result of the survey shows that 54 percent of the users would return the terminals if they were charged $2 to $4 per month.[175]

3.6.3 Inflexible pricing structure for ISPs

Another fundamental problem is the pricing structure for ISPs. The current time-based pricing structure is not adapted to services like transactions because the better the service, the shorter the connection time needed for users to finish transactions. Teletel 3's "unique pricing structure of $10 for users, $6 of which was revenue for the service provider, was not appropriate to both entertainment and transaction providers." This pricing is perceived as too high by users of entertainment services but too low by many ISPs with high operation costs and value-added service. This inflexible fixed price is not thought to motivate competition among ISPs, and it causes an imbalance between the chat service, with a comparatively low cost, and transaction services, with a higher cost.[176]

3.6.4 Morality of the chat service

As with the pornographic audiotex services in the U.S. and Japan, FT is facing pressure from the public, which wants FT to take some action toward the "chat service." Much of the consumer traffic is for the chat service; new users especially tend to spend a lot of time using it.

In 1988, the chat service was offered through Teletel 3, which contributed to the increase of the consumer traffic. The estimated operating cost of the chat service kept falling from its initial cost of

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[174] Tempest, Rone, "Minitel: Miracle or Monster?" the *Los Angeles Times* (October 24, 1989), Home Edition.

[175] Ibid., 38--39.

[176] Ibid., 47--48.

$2.50 per hour and per user connected in 1984, until it settled at about 60 cents in late 1987 for high-volume services. This price decrease helped the service become more profitable, so in September 1988 FT finally reduced the service's price from $10 per hour to $8.30 per hour, which in turn reduced FT's operating profit margin from 90 percent to 86 percent.[177]

As the market became more competitive, chat service providers spent almost 30 percent of their revenue in advertising to attract newly-installed users. The competition among service providers was intense, and the "nature of the advertising [was] such that some newspapers refused to carry competitors' videotext service advertising." Against a surge of chat services, consumer and religious groups waged a great campaign requesting some appropriate action by France Telecom. But still FT had no intention to control the content. Finally, in 1988, FT "took political measures to discourage the creation of new chat services and to eliminate their use for prostitution purposes. The editorial responsibility of [chat] service providers was enforced. Controls on pseudonyms and the availability of lists of addresses or phone numbers of Minitel users increased the costs to chat service providers. Their taxes were raised." FT also decided to promote business traffic rather than consumer traffic.[178]

Consequently, the traffic of the chat services dropped in 1988. On the other hand, that same year the traffic for the professional Kiosque increased. According to the ISPs, in 1988, 60 percent of Teletel 3's total traffic was for the chat service, and 22 percent of each user's total connect time was spent on the chat service. In contrast, in 1986, two of the four largest services of Teletel 3 were newspaper services, which derived half their traffic from chat applications; the other two

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[177] Ibid., 48.

[178] Ibid., 48-49.

were pure chat services, provided by ISPs who dealt with chat services exclusively.[179]

3.6.5 Shortage of market information for ISPs

Another problem is the lack of marketing information for the ISPs. Because "France Telecom did not exploit the marketing data collection potential that its unique position as terminal and gateway provider granted it," ISPs find it difficult to collect demographic and usage data. The lack of an online service directory is also a problem. "For the French service providers, one difficulty has been to inform the market of their existence and the nature of their offering." As a result, ISPs could not attract users to their services, and so must depend on the mass media to advertise their service.[180]

3.7 Lessons for the U.S. Videotex Market

3.7.1 Difference in the development of the market between the U.S. and France

When FT decided to distribute the terminal free of charge in 1978, the penetration of PCs in households was close to zero in France. But in the U.S. it was more than 20 percent (about 18 million PCs) in 1988, of which 30 percent were equipped with a modem – that is, about 6 million households could access some database.[181] In the U.S. since the late 1970s, many videotex service providers have been engaged in this business including CompuServe, Prodigy, and so on. These services went through a screening by the user; some services survived, while others had to close down because they were not accepted by the user or could not make profits during a limited time. Definitely, in the U.S., ISPs participating in the free competition could not survive without responding to the real market needs, while FT's Minitel is not purely profit-oriented. On the other hand, the U.S. market clearly lacks a

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[179] Ibid., 24.

[180] Ibid., 47.

[181] Ibid., 43, 53.

defined standard of videotex terminals. FT had no such diversity when it started the Minitel service.

3.7.2 Influence over the BOCs' entry issue

On March 7, 1988, a ruling was made by U.S. District Court Judge Harold Greene that allowed BOCs to provide gateway services. Two factors may have contributed to his decision. First, there was strong pressure on the court by the Department of Justice (DOJ), which supported the BOCs' argument in favor of removing the line-of-business restrictions. Supporters of the removal of the these restrictions, including the BOCs, argued that the restrictions were preventing U.S. consumers from obtaining the "substantial public benefits" that FT achieved with its videotex system. Second, French Minitel was an example, a model promoted by the BOCs.[182]

The perception of many regulators and, increasingly, Congress is that "videotex services ought to become universal [as FT's strategy] and that RBOCs can contribute to their quicker adoption by developing the videotext infrastructure." This vision was also supported by most state Public Utility Commissions (PUCs).[183]

3.7.3 A lesson about free distribution of terminals

In the case of French Minitel, on the basis of the economical and technological background of France, FT chose free distribution of the Minitel terminals, but in 1989 FT was faced with the necessity to alter its strategy. Although the basic Minitel terminal is free of charge, in 1990 users were charged a fee to obtain enhanced Minitel (Minitel 2) terminals.[184] A possible reason for instigating the fee could be that FT needed to solve a financial problem caused by low-usage or unused

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[182] Ibid., 59.

[183] Ibid., 61.

[184] By the end of 1990, 1 million terminals (enhanced model) were rented to users at a charge. They accounted for about 18 percent of the total terminals, about 5.6 million (including basic models, which were distributed free of charge) distributed that year. Vincent Lobry, telephone conversation with author, February 25, 1990.

terminals. It is generally realized that free distribution does not encourage the use of the service since the users may not be eager to get a return on their investment.[185]

On the other hand, in the U.S. there was no such national or social project like Minitel, and videotex companies, including service providers and facilitators, set the target and provided the services with a certain charge.

James McGowan, president of Telesource, Inc., a New York-based communications and information service, stated that RBOCs should stay as fully functioning gateway service providers in order to contribute to the foundation of the videotex industry. He believes that RBOCs should not provide "content" in order to avoid anticompetitive behavior and attract as many ISPs as possible. He also insists that as a next step, RBOCs should offer inexpensive and easy-to-use terminals. According to McGowan, it is time to ease the current regulation restricting RBOCs from designing and marketing customer premises equipment, because the restriction limits the public access to new information services.[186]

According to Joshua Harris, president of Jupiter Communications Co., a New York-based consulting company that specializes in videotex, "the key to videotex success in the U.S. is the telephone companies' investment in distributing a mass-market Minitel-like terminal."[187]

However, Benjamin Compaine, president of Nova Systems, asserts that because there is a growing base of powerful PCs in U.S. households, a videotex strategy like Minitel's "that relies on inexpensive terminals – or personal computers that emulate dumb terminals – and a centralized network defeats the advantages of the growing base of powerful personal

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[185] Tempest, "Minitel: Miracle or Monster?"; Ghesquière, *French Minitel*, 43.

[186] McGowan, James, "Lessons Learned from the Minitel Phenomenon," *Network World* (December 5, 1988), Opinions section.

[187] Page, "Minitel Moves to America."

computers in U.S. households."[188] After all, "competition in the provision of the videotext infrastructure elements should be preferred to a [government's] monopoly whenever possible."[189]

3.7.4 Terminal and network capability

FT's distribution of inexpensive terminals brings up an important question about how to share the network capability and terminal function. One way is to distribute simple, low-cost terminals as widely as possible, and the other is to concentrate the intelligence to the terminal in order to reduce the communication cost between the terminal and the host computer, just like Prodigy in the U.S. (see chapter 2, section 2.2.3.1).[190]

BOCs might have the incentive to gather the basic and enhanced function to their network. Perhaps BOCs could increase traffic (revenue) by giving the network more capability than the terminal.[191] On the other hand, as the example of Prodigy shows, in the U.S. the terminal with high-quality graphics and other functions does not necessarily promote better use. Rather, Dow Jones News Retrieval (DJNR) and CompuServe seem to capture the users' interest through quality information, such as up-to-date stock news, financial analysis, and so on.

3.7.5 A lesson about control over content

FT's stance is to concentrate on remaining a facilitator of services, even if the chat services cause a strong opposition among the public. In the U.S., some BOCs prohibit or restrict pornographic audiotex services, called "Dial It Services," using such criteria as whether the service could ruin the image of the telephone company or have a bad

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[188] Compaine, Benjamin, "Is Minitel a Good Model for the North American Market?" *Network World* (September 11, 1989), Opinions section.

[189] Ghesquière, *French Minitel*, 2.

[190] Ibid., 58--59.

[191] Ibid., 60--62.

influence on society. Some BOCs are ready to reject billing service for these audiotex service providers. But any such criteria that BOCs may adapt are likely to be subjective. The restriction or prohibition of these pornographic audiotex services by the telephone company inevitably begs the question: Are telephone companies guaranteed under the First Amendment of the U.S. Constitution the right to freedom of speech when they transmit the information? This argument is made by the telephone company in the trial of telcos-cable cross ownership issue.[192]

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[192] "Censorship by Telephone Companies of Audiotex Services," *Kaigai Denki Tsushin* (July 1989), 24.

CHAPTER FOUR

STATUS OF AND ISSUES CONCERNING INFORMATION SERVICES IN JAPAN

4.1 Regulatory Frameworks for Information Services[193]

4.1.1 Basic regulatory frameworks for telecommunications business

In Japan, according to the Telecommunications Business Law (TB Law), article 6, "a Type I telecommunications carrier provides services by owning its own 'transmission line facilities.' A Type II carrier is other than a Type I carrier. Often called a Value Added Network Service Provider (VAN), it is generally considered equivalent to an enhanced service provider in the U.S., . . . A Type I carrier can provide, in principle, any kind of 'enhanced' [tele]communications services."[194]

This chapter deals mainly with information services provided by Type I carriers, particularly Nippon Telegraph and Telephone Corporation (NTT), which provides both local and long distance telecommunications services, and whose monopolistic position in the local telephone network is said to be preventing competition on an equal basis with other telecommunications carriers.[195]

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[193] As indicated in the Preface, this chapter also focuses on content creation and provision by NTT, Japan's largest telephone company.

[194] Koike, Naoyuki, *Cable Television and Telephone Companies: Towards Residential Broadband Communications Services in the United States and Japan* (Cambridge, Mass.: Program on Information Resources Policy, Harvard University, 1990), 34-35.

[195] Denki Tsushin Shingikai [Telecommunications Council], *Nihon Denshin Denwa Kabushiki Kaishahou Husoku Dai Nijou nimotozuki kouzurubeki Sochi, Housakutou no Arikata Toushin (March 2, 1990) Youshi* [*Summary of Report on Appropriate Measures and Methods to Be Taken Based on article 2 (Supplementary Provision) of the NTT Law*], March 2, 1990.

4.1.2 Regulatory framework for information services provided by NTT

NTT is not subject to the restriction on information services found in the MFJ, although some provisions may function in a similar manner. "For example, article 1 of the NTT Law[196] defines NTT's business as 'to operate [a] domestic telecommunications business.' The article also stipulates that '[NTT] may . . . engage in business activities incidental to [domestic telecommunications business]' and 'other business activities necessary to achieve the purpose of the Company.' Although . . . some argue that NTT may not engage in manufacturing and certain kinds of information services (certain content origination)," NTT is currently providing certain information services[197] (see sections 4.3 and 4.4). "It is also commonly held that NTT has freedom of investment": that is, NTT's affiliate companies can "engage in any kind of business."[198] See the classificiation of NNT in **Table 4-1**.

The information services provided by NTT are classified into one of three categories: *original, incidental,* and *purpose-achieving* business. Currently, NTT is engaged in both content-related business (see **Table 4-2**), [199] such as CAPTAIN, a videotex service like the French Minitel; Dial Q^2,[200] an equivalent of the 900 service in the U.S.; telephone an

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[196] The NTT Law concerns NTT and the sphere of its business.

[197] Koike, *Cable Television and Telephone Companies*, 35.

[198] Ibid., 36.

[199] The market share of these content-creation services in NTT is currently very small. For example, the number of subscriber lines to NTT's videotex, CAPTAIN, was about 10,000 in March 1990, and it accounted for about 0.2 percent of the total number of telephone subscriber lines, nearly 52 million about the same time. NTT, *Annual Report, 1990*, 16; and NTT, *Financial Fact Book, 1990*, 10.
Similarly, the share of the advertising revenue from "New Media" (videotex, CATV, etc.) among the total advertising revenue including other media, such as TV and newspaper, is very small (see **Table 4-2**).

[200] Dial Q^2 was started in July 1989. By December 1990, the number of programs had grown to 5,500, which were provided through 34,000 telephone lines. Because Dial $Q^2$2 was often used for the purpose of prostitution (20 percent of all programs were for "adults"), on February 1, 1991, NTT announced that it would fully suspend the service in some

Table 4-1

Classification of NTT's Business

CLASSIFICATION OF BUSINESS	NATURE OF BUSINESS	LEGAL PROCEDURE
Original	Essential to the provision of telecommunications service	Authorization by the minister of the MPT*
Incidental	Business which accompanies telecommunications business	Notification to the MPT
Purpose-achieving	Business necessary to achieve the purpose of the company. (Not so closely related to telecommunication business as "Incidental" business.)	Authorization by the minister of the MPT

*Ministry of Post and Telecommunications

Source: NTT Law, Article 1; NTT internal material.

audiotex service (for which users pay only for calls, not for the service) that provides various kinds of recorded messages over the phone); as well as Hello Dial, a service similar to Hello Yellow offered by NYNEX in the U.S. (with Hello Dial, operators listen to callers' requests and then suggest shops, restaurants, or services by making use of the Town Pages, an equivalent of the U.S. Yellow Pages). NTT is also engaged in connecting personal computers (PCs) and providing them with information (such as various kinds of news) and services (such as transactions, bulletin-boards, and electronic mail).[201] In CAPTAIN, NTT functions as the provider of both gateway service and information service, such as CAPTAIN Town Pages.

The services shown in **Table 4-1** are discussed further in the next section.

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regions where NTT cannot restrict the use of the telephones individually because of the capability of the telephone exchange switches. "Dial Q^2: The Service Partly Suspended," *Yomiuri Shinbun*, February 2, 1991.

[201] This service is called "PC communications."

Table 4-2

Media Advertising Revenue in Japan

Media	1985	1986	1987	1988	1989
Television					
Revenue (¥100 M)	¥10,663	¥10,908	¥11,745	¥13,161	¥14,627
($100 M)	$81	$83	$90	$100	$112
Growth	—	2.3%	7.7%	12.1%	11.1%
Newspapers					
Revenue (¥100 M)	¥8,887	¥9,145	¥9,882	¥11,267	¥12,725
($100 M)	$68	$70	$75	$86	$97
Growth	—	2.9%	8.1%	14.0%	12.9%
Magazines					
Revenue (¥100 M)	¥2,230	¥2,382	¥2,577	¥2,962	¥3,354
($100 M)	$17	$18	$20	$23	$26
Growth	—	6.8%	8.2%	14.9%	13.2%
Radio					
Revenue (¥100 M)	¥1,612	¥1,633	¥1,727	¥1,879	¥2,084
($100 M)	$12	$12	$13	$14	$16
Growth	—	1.3%	5.8%	8.8%	10.9%
Directories*	*Combined Directories and Sales Promotions in 1985: ¥11,657 $89*	¥777	¥825	¥930	¥1,047
Revenue (¥100 M)		$6	$6	$7	$8
($100 M)		—	6.2%	12.7%	12.6%
Growth					
Sales Promo, etc.**		¥11,580	¥12,621	¥13,898	¥16,783
Revenue (¥100 M)		$88	$96	$106	$128
($100 M)		—	9.0%	10.1%	20.8%
Growth					
New Media***					
Revenue (¥100 M)	¥30	¥53	¥71	¥78	¥95
($100 M)	$0.2	$0.4	$0.5	$0.6	$0.7
Growth	—	76.7%	34.0%	9.9%	21.8%
Total					
Revenue (¥100 M)	¥35,079	¥36,478	¥39,448	¥44,175	¥50,716
($100 M)	$268	$278	$301	$337	$387
Growth	—	4.0%	8.1%	12.0%	14.8%

Note: ¥131 = $1

* Mostly NTT's directories (Town Pages, Hello Pages).

** Includes Outdoor Advertising (billboards on buildings and vehicles); Leaflets (the fee for inserting leaflets in newspapers); Direct Mail; Exhibits.

*** Includes the fee for radio wave and production of advertisements in CATV, videotex, teletext, etc.

Source: Data from Dentsu Inc., *Dentsu Advertising Yearbook* (1989 data from 1990 Report, 1985-1988 data from 1989 Report).

4.2 Current Trends in Information Services

4.2.1 The growth of personal computers

CAPTAIN, the videotex service in Japan, increased the number of its contracts from about 2,200 in 1984, when the commercial service was started, to about 97,000 in 1989.[202] For PC communications, including the service provided by NTT's subsidiary, the number of subscribers increased rapidly from 130,000 in 1988 to 311,000 in 1989.[203] The number of installed personal computers is estimated between 5 and 6 million.[204] The reason for such growth in the number of PCs is that the price of PCs and communication software dropped rapidly.[205] According to the president of Assist, a company that produces software for personal computers, there is a demand for 100 million PCs in Japan if the price of PCs goes down to 100,000 yen (about $763). NEC estimates this demand at 80 million PCs. It has been anticipated and is also now becoming true that PCs, rather than terminals specialized for certain videotex services, will penetrate into households in many countries including Japan and the U.S.[206] The penetration rate of PCs in households is expected to reach 25 percent in 1995 and 41 percent in 2005.[207] In addition, Family Computers (Famicons), which currently

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[202] "Special Record for the Fifth Anniversary of CAPTAIN" (Tokyo: Denki Tsushin Koudoka Kyokai [Telecommunications Enhancement Association], December 25, 1989).

[203] Nihon Jouhou Tsushin Kyokai [Japan Information & Communication Association], *New Media Hakusho* [*The White Paper on New Media, 1990 Edition*] (Tokyo: Nikkan Kogyou Shinbunsha, 1990), 13.

[204] Ibid., 15; see also Shiota, "Gekisen Pasokon Shijou" ["Fierce Battle in the PC Market"], *Nihon Keizai Shinbun*, October 23, 1990, Morning Edition.
For the reference, the number of households in Japan is about 41 million (as of 1990) and that of businesses is about 6.7 million (as of 1986), totalling nearly 48 million.

[205] Ibid., 15.

[206] Takahashi, Kenkichi, and Satoshi Odawara, *Jouhou Tsushin Gyoukai* [*Information and Communication Industry*] (Tokyo: Kyouikusha Inc., September 1988), 198.

[207] Ibid.

number more than 10 million nationwide, are used at home to deal with stock companies, banking services, and so on. Famicons prevailed originally as the tool for TV games, but users can access databases if their computers are equipped with communication adapters.[208]

In Japan, PCs are used primarily to communicate with other PCs by way of electronic mail, bulletin boards and forums, database retrieval, and transactions such as order entry and banking services. The use of transaction services is not growing so fast as anticipated.[209] For PC communications to experience growth in a wider user base, it is anticipated that in the future currently independent PC communications networks will be interconnected with one another as well as with networks and databases of overseas countries, so users can benefit more through access to a much wider range of information.[210] Actually, CAPTAIN, which is reportedly not growing at the rate expected, started connecting various PC communications networks with its own network in an attempt to make more useful information available to its users.[211]

4.2.2 Development of multi-functional terminals

As with PCs, telephones have become equipped with more functions than simply voice transmittal. One telephone manufacturing company developed a cordless telephone that combines the function of the CAPTAIN terminal with a small display screen. Also, cordless telephones are selling very well now, with an estimated household penetration of 10 percent. The MPT[212] expects that the popularity of cordless telephones will aid

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[208] *The White Paper on New Media, 1990 Edition*, 143.

[209] Ibid., 14.

[210] Takahashi and Odawara, *Information and Communication Industry*, 200-01.

[211] *The White Paper on New Media, 1990 Edition*, 15.

[212] In its "General Principles of Telecommunications Policy for Fiscal 1990," the MPT emphasizes the construction of telecommunications infrastructure in local areas through so-called New Media such as CAT, videotex, and so on.

diffusion of CAPTAIN services.[213] Perhaps the MPT believes that users who want a cordless telephone will also be attracted by the capability to use CAPTAIN with such telephones.

There are some examples of multi-functional telephones for electronic banking service (EB). One such telephone is co-developed by some city banks and telephone manufacturers individually. For example, Mitsubishi Bank and Tamura Denki (manufacturer), Taiyoukoube Mitsui Bank and Shinnihonkouhan (manufacturer) have developed individually such a telephone. Each of these telephones will retail for 50,000 yen ($382). The telephones will enable users to transfer their money and check their account balances: by inserting a special IC card into the telephone, users will be connected to the computer of their bank. Banks are offering this service in an effort to increase their number of fixed customers and to help increase the use of electronic banking. The banks also plan to provide weather reports, financial information, and ticket reservation services to appeal to a wider customer base. Some banks regard the telephone as the most effective tool with which to diffuse electronic banking services.[214] NTT also co-developed this type of telephone in a joint venture with Dai-Ichi Kangyo Bank, Sanwa Bank, and Toukai Bank.[215]

4.3 Outline of CAPTAIN, NTT's Videotex Service

Sections 4.3 and 4.4 examine information services provided by NTT. The following are examples of NTT's information services that seem to fall within the definition of information services defined by the MFJ.

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[213] "CAPTAIN Combined into a Cordless Telephone," *Nihon Keizai Shinbun*, July 17, 1990, Morning Edition.

[214] "Metropolitan Banks Turn a Telephone into a Data Processing Terminal," *Nihon Keizai Shinbun*, August 27, 1990, Morning Edition.

[215] "NTT Improved Multi-functional Telephone with Three Metropolitan Banks," *Nihon Keizai Shinbun*, October 27, 1990, Morning Edition.

4.3.1 Historical background and structure of CAPTAIN

Character and Pattern Telephone Access Information Network System (CAPTAIN) was started on a commercial basis in Tokyo and Osaka in 1984. Now the service is available nationwide. In the beginning, CAPTAIN services tended to be used primarily to enjoy games, quizzes, and to get information such as news and weather forecasts – even though CAPTAIN could offer two-way communication services such as order entry and EB. At that time, CAPTAIN attracted a great deal of attention from mass media as a "leading new media," but the high cost of the terminal (about 200,000 yen, or $1,527) and the limited services available were said to be an obstacle to widespread growth of the service. The subscriber base did not increase as expected; by the end of 1987, subscribers numbered 45,000 – less than one-tenth of the objective. NTT reduced the price of the terminal gradually, and in 1988 the price dropped to 40,000 yen ($305).[216] The subscriber base did not increase significantly as a result of this price reduction (see **Figure 4-1**).

CAPTAIN users can retrieve information from databases, reserve tickets, order products, and use electronic mail through various means: a specialized terminal for CAPTAIN, a TV set with an adapter, or a PC or Famicon with an adapter. Information Providers (IPs) can use the host computer, an information center for joint-use by many IPs; or if they have their own host computer, they can also connect their own database to the CAPTAIN videotex network. In both cases, the IPs' information can be accessed by users nationwide for 30 yen (23 cents) per 3 minutes. The former type of IPs numbered 532 and the latter numbered 109 in December 1989[217] (see **Figure 4-2** for the structure of the service). In addition, there is another kind of CAPTAIN network called Local CAPTAINS. A Local CAPTAIN is a system with a center (host computer) in each local area, and the service intended for subscribers of that area is provided only in that area. The companies operating Local CAPTAIN

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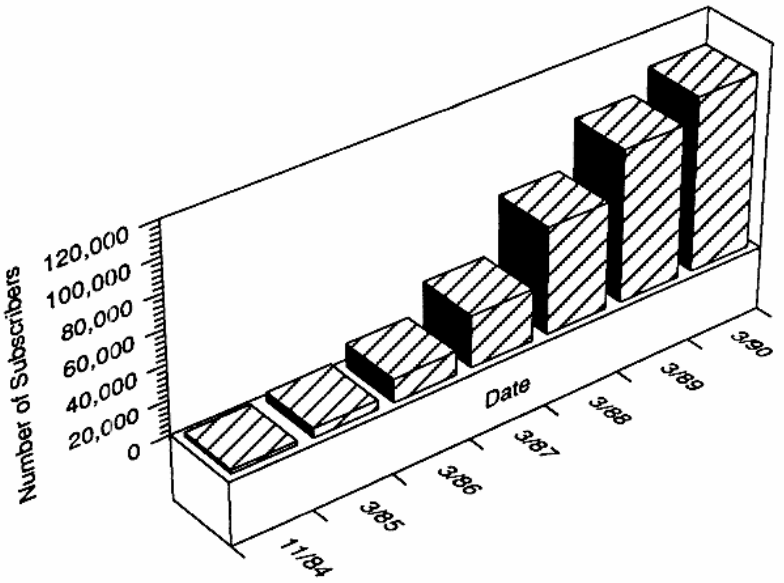
[216] Chiiki Jouhou Kenkyujo [Institute on Regional Information], *CAPTAIN 1984-1989 Fifth Anniversary* (Tokyo: Denki Tsushin Koudoka Kyoukai, December 25, 1989), 6; Takahashi and Odawara, *Information and Communication Industry*, 182.

[217] CAPTAIN Service Corporation, "CAPTAIN" (February 1990).



Source: Data from NTT internal material. Graphic © 1992 President and Fellows of Harvard College. Program on Information Resources Policy.

Figure 4-1

Number of CAPTAIN Subscribers (11/84 - 3/90)

numbered 46 in 1990.[218] The user of Local CAPTAIN can access the service for 10 yen (8 cents) per 3 minutes, which is cheaper than the nationwide CAPTAIN service mentioned above.

The role of NTT in CAPTAIN is to provide gateway service and to offer information service as an IP. NTT and its subsidiaries provide various kinds of information such as CAPTAIN Town Pages. In charge of billing users as well, NTT includes the CAPTAIN fee in each user's monthly telephone bill.[219]

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[218] *The White Paper on New Media, 1990 Edition*, 92.

[219] "Special Record of CAPTAIN for the 5th Anniversary," 16.

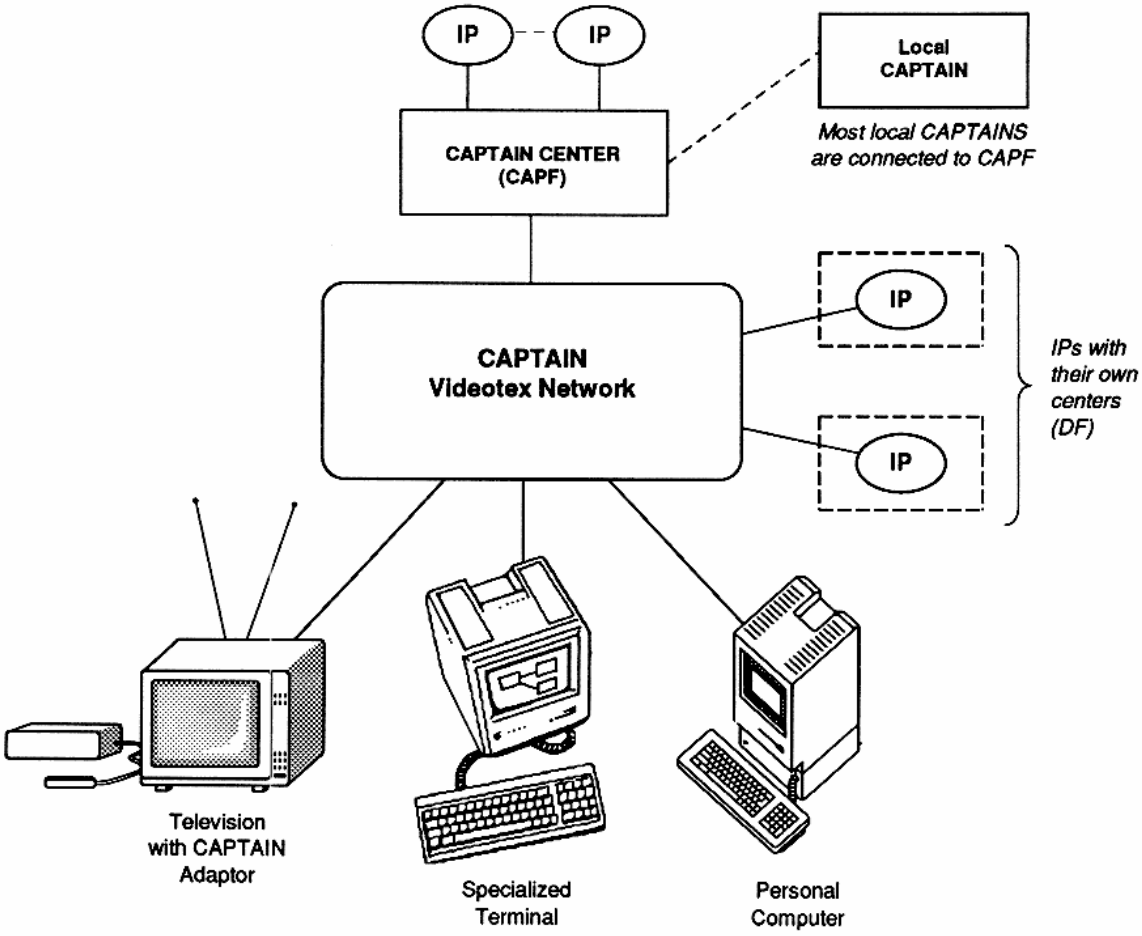

Figure 4-2

Structure of CAPTAIN System

4.3.2 Pricing of CAPTAIN

User fees for the CAPTAIN service are shown in **Table 4-3**.

4.3.3 Content and usage of CAPTAIN

The services provided by CAPTAIN can be divided into four types: 1) information retrieval, 2) order entry, such as reservation of tickets and hotels, 3) calculation or financial simulation, such as summing up the results of questionnaire surveys, and 4) Closed User Group

Table 4-3

CAPTAIN User Fee

Type of Fee	Fee and Remarks	
Subscription fee	¥800 ($6.1)	Paid by the user at the time of subscription.
Communication fee (telephone call)	¥30 ($0.23)	Rates per 3 minutes, except weekdays from 7 pm - 8 am, and all day Saturday, Sunday, and holidays, when ¥30 per 5 minutes.
Information fee	Determined by Information Providers elsewhere.	

Source: Reprinted with permission from *Communications Services Usage Guidebook '91*, Table 1, 11 Videotex section. © 1990 by Nikkei Business Publications Inc.

services.[220] Currently, CAPTAIN can provide only still pictures and sound. Super CAPTAIN, however, can provide animation and voice with a broader band than CAPTAIN.[221]

Breaking down the IPs, according to the data of CAPTAIN Service Corp., as of December 1989, the industries with the most IPs were banks, stock companies, and insurance companies. This group of IPs numbered 112 of the total 532 IPs (excluding IPs directly connected to the CAPTAIN videotex network, not through a joint-used center), which accounted for 21 percent of the total (see **Figure** 4-3 for the transition in the number of total IPs). The second group, government and its related organizations, numbered 89 IPs, which accounted for 17 percent of the total, and the third group, information industries, numbered 57 IPs, which accounted for 11 percent.[222]

According to the same data, the most frequently accessed type of information was hobby and leisure, which accounted for 43 percent of the

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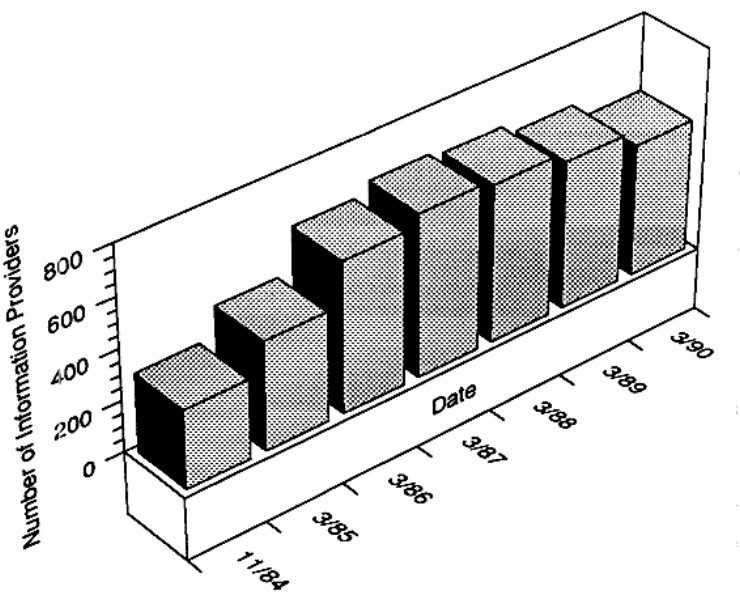
[220] *The White Paper on New Media, 1990 Edition*, 91.

[221] NTT Video and Record Communications Division, "Changing CAPTAIN" Part 4, *NTT Business*, vol. 63 (October 1990), 48.

[222] "CAPTAIN Information," February 1990, 9.



Note: The number excludes IPs connecting their own centers directly to CAPTAIN videotex networks (not through CAPF).

Source: Data from NTT internal material. Graphic © 1992 President and Fellows of Harvard College. Program on Information Resources Policy.

Figure 4-3

Number of IPs in the CAPTAIN Information Center (CAPF) (11/84 - 3/90)

share of the total use. Second was specialized information,[223] with 14.5 percent share, and third was news and weather forecasts, with 14.3 percent share. If the category of information is broken down further, games were the most frequently used information or service, followed by electronic mail, and stock market news. This usage pattern proved to be the same not only for all terminals (businesses and consumers) but also for households (consumers) alone. This usage of videotex is similar to the cases in the U.S.[224]

The average usage per terminal can be calculated by dividing the total usage of CAPTAIN per month by the number of existing terminals.

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[223] "Specialized information" refers to the information for users with a special interest in a particular field.

[224] "CAPTAIN Information," 10-11.

In December 1989, the total usage of CAPTAIN was 754,000 times per month, and the number of installed terminals was about 97,000; average usage per terminal was 7.8 times per month. The data show that the average connect time was 4 minutes and 33 seconds.[225]

With the increase of IP-owned centers (DF centers), users have learned to move back and forth among screens of different centers. On the other hand, CAPTAIN menus are still said to be difficult to use, and users cannot return to a menu from the previous screen if that screen is provided by a different center. So CAPTAIN Service Corporation and NTT are making such interconnection among different centers much easier by improving the system and by providing user-friendly signs on-screen.

4.4 Electronic Town Pages (Yellow Pages)

This section highlights the information services within the directory business of NTT, such as CAPTAIN Town Pages, CD Town Pages,[226] and Hello Dial. Before examining these information services, we must first take a look at the status of current directory business.

4.4.1 Regulatory framework for NTT's directory business

NTT can engage in directory business under article 1 of the NTT Law – the only law that regulates NTT's directory business – which, as noted, defines NTT's business as "to operate domestic telecommunications business." NTT publishes Town Pages,[227] Hello Pages,[228] and New Pages,[229]

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[225] Ibid., 11.

[226] Although CD Town Pages is not considered an information service as defined in the MFJ, it has the potential to shed light on the issue about the scope of NTT's business (see section 4.4.7).

[227] This classified directory is an equivalent of the yellow pages.

[228] This alphabetical directory is an equivalent of the white pages.

[229] These are equivalent to headings in the yellow pages – for example, names of services, occupations, and industries. New Pages contains listings of special job classifications as well as such limited

which are construed as "original business," because publishing the directories is an essential element of NTT's telephone service.[230]

NTT also offers electronic directories such as CAPTAIN Town Pages, which does not yet have a confirmed definition in article 1 of the NTT Law because it is still at a trial stage, and CD Town Pages, which is also not yet defined although about to be implemented on a commercial basis. CAPTAIN Town Pages, part of CAPTAIN services, provides users with online information (the same listings as in the Town Pages), advertisements, and various ways to retrieve this information. CD Town Pages is a compact disk used with personal computers that contains only the listings of Town Pages – no advertisements. The information on the disk is updated and sold periodically.[231] (Content of services is specified later, in section 4.4.7).

In January 1990, NTT disclosed the business subscriber listings to outside companies, such as other directory publishers and direct marketing companies, by considering the proposal of the *Interim Report of the Committee on the Structure of Numbers with the Evolution of Telecommunications Network*[232] (hereinafter, *Interim Report*), which examined the appropriateness of selling telephone subscriber listings[233]

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areas as good restaurants reachable by railway, entertainment events, recreation for children, shops open 24 hours, and so on. These directories usually target particular users.

[230] Norio Okuda, senior manager, NTT's Division of Strategy Planning, Telecommunications Directory Division, telephone interview with author, January 1991.

[231] Material of NTT Telecommunications Directory Division, March 24, 1988 (hereinafter, "NTT Directory Division").

[232] This report, written by academics and staff of common carriers, was submitted to the Ministry of Posts and Telecommunications (MPT) as guidelines for protection of individual (information) privacy.

[233] The subscriber listings are divided into Hello Pages (in this chapter, they are regarded the same as "individual listings," although Hello Pages includes both individual and business subscriber listings) and Town Pages (they are also regarded the same as business subscriber listings).

in terms of individual privacy vs. social need. Finally, the Committee pointed out the necessity for NTT to provide Town Pages subscriber listings[234] to other non-NTT-related companies.[235] The information provided is the same as in paper directories. The disclosure of the Town Pages subscriber listings is "purpose-achieving business."

4.4.2 Regulatory framework for other publishers

Actually, there is no restriction on private publishers[236] other than NTT. The others are not constrained by any obligation like that imposed on NTT to distribute directories. For this reason, they can choose some headings and areas that are used more often by users and that seem to generate more advertising revenue than NTT's directories. (NTT is obligated to carry listings of all kinds of businesses – subscribers – except those who refuse to put their listings in the directories.)[237]

However, some of these private publishers sometimes copy NTT's directories (in most cases, Hello Pages) and publish them as their own products. NTT insisted that provision of Hello Pages information (i.e., the residential subscriber listings) causes a problem in terms of securing the privacy of individuals[238] and also that NTT owns the

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[234] The Committee opposed the disclosure of Hello Pages listings in terms of protecting privacy. See note 239 for more details.

[235] MPT, outline of the *Denki Tsushin Network no Hatten ni tomonau Bangou no Arikata ni Kansuru Kenkyukai* [*Interim Report on the Committee on the Structure of Numbers with the Evolution of Network*] (hereinafter, *Interim Report*), Ministry of Posts and Telecommunications, July 2, 1987, Part 3, "What the Information Concerning Telephone Subscribers Should Be," 7.
Before January 1990, NTT provided the subscriber information only to its subsidiary.

[236] Here, a private publisher means any publisher (other than NTT) of directories which has no formal obligation to publish directories.

[237] The Articles of Contract (rules and conditions concerning the provision of telecommunications services to the user), article 149, 150-5.

[238] The *Interim Report* pointed out that if Hello Pages subscriber listings (individual listings) were disclosed (sold to Direct Mail companies, etc.), these subscribers might suffer annoyance telephone

copyright to its Hello Pages.[239] NTT requested these private publishers to stop producing the directories and to withdraw the existing directories. The *Interim Report* pointed out that to disclose the listings of Hello Pages (except business listings, which also appear in Town Pages) is a problem in terms of invasion of individual privacy.

4.4.3 Background of NTT's directory business

4.4.3.1 Brief history of NTT's directory organization

NTT started strengthening its directory business in the late 1970s. In 1983, the Directory Section was established within NTT Headquarters to support and guide eleven regional directory divisions, which are in charge of publishing directories.[240] Before that, directory business was handled by a sub-section, a unit one rank smaller than a section.

In 1985, when NTT was privatized, the Directory Section of Headquarters was upgraded to a higher rank in the organization, called the Telecommunications Directory Division, which is a financially independent unit that is expected to be responsible for making a profit in the business. The purpose of setting up divisions as independent financial units within NTT was to prevent cross-subsidy and to compete with other telecommunications carriers and manufacturers of customer premises equipment on an equal basis from financial and personnel points of view. Regional Directory Sections also were formed into divisions in

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calls, calls from salespeople, and so on. The *Interim Report* also indicated that these individual subscriber listings might be combined with other information to be accumulated somewhere and traced. Also, it concluded that Hello Pages subscriber listings should be available only to those who try to verify a telephone number in order to place a call. In other words, the *Interim Report* only permitted the availability of the individual subscriber listings in Hello Pages. *Interim Report*, Parts 3, 5, and 6.

[239] The copyright of Hello Pages is not yet clear judicially, while that of Town Pages is established in the past judicial precedents.

[240] NTT Telecommunications Directory Division does not publish directories, except for specialized directories such as the English directory for foreign visitors and residents, which includes listings for utilities, hotels, airport access maps, and so on.

the same manner.[241] NTT's Telecommunications Directory Division guides and supervises the operation of the Regional Telecommunications Directory Division.

In 1986, NTT established a subsidiary through a joint-venture with ITT-World Directories (ITT-WD), one of ITT's subsidiaries, which is engaged in sales of advertisement and publishing directories in more than ten countries. NTT engaged in this joint-venture in order to make its directory business much more profitable by introducing ITT-WD's know-how about making directories more user-friendly, reinforcing sales force, and reducing cost in the process of producing directories.[242]

4.4.3.2 The status of NTT's improvement of its directories

NTT began the drastic improvement of its directory business in 1986, when Nippon Directories Development (NDD) was established as a joint venture of NTT and ITT-WD. The purpose of NDD is to make proposals to NTT's Telecommunications Directory Division about editorial improvement of directories, reinforcement of sales force, and cost reduction in the process of printing and distributing directories based on the know-how of ITT-WD. As a result of the proposals by NDD, NTT has already introduced a new page layout,[243] added red to its advertisements, and introduced new sales channels such as tele-sales and tele-marketing; now under way are the improvement of headings and cost reduction of printing and distributing process. NTT intends to promote the use of directories and to increase the revenue and profit through these improvements to make directories more user friendly and standard[244] and also through savings from cutbacks of unnecessary expenses. At the same time, NTT

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[241] Norio Okuda interview.

[242] Kenichi Komahashi, "Kaihatsu Monogatari NTT Town Pages," [a story about NTT product development], *Shukan Toyo Keizai*, August 29, 1987.

[243] Page layout here refers to the rule of arranging advertisements – for example, in alphabetical order or from large to small.

[244] Before NDD was founded, directories were not edited uniformly from region to region, causing diversity in each directory's cover, page layout, and so on.

aims to attract big and major companies as advertisers and to enhance the position of their directories as an advertising media.

4.4.3.3 Equal share of the cost for directory assistance

NTT started charging users for the directory assistance service in December 1990 (previously the service was free). NTT's intention is to let users pay or to share the cost of the directory assistance service[245] equally according to how often they use it, because currently about only 20 percent of the total users account for 80 percent of the total use of the service. While it now charges users for this service, on user request NTT distributes terminals – free of charge – that allow users to access the database of the directory assistance.[246] Although, reportedly, NTT examined the possibility of allowing users with NTT terminals to access CAPTAIN and other PC networks, NTT decided not to add such capabilities to the terminal because use of the free terminal was originally limited to the use for directory assistance; adding such capabilities could suppress the business of other manufacturers, which would fall under "unfairly cheap sales" of the anti-trust law.[247] NTT will also distribute software – free of charge – to PC users that will allow them to access the database. Using the NTT terminal or a PC one is limited to checking one telephone number at one time, and users are charged for connect time 10 yen per number, per 3 minutes (during 11 pm to 6 am, 4 minutes).[248] In contrast, users checking a number on the

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[245] According to NTT, the cost of directory assistance (cost for operators) is 230 billion yen ($1.8 billion) per year and 190 yen ($1.5) per call by the telephone subscriber. Arai, "Communication Report: Specification for Access to Telephone Subscriber Database Was Confirmed – The Terminal Is Also Available for CAPTAIN," *Nikkei Communications*, January 8, 1990, 43; see also "Implementing Equal Share of the Cost for Directory Assistance" [charging the user for directory assistance], Part 2, *NTT Business*, vol. 63, October 1990, 68.

[246] According to NTT, it will distribute about 250,000 specialized terminals for the first three years. "Implementing Equal Share of the Cost for Directory Assistance," Part 1, *NTT Business*, vol. 62, September 1990, 39.

[247] Arai, "Communication Report," 43.

[248] "Implementing Equal Share of the Cost for Directory Assistance," Part 2, 68.

telephone pay 30 yen per telephone number. In both cases, users can check a telephone number anywhere in the country.[249]

NTT's Directory Division anticipates that users will use their directories more often and has decided to distribute Hello Pages from any region of the country free of charge to users who request it.[250]

4.4.4 The position of directories in the advertising market

4.4.4.1 Revenue, circulation, usage

In fiscal 1989 (April 1989–March 1990), the advertising revenue of NTT directories was 104.7 billion yen ($799 million), which accounted for 2 percent of total advertising revenue in Japan, ranked as the fifth in revenue in comparison with other media, like TV, newspapers, magazines, and radio. The advertising revenue of Town Pages accounted for about 85 percent of 104.7 billion yen. (For the NTT directory advertising revenue in comparison with other media, see **Table 4-2.**)

By the end of fiscal 1989, the number of books for Town Pages was 138, that for Hello Pages was 493, and that for Town & Hello (a directory combining both Town Pages and Hello Pages, mainly existing in small towns or villages) was 33. The total was 664 books for all of Japan, excluding "Telephone Guides." As for circulation, that of Town Pages was 48.3 million, that of Hello Pages was 58.8 million, and that of Town & Hello was 1.2 million. Total circulation amounted to 108.3 million.

The number of subscriber listings (including sublistings) in Town Pages was 10 million, that of Hello Pages was 41 million, and that of Town & Hello was 1.2 million. The total number of the listings amounted to about 53 million. As to the number of advertisements (not the number of advertisers), Town Pages featured 682 thousand ads; Hello Pages, 386

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[249] NTT internal material, June 28, 1990.

[250] "Implementing Equal Share of the Cost for Directory Assistance," Part 1, 39. Currently, NTT provides to users – without charge – Hello Pages for the prefecture in which they live.

thousand ads[251]; and Town & Hello, 26 thousand ads. All together, the ads totalled about 1.1 million, for an estimated 16.8 percent of all businesses in Japan – 6.5 million, excluding public organizations which are unlikely to have ads[252] – thus having ads in both the Town Pages and Hello Pages. The figure of 16.8 percent shows the penetration of the ads,[253] which is extremely low compared with that of the U.S., which is more than 50 percent.

According to the results of a survey conducted in 1987, the Town Pages is used 9.7 times a year and Hello Pages is used 11.1 times a year by directory owners.[254] Usage of directories in Japan is much lower than in the U.S. (see **Table 4-4** for a listing of the above-mentioned figures).

4.4.4.2 Comparison with other media

As shown in **Table 4-2**, in March 1989 the advertising revenue of the NTT directories was 88.5 billion yen, which accounted for 2 percent of total advertising revenue in Japan; it ranked fifth in revenue in comparison with other media. In the same year, of all the advertising revenue, the share of TV advertising revenue was 29.8 percent, the largest among all media. The share of newspaper advertising revenue was 25.5 percent, second largest, followed by magazines with 6.7 percent share, and radio with 4.3 percent share. The share of directory advertising revenue in Japan (mostly the revenue of NTT's directories) was 2 percent – much lower than that of U.S. directories, which was

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[251] NTT makes a distinction between the ads of these two directories, based on each directory's purpose. The Town Pages targets its ads toward users who are looking for shops or services that suit their needs; so, its main ads are "display ads," which basically consist of five sizes ranging from 1/16 to 1/1 of the full page. On the other hand, ads in the Hello Pages are used incidentally when users check the telephone number of a particular shop or service; so, Hello Pages has fewer ads, and they are much smaller than those of the Town Pages.

[252] This is a 1986 estimate.

[253] These figures were made public.

[254] The survey was conducted in twenty areas in Japan. Samples consist of 9,891 for the Town Pages and 9,843 for the Hello Pages.

Table 4-4

Directories in Japan: 1988 Basic Data

Number of Directories (current)	
Town Pages	138
Hello Pages	493
Town & Hello[1]	33
Telephone Guide[2]	16
Total	**680**
Total Circulation (000s)	
Town Pages	48,269
Hello Pages	58,838
Town & Hello	1,204
Telephone Guide	18,357
Total	**126,668**
Total Number of Advertisements (000s)	
Town Pages	682
Hello Pages	386
Town & Hello	26
Telephone Guide	3
	1,097
Penetration Ratio[3]	16.8%
Total Advertising Revenues[4]	$800 Million[5] (¥104.7 Billion)
Average use per person per year[5]	
Town Pages	9.7
Hello Pages	11.1

[1]Town and Hello is a directory which combines Town Pages and Hello Pages.
[2]Telephone Guide is a directory which lists frequently-used subscribers such as government organizations, transportation facilities, etc.
[3]Penetration Ratio = Total number of advertisements / Total number of businesses in Japan (excluding public organizations) x 100. (Note: The number of businesses that advertise is unknown.)
[4]About 85% of total advertising revenue comes from the Town Pages.
[5]Usage: Based on a 1987 survey conducted in 20 cities in Japan. N (number of samples) = 9.891 (Town Pages). N = 9.843 (Hello Pages).

Source: Data from NTT materials.

advertising revenue of so-called "New Media" (CAT, Videotex, Teletex, and so on) was the smallest, at only 0.2 percent.[255]

As to the growth of advertising revenue, the total advertising revenue in Japan increased by 8.1 percent in 1987 compared with the revenue in 1986, and it increased by 12 percent in 1988. The growth rate in 1989 was 14.8 percent. These increases were higher than the growth rate of GNP, which was 4.3 percent in 1987 and 6.3 percent in 1988[256] (see also Table 4-2 for the rate of increase of other media).

According to Mitsuzou Yokota, president of NDD, the potential advertising revenue could total about 200 billion yen, theoretically. Considering that the population of Japan is half that of the U.S., and that the number of telephone calls made by one person in Japan is one-third that by a person in the U.S., he calculates that the advertising revenue in Japan could reach one-sixth of that in the U.S. (The directory advertising revenue in the U.S. is more than $7.6 billion[257] – about 1 trillion and hundreds of billions of yen.[258])

4.4.5 Disclosure of the Town Pages subscriber listings

NTT started selling Town Pages subscriber listings in January 1990. (Before that, they had been used exclusively for publishing directories of NTT.) Disclosure of Town Pages subscriber listings is the basis for other competitors to publish paper directories and electronic directories including both on-line and CD types.

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[255] For media advertising revenue in the U.S., see Table 4-2 and Table 2-1.

[256] Dentsu Corporation, Ltd., *Dentsu Advertising Yearbook*, 1990, Table entitled "The Growth of Japanese Economy and Advertising Expenditure," 103.

[257] As of this writing, $1 = ¥131.

[258] *Tsushin Kogyo Shinbun* [specialized newspaper dealing with matters concerning telecommunications], July 6, 1987, 4.

NTT started selling this listing in response to requests from various companies to disclose the subscriber listings of directories so that they could make use of the information for their own business, for example, to establish their own customer database. NTT also has followed recommendations in the *Interim Report* (July 1987) that suggested the Town Pages' information (subscriber listings) should be disclosed.[259]

The content of disclosed information consists of the name, address, telephone number, and heading of the business subscriber listings; this information is delivered to users on magnetic tape (MT), floppy disk, etc. The number of headings provided is basically a standard sixty-four. For an additional charge, the full 2,000 headings can be provided as a user option. Users can also choose the listings of certain areas by the unit of a prefecture, etc.

In the contract between NTT and the users (mostly companies), users are prohibited from 1) using listings for purposes other than those agreed on in the contract, 2) leaking secrets (such as subscriber listings) to other companies or publishers, 3) transferring listings to which they have access to other companies or publishers, 4) making copies of Town Pages, and 5) reselling listings (without processing) for profit. In addition, users must report to NTT how they used the listings.[260]

The price of each listing is set by the purpose of the purchase (see Table 4-5).

4.4.6 CAPTAIN Town Pages (Electronic Town Pages)

4.4.6.1 Purpose, service area, and pricing

CAPTAIN Town Pages is one of the services provided by NTT's CAPTAIN system. It includes the subscriber listings of Town Pages (mostly

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[259] NTT Advertising Department, "NTT Trend: How Directory Business Is Changing," *NTT Plaza*, February 1990, 4-5.

[260] NTT internal material, 1989.

Table 4-5

Purpose of Sales of Telephone Subscriber Listings

PURPOSE	PATTERN OF USER	EXAMPLES
Individual or company use	In-house user	Maintenance of their own data-bases, creating marketing data
Sales of value-added products	Reseller	CD-ROM directory with maps
Publishing directories	Publisher	New Pages, magazines, others

Source: NTT internal material.

businesses) and advertisements and has been provided by NTT through CAPTAIN since July 1988. It was continued throughout fiscal 1991 on a trial basis.

The purpose of the service is twofold: first, to respond to the user's needs for enrichment (diversification) of CAPTAIN services and provide telephone subscriber information through the CAPTAIN system, and, second, to check the commercial potential of such needs. The service was regarded as a trial through the end of fiscal 1990 (March 1991). In January 1990, CAPTAIN Town Pages was provided in 37 local CAPTAIN centers; users within the localities covered by each local center can access the CAPTAIN Town Pages for that area for 10 yen (8 cents) per 3 minutes, the same rate as a local phone call. Users can also access CAPTAIN Town Pages of different local areas, for a charge of 30 yen (23 cents) per 3 minutes, which is uniform across the country.[261] Thus, users are charged by the time, not by how many numbers they check, and no additional fee is necessary.

[261] NTT, 1990 CAPTAIN brochure. See also "CAPTAIN Town Pages Will Be Introduced on the 19th Next Month," *Nihon Kogyo Shinbun*, August 19, 1988; and section 4.3.2, "Pricing of CAPTAIN."

4.4.6.2 Function of the service

Users can access the information of CAPTAIN Town Pages in different ways: 1) look up the number of a particular business by the name and address or even the name of the neighborhood, 2) look up the number of a particular business by the name of, for example, the train station nearby (instead of the actual name of the business) or the name of a ward (district) and directory headings, 3) choose a certain shop or service that fits the user's needs in the same way as in (2) above. In situations (2) and (3), if the user does not know the exact name of the heading, the user can choose an appropriate heading shown on the screen. First, the list of general headings (larger categories than regular headings) appear on screen; after the user selects a general heading, regular headings that belong to the selected general heading appear. If the user knows the name of the heading, the heading can be accessed directly.[262]

Advertisement is available in four sizes: 1) full-page ads in the index, 2) ads consisting of two to ten screens, which include detailed information on shops, such as their business hours, holidays, location, sales points, and a map, 3) one-line ads attached to the listing, and 4) Sponsor ads (NTT's ads), which appear in the corner of the screen, as with index pages.[263]

4.4.7 CD Town Pages (Electronic Yellow Pages)

4.4.7.1 Purpose, service area, and pricing

CD Town Pages is a compact disk (CD) that includes the subscriber listings of Town Pages and, like the CAPTAIN Town Pages, offers diversified means of retrieval (for example, by heading, name, or area). The trial with the subscriber listings of Tokyo's twenty-three wards has been completed. Although this product does not fall within the MFJ's definition of information services, it might lead to an issue among NTT and other companies planning similar services. Actually, NTT once sold a Town Pages Map (CD Town Pages containing maps of the area), but NTT

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[262] NTT internal material and brochure about CAPTAIN Town Pages.

[263] Ibid.

stopped selling it after considering concerns raised by a particular association.[264]

The purpose of CD Town Pages is to meet the diversity of customers' needs toward directories, and its targets are banking institutions, research companies, hotels, department stores, and so on – companies that need to verify the telephone numbers and addresses of their customers. The content of the disk consists of headings, subscribers' names, addresses, and zip codes.[265]

4.4.7.2 Major functions for retrieval

CD Town Pages can be retrieved basically in the same way as CAPTAIN Town Pages. It is intended to be used by personal computers in the NEC 9800 series, IBM-Station 5500 and 5540, and the Hitachi 2020 in the beginning (NTT plans to make the service available through use of other types of PCs because of an increase in service demand). The major difference between CAPTAIN Town Pages and CD Town Pages is that the latter has no advertisement: CD Town Pages targets business users such as banking companies, which check the identity of borrowers, and hotels and department stores, which check the addresses of consignees.

Another difference is that CD Town Pages make it possible to rearrange and print the listings by the order of Japanese syllables in names (alphabetical order), by addresses, or by headings.[266]

4.4.8 Hello Dial

Hello Dial is a "Talking Town Pages" provided by operators (sometimes a recorded message, such as information about a certain department store) to users seeking certain services or shops that fit their needs. First, IPs offer specific information about their shops or services to NTT telephone offices, then NTT operators introduce names of particular

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[264] Norio Okuda interview.

[265] NTT 1990 internal material about the sales of CD Town Pages.

[266] Ibid.

services or shops that they choose from among those IPs which registered for the service. For example, "A hotel with a quiet Japanese-style room near such and such station," "A French restaurant that accommodates about twenty people, within a price range of . . . ."

Started in 1985, the service is currently provided in most cities. NTT telephone offices mainly provide information concerning hotels, restaurants, leisure, and shopping. Actually, a report by one telephone office showed that the top two categories of information requested by users concerned sight-seeing and leisure, which accounted for 29 percent of all calls, followed by hotels for 26 percent, and shopping for 18 percent.[267] As to the cost, IPs must pay for the enrollment of the service, after which they must pay for registration, either at one time or on a monthly basis. In Tokyo, the enrollment fee is 50,000 yen ($385), and the registration fee is 50,000 yen ($385) per year. To pay on an installment plan costs the IPs 5,000 yen ($39) per month. Users are charged only for the telephone calls.[268]

While the number of IPs has been increasing since the service was started, for many branches, especially in the rural areas, the balance does not break even. NTT plans to merge the service provided by these rural branches and reduce the cost of the service.[269]

Hello Dial is defined as an "incidental business." In the U.S., NYNEX provided a similar service called "Hello Yellow," also assisted by human operators, but had to discontinue it for reasons similar to the MFJ's information services restrictions (see chapter 2, section 2.3.3).[270]

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[267] "The Usage of 'Information Guides' Has Been Rapidly Increasing," *Iwate Nippo*, August 1986 [data about NTT's Morioka Telephone Branch].

[268] NTT 1990 brochure.

[269] Shuji Ohta, assistant manager, NTT Operator Service Commercial Department, telephone interview with author, February 20, 1991.

[270] See chapter 2, note 98.

4.5 Issues and Subjects for the Future

4.5.1 The issue about the disclosure of Hello Pages listings

Although NTT disclosed the Town Pages information, it had already become evident that mail-order companies and catering services had a much stronger demand for the disclosure of individual listings, Hello Pages information, by a survey conducted by NTT in 1987.[271] Actually, for example, a newspaper article confirms that publications like "Monthly List of Names" or "List of Existing Students in Preparatory School" or "List of Residents Leasing a House" are selling well among insurance, real estate, and mail-order companies. One company, Daiken, enters all the information of directories onto magnetic tape; it aims to build up a nationwide database that would feature 40 million telephone subscribers' entries, adding to the original data information such as age, family, school career, and hobbies. Besides that, companies like banks, department stores, credit companies, and educational industries collect detailed individual information in some way or other.[272]

However, the *Interim Report* regards it as a breach of personal privacy to disclose an individual's personal information, such as provided in the Hello Pages, but the report found no such problem with disclosing the information in the Town Pages. That is why NTT did not disclose Hello Pages information.

Another controversial point related to the disclosure of Hello Pages is that NTT claims ownership to the copyright of Hello Pages, claiming that the current order of names is specially designed by NTT. NTT insisted that since there are many kinds of letters in Japanese (such as Chinese characters, Hiragana, Katakana, figures, and an alphabet), NTT arranged the directory by the kind of letters (e.g., Hiragana and Katakana) when the sound of these words is the same. NTT also asserted

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[271] "CD Directory Unexpected Standstill," *Nikkei Sangyou Shinbun*, October 27, 1987.

[272] "New Media Jidai no Ryutsu Senryaku" ["Distribution Strategy in the Era of New Media"], *Nihon Ryutsu Shinbun*, July 30, 1984, 165-67.

that it invented special codes used in the listing that show the kind of company, telephone service, and so on. NTT also emphasized that this editing work in its Hello Pages requires a special creativity, which is essential to constituency of copyright. NTT emphasized this point when it filed a suit with the court against private publishers who published directories that were basically copies of NTT's Hello Pages. But so far, the NTT's claim to copyright has not yet been tested in the court.[273]

As for disclosure of Town Pages listings, it remains to be seen whether NTT can add more information to the original listings[274] and sell them more profitably.

4.5.2 NTT's permissible scope of business and possible anticompetitive behavior

The report by Denki Tsushin Shingikai on Appropriate Measure toward NTT based on article 2 of Additional Law of NTT Law (March 2, 1990) points out that NTT has the potential to influence not only the telecommunications industry but also society overall because of the company's size and its share in the telecommunications business. This report prompts two major questions: What kind of business besides telecommunications should NTT be allowed to become engaged in? and Will NTT become a bottleneck power of local exchange, preventing fair competition in long distance telephone service, among competitors, etc.?

4.5.2.1 <u>The permissible scope of NTT's business</u>

The report points out the necessity to set up some guidelines (limitations) to the business in which NTT can be engaged. Some companies are concerned about NTT's possible entry into various information related businesses through its subsidiaries. For example, one of NTT's subsidiaries was selling CD Town Pages with maps, and NTT

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[273] Norio Okuda interview.

[274] For example, NTT could offer its CD Town Pages with a map of the area. But according to NTT, some argue that NTT would not be allowed to publish such a directory, based on article 1 of the NTT Law.

stopped sales at the request of a competitor,[275] who claimed the addition of maps was beyond the scope of NTT's business because the maps are not included in paper directories.

4.5.2.2 Possibility of anticompetitive behavior by NTT

The report also emphasizes that the bottleneck power of local exchange prevents competition among long distance carriers on an equal basis and proposes that local exchange and long distance telecommunications should be separated completely.[276] The report suggests that providing both local and long distance services together is likely to prevent fair competition.

Another matter pointed out by the report is the possibility of cross-subsidization of competitive businesses by a monopolistic service.[277] In relation to this point, it suggested that financial balance of each division or service should be further defined.

Finally, the report describes the possibility that NTT could appropriate the information obtained through local exchange service for other competitive services.

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[275] Norio Okuda interview.

[276] NTT currently provides both services. There are several competitors for both services, but their share is comparatively lower. In the domestic telecommunications business market, including leased circuit, cellular, and pagers, total share for competitors in fiscal 1989 is 3.8 percent; the rest is NTT's share. Jouhou Tsushin Soyo Kenkyujo (Infocom Research, Inc.), *Jouhou Tsushin Handbook*, Table entitled "Telecommunications Business Market of Type II Carrier," 15.

[277] The possibility of subsidizing local exchange service by other services is discussed in the report by Denki Tsushin Shingikai (see note 195). One reason NTT opposes its own divestiture (separation of local exchange from other services, such as long distance and the department of mobile communications and paging, the latter scheduled for separation in August 1992) is that it believes the price of local exchange service would have to increase because this service is subsidized by profits from long distance.

CHAPTER FIVE

KEY ISSUES CONCERNING BOCS' ENTRY INTO INFORMATION SERVICES IN THE U.S.

5.1 BOCs' Arguments for Entry into Information Services

5.1.1 Market changes after divestiture of AT&T in 1982

In August 1990, "the seven Bell regional holding companies, armed with a new report on current 'competition in the information market,' . . . asked U.S. District Judge H. Greene for complete removal of the AT&T antitrust consent decree's section II(D)(I) information services restriction" of the MFJ. Quoting from the U.S. Court of Appeals' decision remanding information services issues to the lower court, the [BOCs] argued that removal of the restriction is 'within the reaches of the public interest. . . .' "[279]

In their plea for the removal of the restriction in August 1990, BOCs said that the dramatic changes "in the information services market since 1982 . . . 'all strongly favor removing . . . the restriction.' " They continued, " 'in every respect the theoretical dangers of market dominance by the [BOCs] have diminished with time.' "[280] BOCs also declared that the " 'information services market today is too large and embraces too many interchangeable products to be dominated by any local exchange carrier' " and that current players are " 'large, well-financed, experienced and technologically sophisticated.' " According to BOCs, " '[s]uch companies . . . cannot be viewed as likely targets for business tactics that depend on predatory pricing, cross-subsidy, or subtly effective but well-concealed discrimination in interconnection standards.' "[281]

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[279] "Bell RHCs Ask Greene for Complete Removal of Decree's Information Services Restriction," *Telecommunications Reports* (August 20, 1990), 7.

[280] Ibid.

[281] Mason, Charles, "RHCs Plead Case for Information Services," *Telephony* 219, no. 10 (August 27, 1990), 9-10.

BOCs stated that under section VII's "public interest" test, unless the district court for the Columbia Circuit " 'is *certain* that [BOCs] would acquire sufficient power over the information services market to raise prices or restrict output' " of other ISPs, the district court would have to lift the information services restriction. They also said that in the current environment, "a 'precautionary' restriction included in the decree [MFJ] 'is both unnecessary and counterproductive.' "[282]

5.1.2 Contribution to public interest

In June 1990, in hearings before the Subcommittee on Telecommunications and Finance of the House of Representatives, BOCs gave testimonies on how they could contribute to public interest, such as by diversifying information services, making various good services available to rural areas and the disabled, and strengthening U.S. competitiveness in information services throughout the world. The following section contains examples of their testimonies about the merits of their entry into information services.

5.1.2.1 Diversification of information

In the following testimonies, BOCs describe their potential to serve the growth of information services in different fields – if the information services restriction were lifted.

John R. Gunter, vice-president, Information Services Market Plans, BellSouth Corporation, asserted:

> [W]e believe the full participation of Bell holding companies will accelerate [the] growth [of information services], and encourage the widest possible use of such services that technology will allow. We are firmly convinced consumers will benefit from the growth of a vigorous and diverse information industry that delivers health, education, public safety, and

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[282] "Bell RHCs Ask Greene for Complete Removal of Decree's Information Services Restriction," *Telecommunications Reports*, 7-8.

> other services that enhance the quality of life for all Americans.[283]

He also said:

> In a recent nationwide survey, 78 percent of the respondents said they believe ... [BOCs] should be allowed to provide new information services, including health monitoring, home security services, electronic banking, databases and other services.[284]

Gunter said that "an online electronic version of the yellow pages" [EYP] comes at the top of BellSouth's list of services. He explained the merits of EYP:

> The customer would have access to continually updated listings of business customer name, location and telephone number on request. [If the information were] in electronic form, the user could store or organize ... [it] according to his or her needs – by geographic area, business category or other special interest classifications."[285]

Gunter said that because the vast majority of Yellow Pages users know how to use the directory, if the Yellow Pages were available in an electronic medium, the average consumer would have an easy, comfortable, nonthreatening means to learn how to use electronic information.

Using the analogy of a shopping mall to explain another merit of EYP, Gunter said: "[E]lectronic Yellow Pages can be an anchor store in the electronic shopping mall [information gateway]. . . . Just as anchor stores draw traffic in shopping malls, we believe . . . [EYP] will draw

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[283] U.S. Congress, House Committee on Energy and Commerce, *Final Judgment, Part 2: Hearings before the Subcommittee on Telecommunications and Finance*, 101st Cong., 1st Sess., 1989, 70.

[284] Ibid., 67.

[285] Ibid.

traffic in the electronic telecommunications field."[286] He said that as an "anchor store" in the gateway, EYP "will encourage Americans to buy the hardware necessary to connect to the gateway." He also stated that BellSouth wants to use its resources "to help bring entrepreneurs and their specialties into the mall, and design networks that will simplify and lower the costs for consumers to enter the mall."[287]

Robert H. Glaser, senior vice-president, Strategic Planning, Southwestern Bell Corporation, discussed the merit of EYP:

> We also should be allowed to help provide the content, to help stimulate the information services infrastructure. Electronic yellow pages offers great potential for customers and for businesses. Consumers could conveniently find up-to-date information on all kinds of products and services. The availability of electronic yellow pages will help bring Americans up to speed in the information services race.
>
> For example, a disabled shopper could call up a local business' electronic ad, browse the list of products, check the specials, type in an order, and request delivery.[288]

Glaser said that Southwestern Bell (SWB) could not help when approached by the Houston health department "to provide information [through SWB's gateway] on how parents could get free inoculations for their children during an outbreak of measles" – even though the organization already had the information stored in a computer. According to Glaser, BOCs were restricted by the MFJ from "touching content": they could not "create, format, edit, process, manage, or promote information."[289] Glaser said that "[b]y providing electronic

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[286] Ibid., 64.

[287] Ibid., 68.

[288] Ibid., 21.

[289] Ibid., 20.

information content . . . [BOCs] are merely asking to exercise their right to contribute to the diversity of information."[290]

Glaser continued, comparing BOCs to a local supermarket:

> [W]e will have the same incentives as the local supermarket which sells its house brands as well as thousands of other competing labels. The supermarket owner knows to attract customers he must offer a wide selection to be successful. Likewise, we want a wide selection on our gateways so once in a while they will use our house brand.[291] [Emphasis added]

A. Gray Collins, Jr., senior vice-president, External Affairs, Bell Atlantic, said:

> Bell Atlantic had wanted to organize its gateway so that consumers could use one common set of commands to retrieve information from various databases.... [The District Court of Columbia Circuit], however, said that we could not do that because the creation of a uniform command structure would cause us to make editorial judgements [which is banned by the MFJ].[292]

He added:

> If the rules are not substantially modified, our country will continue its antiquated public policy which ignores technology development, slows down the delivery of information services to consumers, and protects a few.[293]

Lee G. Camp, vice-president and general manager, Information Services Group, Pacific Bell, stated:

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[290] Ibid., 21.

[291] Ibid.

[292] Ibid., 6–7.

[293] Ibid., 7.

> In health care, we need new ways of containing costs and streamlining the processes that complicate the practice of medicine today. Information services can move monitoring, diagnostics and even some treatment out of the hospital and into the home.... Information services that link doctors, hospitals, and insurance companies can standardize administrative procedures, dramatically reducing the time and money spent on them, and free doctors to do more of what they should be doing – treating patients.
>
> In education,... [information services] can be used to reduce overcrowded classrooms by offering teachers and students the invaluable opportunity for one-on-one electronic instruction.[294]

And concerning the newspaper industry, Camp said: "Today, of course, radio and newspaper coexist among other providers to meet the voracious appetite of American consumers for information. Similarly, the RHCs [BOCs] can be an additional – not a substitute – provider to meet that growing demand."[295]

5.1.2.2 Benefits to the development of small companies and rural areas

In response to questions posed by Edward J. Markey, chairman, Subcommittee on Telecommunications and Finance, United States House of Representatives, BOCs gave collective answers. When asked, What is the best possible solution for getting services to rural areas of the country, including the areas served by non-Bell companies? BOCs replied that they "have the expertise and resources required to build the network infrastructure and to create services that will make easy-to-use, widely available information services a reality."[296]

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[294] Ibid., 106.

[295] Ibid., 108.

[296] Ibid., 485.

When asked to comment on the "development of minority and small businesses in the information services industry, and the effect the entry of the Bell companies will have on these businesses," BOCs stated they were confident that RHCs' full participation in the information services industry would benefit small and minority-owned businesses. For example, by providing a "public gateway with its associated market exposure and billing services, BellSouth has been able to attract non-traditional, local providers to the gateway." BOCs added that "[p]roviding local storage removes another barrier, because it offers businesses an alternative to buying their own computer and software, at least during the start-up period."[297]

Glaser of SWB said that although they "frequently receive proposals from small entrepreneurs seeking [SWB's] participation" in offering a "richer and fuller variety of information [services] to Americans," the MFJ's content restriction kept SWB from partnering with those small ISPs.[298]

Winston J. Wade, president of the US West Information Technologies Group and vice-president of US West, said that they "work to bring advances in telecommunications technology to the average citizen, to small businesses, to the elderly and to the disadvantaged."[299] He also stated that "[b]usiness customers in rural areas increasingly want access to the same sophisticated computer and data services that businesses in urban areas take for granted." He continued, pointing out that although "U.S. West needs equipment for use in remote rural areas, . . . [l]arge manufacturers are not interested in building this equipment . . . and [t]he MFJ is unclear whether U.S. West can provide the needed funding."[300]

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[297] Ibid., 490.

[298] Ibid., 23.

[299] Ibid., 148.

[300] Ibid., 151.

Casimir S. Skrzypczak, vice-president, Science and Technology, NYNEX Corporation, said that the manufacturing prohibition inhibits regional companies from "developing equipment that would make more information services available to those segments of our society which are least able to find alternatives to public network access, . . . the poor, those who live in rural America, and those who need to work at home."[301]

Gunter of BellSouth said that they "seek permission to provide information services content that is of value to consumers. Electronic yellow page directories and advanced 911 services are two such examples." BellSouth also seeks "incidental inter-LATA relief that will allow us to deliver information gateways and other services to all consumers regardless of where they live, but particularly those who reside in rural communities."[302]

5.1.2.3 Necessity of inexpensive terminals to access information services

BOCs insist that inexpensive terminals are necessary for those who cannot afford to buy a personal computer (PC) and that the terminal is key in development of videotex services and the information services market.

In response to Edward Markey's question, What should the makeup of an electronic gateway entail? BOCs explained:

> A final element is the wide availability of an inexpensive, simple, easy-to-use videotex terminal. The availability of such a terminal is key in making videotex information services a reality for those who do not own a personal computer and modem.... Recent discussions with vendors have revealed that terminal purchases in very large quantities (1 million+) could bring the cost of such a terminal down to around $200. These costs could reasonably be expected to decline over time.... A reasonable lease or rental arrangement (if terminals are purchased in large quantities) could be in the range of

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[301] Ibid., 187.

[302] Ibid., 65.

$5-8 per month over a five-year payback period.[303]

Skrzypczak of NYNEX said that the "MFJ's manufacturing prohibition is impeding the timely introduction of the benefits of new information and telecommunications technology to the American public."[304]

Gunter of BellSouth also said that the "MFJ's manufacturing restriction is another threat to the development of a robust information services industry" and that "[w]ithout these [inexpensive] terminals [designed to work with videotex gateways] and attractive software, the market is not likely to develop."[305]

5.1.2.4 Removal of the inter-LATA restriction for the growth of information services

According to Gunter of BellSouth, "BOCs are well situated to serve as a clearing house between the client and customer" in transactions for financial institutions and the medical services industry.[306] "However," he continued, "any clearing house that is prohibited from crossing LATA boundaries is bound to have very limited application."[307]

Gunter pointed out that "incidental [to the relief of the information services restriction] inter-LATA relief could help develop new information services with practical consumer and business

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[303] Ibid., 483-84.

[304] Ibid., 180.

[305] Ibid., 67.

[306] Ibid., 68. Gunter stated that "some insurance carriers offer electronic processing of claims to doctors, dentists, and pharmacies, but the majority are still handled by mail."

[307] Ibid. Gunter illustrated this point with the example of ATM machines. In spite of "the proliferation of ATM machines that recognize multiple bank cards ... these systems still have limitations." He pointed out that whereas his bank card can be used at home in Atlanta, it is not recognized by ATM machines in Washington.

applications."[308] He said that BellSouth "would like to use [its] expertise and resources to their full potential as a major participant in the information services challenge."[309]

On the other hand, a year later, on May 10, 1990, in testimony before Chairman Markey's subcommittee, John R. Hoffman, Senior Vice President of US Sprint Communications Co., said that BOCs had been permitted to provide various information services and insisted that the authority of BOCs should not be broadened to allow them to offer inter-LATA information services.[310] In his view, permitting the BOCs to provide such services would be unnecessary and an excessive relaxation of the MFJ's absolute ban against them.

5.1.2.5 International competitiveness of the U.S.

BOCs pointed out that the U.S. is not the world leader in the strategic information services industry.[311]

Gunter of BellSouth indicated that the MFJ restriction prevents BOCs from "participat[ing] fully in the development of a robust information services industry that can advance the economic and social goals of our Nation and strengthen America's competitive position in the global marketplace." He said that whereas the U.S. is "the world's leader in the development and deployment of computer and communications infrastructure," it is not "the world's leader in the strategic information services business." One reason, according to Gunter, is that BOCs are not engaged in information services business. He pointed

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[308] Ibid.

[309] Ibid., 70.

[310] U.S. Congress, House Committee on Energy and Commerce, *The Telecommunications Policy Act of 1990: Hearings before the Subcommittee on Telecommunications and Finance*, 101st Cong, 2nd session, 5-8.

[311] U.S. Congress, House Committee on Energy and Commerce, *Final Judgement, Part 2: Hearings before the Subcommittee on Telecommunications and Finance*, 101st Cong., 1st Sess., 1989, 64, 103.

out that "[o]ther governments do not place such constraints on their leading high-tech companies."[312]

Gunter referred to French Minitel as a successful example of videotex. He said that the French Minitel system has more than 8,000 services available and that "the French make 67 million videotex calls per month, compared to only 6.5 million per month in the U.S." He asserted that if BOCs were "free to fully and actively participate in the information services business, [they] could further accelerate the growth and availability of information age services in America."[313]

Camp of Pacific Bell also referred to Minitel in France: "The traveller in France can use a public Minitel terminal located at train stations to discover the name, location, rates and room availability of hotels within the vicinity." He also talked about Philips, the Dutch multinational manufacturing corporation, which "offers a Minitel service that uses artificial intelligence to provide real-time, step-by-step instructions for repairing machinery that the local mechanic has never worked on before. This saves the repair person time and expense of having to be retrained as equipment is constantly changed and improved."[314]

Camp said that compared with these examples, "the United States has become an anomaly in the world, with its relatively small base of active information services users."[315]

Offering possible reasons why the U.S. is behind in the information services, Camp suggested that "we are missing the simultaneous availability of four key elements for success: easy-to-use terminals

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[312] Ibid., 64.

[313] Ibid., 65.

[314] Ibid., 106.

[315] Ibid.

. . . which can access and navigate through an intelligent infrastructure . . . through which are available magnet applications with compelling benefits to consumers . . . behind which exist thousands of diverse applications."[316]

He also indicated that the U.S. really has no "mass market," and that Americans "are a very diverse culture with many different interests." He continued, "The result is that there is no one single, lucrative information services application that will attract the entire market. . . . [and that] to achieve these four key elements requires an environment that encourages cooperation. . . ." Also, Camp maintained that because of the very broad definition of content in the MFJ, "we [BOCs] are prohibited from generating real-time usage reports and analyses for our customers – or using our own directory assistance operators to give out yellow page information. . . ."[317]

Glaser of SWB pointed out that the U.S. "is not keeping up with other countries in the area of information services" and that "the availability of information services is developing faster in other countries than it is in the United States." Referring to EC' 92 as an example of how "the information industry will develop even faster in the future," Glaser said that "[a] European consumer will see his available information base greatly increase." He said that "[i]nstantaneous availability of information is viewed as a competitive advantage," and warned that unless BOCs gear up their progress of information services, "our information services industry will go the way of automobiles, TVs, VCRs and other American products . . . dependent more and more on foreign providers."[318]

Wade of US West pointed out that the process of filing a waiver or similar petition for clarification of the MFJ so that US West can

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[316] Ibid.

[317] Ibid., 107.

[318] Ibid., 22.

develop new products and services takes from fifteen months to two years. According to Wade, modifying the MFJ "through the existing waiver and petition process is no answer. We need congressional help. No industry, particularly one facing international competition, can survive for long with constraints on the speed at which new products are brought to the market." He stressed that "our Japanese and foreign competitors don't have to go through such a process [the MFJ waiver process] in developing and marketing new products in the United States."[319]

5.1.3 Anticompetitive behavior

Glaser of SWB said their activity "will be watched closely by federal regulators . . . through the FCC's ONA rules and the equal access requirements, as well as the FCC's cost allocation rules." Other ISPs, including BOCs, will be watching them as well, he said.[320]

Gunter of BellSouth said:

> ... Federal and state regulatory safeguards already in place were specifically designed to prevent anticompetitive practices.... [BOCs] are required by the MFJ to provide nondiscriminatory access to the various information service providers. We are required by the FCC to provide Comparably Efficient Interconnection and Open Network Architecture for enhanced service providers. The FCC's network disclosure rules require timely disclosure of network technical information and interconnection requirements to equipment manufacturers. The FCC has established rigorous accounting rules for the Bell companies regarding the provision of information-related services. These rules require the strict separation of joint and common costs between regulated and nonregulated operations. Additionally, the FCC and various state regulatory commissions require vast amount of reporting on operational and financial results, regularly conduct audits of our records, and seek the comments of all interested

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[319] Ibid., 152.

[320] Ibid., 24.

> parties in regulatory proceedings which come before them.[321]

He added:

> The customer also has the right to instruct a local exchange company to withhold CPNI from that company's affiliates. The FCC also requires aggregate CPNI, a compilation of CPNI of a general nature, to be made available to unaffiliated information service providers on the same terms and conditions that a local exchange company makes such information available to its affiliated companies. Therefore, we believe existing FCC rules address and eliminate potential misuse of customer proprietary network information.
>
> Beyond these regulatory safeguards, there is a common sense argument about why we would not engage in anticompetitive practices. Discriminating against other information service providers does not make good economic sense for BellSouth. We're all trying to build a strong information services marketplace, and offering a wide diversity of choice is a key to consumer acceptance of information age services. As the information gateway provider, it's to our benefit to have a rich array of content providers beckoning consumers to use the gateway.[322]

In response to the letter from Edward J. Markey, chairman of the Subcommittee on Telecommunications and Finance, BOCs answered collectively:

> As gateway operators, the [BOCs] have strong incentives to respect the needs of their IP customers to keep data proprietary.
>
> The success of [a BOC] gateway depends on the [BOC's] ability to attract a wide variety of IPs willing to offer services on the gateway. The [BOCs] understand that IP customers would choose not to do business with a gateway operator who

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[321] Ibid., 69.

[322] Ibid., 69--70.

> fails to respect their proprietary information.[323]

In the joint plea before U.S. District Judge Greene in August 1990, BOCs said that they

> would be entering the field not as the powerful giants that critics charge, but as virtual babes-in-the-woods. They noted, for example, that at least $150 billion in annual revenues are currently generated from content-and-service segments of the industry, such as publishing and broadcast, with another $100 billion in computer hardware and software services.[324]

"The [BOCs'] pleading also included an affidavit from Jerry Hausman, professor of economics at Massachusetts Institute of Technology, on why the market now is ripe for BOCs' entry. . . . The [BOCs] would be going into the business with 'zero market share,' unable to engage in predation or other anticompetitive conduct, Hausman said." Federal and state regulation, coupled with economic considerations, would make cross-subsidies and discrimination against competitors' access to the local exchange "futile," Hausman argued. He continued, " 'The cost of local exchange transport is considerably less than 1%, . . . Thus the economic impact on competitors of [BOCs] access price discrimination, even if it were successful, would not be of significant anticompetitive consequence.' "[325]

5.2 Opponents to BOCs' Entry

The following stakeholders oppose lifting of the ban on BOCs' information services for two major reasons – what they see as BOC anticompetitive behavior. First, stakeholders fear the possibility of discrimination by BOCs in access to their local network, and second, they fear the possibility of cross-subsidization of information services

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[323] Ibid., 484–85.

[324] Mason, "RHCs Plead Case for Information Services," 10.

[325] Ibid.

business by the revenue from local exchange. Such anticompetitive behavior reportedly is caused by a BOC monopoly in local exchange, so-called "bottleneck power" (this will be examined further in section 5.5.1 by reviewing the statement of the American Newspaper Publishers Association (ANPA), which is said to be the strongest opponent to BOCs' entry into information services.[326]

After the Appeals Court for the District of Columbia Circuit remanded to the district court the case where BOCs seek to lift the ban on their information services,[327] U.S. District Judge Greene was "obligated to make an independent assessment of whether Bell operating companies should be allowed into the information services market" in light of the broad public interest.[328] The following are stakes of and some claims by the stakeholders against BOCs' entry which were made in the hearings held by the U.S. District Judge Greene.

5.2.1 Newspaper publishers

Stakes. Some newspaper companies are currently providing audiotex services similar to the Talking Yellow Pages, which are provided by R.H. Donnelley, an independent directory publisher.[329] The audiotex services provided by newspaper publishers include stock quotes, sports news, weather reports, information about entertainment, sometimes classified advertisements, and so on.[330] These audiotex services have much in

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[326] "Two members of the House telecommunications subcommittee ... [said that] lifting the information services restriction will be the most difficult item [concerning the draft bill of the 1990 Telecommunications Policy Act] because of opposition from newspaper publishers." Betts, Mitch, "Congress Takes on RBOC Battle," *Computer World*, February 19, 1990 (NEXIS).

[327] The U.S. Court of Appeals for the District of Columbia Circuit made this decision on April 3, 1990.

[328] "Organizations Opposing BOC Information Services Relief Call for Independent Analysis by Judge Greene," *Telecommunications Reports* (October 29, 1990), 11.

[329] Here, an independent directory publisher means a non-BOC directory publisher.

[330] ANPA, *The Media Triangle*.

common with Talking Yellow Pages such as Donnelley's, which not only offers additional and detailed information about the subscriber listing like shops, restaurants, and other businesses, but also offers news, an entertainment guide, calendar of annual events, and so on.[331]

Also, "the newspaper industry stands to lose classified-ad revenue if the proposed new electronic Yellow Pages system is authorized."[332]

According to newspaper publishers

> [T]he real significance of talking yellow pages may lie in their power as a market development tool. Regardless of whether such directories are a financial success, they may acclimate both advertisers and readers to new ways of using the telephone and new ways of conducting business.... All of them [independent directory publishers, BOCs, newspaper publishers, etc.] are convinced the future is at stake.... And we are too.[333]

Thus, newspaper companies and BOCs would possibly enter competition in providing similar information if the restriction were lifted. In fact, newspaper companies reportedly stand to lose classified ad revenue if BOCs could provide Electronic Yellow Pages.[334]

Stakeholder claims. Together, the American Newspaper Publishers Association, the National Black Media Coalition, and the National Newspaper Association (hereinafter, the ANPA coalition) "submitted numerous affidavits arguing that lifting the restriction would be anticompetitive under current market conditions." The ANPA coalition stated that "information services consist of many separate, vulnerable markets that depend on BOC bottleneck facilities [local exchange]" and

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[331] "The Donnelley Directory Introduces the Talking Yellow Pages," 1987 Brochure. See also chapter 2, section 2.3.3 for a discussion of the content of Talking Yellow Pages.

[332] Hall, Carl T., "Telesis Tries for High-Tech Glory," *San Francisco Chronicle*, May 21, 1990, Final Edition.

[333] ANPA, *The Media Triangle*, 14.

[334] *San Francisco Chronicle*, May 21, 1990.

that "[n]o one can seriously contend that the American consumer does not have access to a wealth of information services." In other words, BOCs' entry would spoil the wealth, or diversification, of the information services market.[335]

Glaser of SWB, as already noted (pp. 96-97), supported lifting restrictions on the BOCs. Opposing the point of the ANPA coalition, Glaser stated that BOCs' entry would increase competition, expand variety [of information], and improve efficiency in the industry. He compared BOCs to the local supermarket and said

> [W]e will have the same incentives as the local supermarket which sells its house brands as well as thousands of other competing labels. The supermarket owner knows to attract customers he must offer a wide selection to be successful. Likewise, we want a wide selection on our gateways so once in a while they will use our house brand.[336] [Emphasis added]

The ANPA coalition continued, "The myth that BOC entry would be pro-competitive assumes that the BOCs would start new ventures. It is equally more likely that they would instead acquire existing companies. . . . [T]he BOCs may refrain from providing information services on a comprehensive basis because of their objections to operating subject to the interexchange services restriction."[337] (The reasons for the ANPA coalition's opposition are discussed in section 5.5.1, "Discrimination in Access to the Local Exchange," and 5.5.2, "Cross-subsidization by BOCs.")

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[335] "Organizations Opposing BOC Information Services Relief Call for Independent Analysis by Judge Greene," *Telecommunications Reports*, 11.

[336] U.S. Congress, *Final Judgment, Part 2*, 21.

[337] "Organizations Opposing BOC Information Services Relief Call for Independent Analysis by Judge Greene," *Telecommunications Reports*, 11-12.

5.2.2 Directory (print and electronic) publishers

Stakes. Independent (non-BOC) directory publishers had already started Talking Yellow Pages. Some of them claimed that they were being discriminated against by not getting access to subscriber listings, which are essential to publishing both print and Talking Yellow Pages (we examined the case where R.H. Donnelley sued Southern Bell and Pacific Bell for discriminating against access to subscriber listings in section 5.5.3.1, "Discrimination and Cross-subsidization by BOCs Concerning Electronic Directories"). If the restriction on information services were lifted, independent publishers would be able to compete with BOCs in providing electronic directories like the Talking Yellow Pages, just as they are now in providing the printed Yellow Pages.

Stakeholder claims. "The Association of North American Directory Publishers, representing independent publishers of phone directories, said that . . . '[p]articipation by BOCs [in the information services market] will very probably destroy the prospect for competition in this market [Talking Yellow Pages].' " It continued, stating that BOCs' " 'predatory conduct in the print Yellow Pages market' " is an accurate gauge of " 'the probable effect of BOC entry into this market.' "[338]

Yellow Phone, Inc., and Talking Yellow Pages, Inc., said that " 'while such discrimination [by BOCs] eventually may be detected, enjoining the conduct once discovered, much less remedying past injury, is not only expensive and time-consuming but also likely to prove inadequate to protect the competitive process.' "[339]

5.2.3 CATV operators

Stakes. Currently, BOCs are prohibited from providing cable service in their telephone service areas, either directly or through an affiliate, by the FCC's telco/cable cross-ownership ban (The Cable Act

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[338] *Telecommunications Reports*, October 29, 1991, 12.

[339] "Organizations Opposing BOC Information Services Relief Call for Independent Analysis by Judge Greene," *Telecommunications Reports*, 14.

of 1984). "The ban also prohibits channel services by telcos to their directly- or indirectly-owned affiliates in their service areas. . . . It can be reasonably assumed that provision of video programming falls into the category of information services."[340] So if the ban concerning both telco/cable cross-ownership and information services in the MFJ were lifted, CATV operators and BOCs possibly could enter competition.

Stakeholder claims. The National Cable Television Association stated that BOCs could be expected to act on a " 'uniquely strong incentive to drive out cable competitors' " if they were allowed to enter the cable TV market. Also, it stated that once the factual disputes are resolved, " 'proper findings will show that the BOCs have both the ability and incentive to lessen competition.' "[341]

The California Cable Television Association, "[c]oncerned about the efficacy of federal and state regulatory programs designed to oversee BOC activities, . . . declared that 'based on the competitive impact of lifting the information services restriction on the BOCs under present market conditions as well as the broader public interest implications of the consent decree ban, the restriction should not be lifted.'. . . Citing Pacific Telesis Group's development of several information service-related products, it charged that Pacific's 'record of cross-subsidy and discrimination against competitors' provides 'clear and current evidence of the steps it and other BOCs would be likely to take if the ban were totally lifted.' "[342]

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[340] Koike, *Cable Television and Telephone Companies*, 16, 18.

[341] "Organizations Opposing BOC Information Services Relief Call for Independent Analysis by Judge Greene," *Telecommunications Reports*, 12. In the final House hearing on MFJ legislation held May 10, 1990, Representative Rinaldo's concern was that "[i]f the information [services] ban is lifted, [BOCs] would end up gaining advantage over cable if [the] cable-telco ban someday were eased, because ... [BOCs] would pursue fiber investment [to the home].... [The] result would be subsidized competition [by BOCs]. "Negotiations Next: House Unit Wraps Up Hearings on MFJ Bill without Achieving Consensus," *Communications Daily* 10, no. 92 (May 11, 1990).

[342] *Telecommunications Reports*, October 22, 1990, 41.

5.2.4 Videotex service provider[343]

Stakes. Currently BOCs are providing gateway service, which interconnects users with various databases. If the restriction of information services is lifted and BOCs are allowed to provide "content" itself, they will be in competition with other information service providers (ISPs). The charge to users for connect time to databases as well as telephone charges, subscription fees for using particular services, and advertising revenue will be at stake among them.

Stakeholder claims.

CompuServe Inc., the country's largest provider of online consumer and business information services to personal computer owners, maintains that "BOCs have both the incentive and the ability to cross-subsidize and discriminate." It stated: " 'The court should find that on-line videotex services continue to be entirely dependent on the [BOCs'] bottleneck local exchange networks for interconnection with their customers and that such services are highly vulnerable to subtle discriminatory practices. . . .' "[344] It "recalled that in the triennial review proceedings, the BOCs and Justice [Department] 'claimed that the U.S. was falling behind other developed countries in terms of the on-line videotex services,' " but that in their 1990 filings the position of BOCs and their supporters is that " 'the U.S. information services industry is *robustly competitive*.' " CompuServe also pointed out that "the information services industry's rapid development and steady growth, . . . is no accident" and is due to the MFJ restriction. It denied BOCs' argument that " 'the information services market is so vibrant and competitive that their bottleneck control cannot do not much

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[343] Here, this category includes online database service providers.

[344] *Telecommunications Reports*, October 22, 1990, 40. The district court for the District of Columbia also asserted that information services are vulnerable even to slight manipulation and discrimination in access to transmission quality, thereby making it especially easy for the BOCs to use their bottleneck monopoly anticompetitively if they entered the market. 900 F. 2d at 22.

harm' " since fundamental reasons for adopting the restriction have not changed.[345]

5.2.5 Software and service

Stakes. Those information companies that are engaged in software design and support, data processing, and electronic database services will face competition with BOCs if the MFJ ban that currently prohibits BOCs from providing data processing services is lifted.[346]

Stakeholder claims. ADAPSO, the Computer Software and Services Industry Association, Inc., said that the facts in numerous areas validated[347] " '. . . BOCs' very real ability to injure competition by manipulating the availability, price, and quality of the local exchange services under their control and by cross-subsidizing their information service offerings.' " It offered a suggestion that removal of the restriction " 'would do less violence to the public interest if conditioned on the requirement that . . . [BOCs] provide information services only through arm's-length subsidiaries subject to the decree's non-discrimination obligations.' "[348]

5.2.6 Association of American Publishers

As for the information services market, another opponent, the Association of American Publishers, representing book and professional technical/scientific journal publishers, argued that "the term 'information services' as used in the decree has 'numerous separate product markets'; the 'very nature of the electronic publishing segment

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[345] *Telecommunications Reports*, October 22, 1990, 41.

[346] U.S. Congress, *Final Judgment, Part 2*, 15.

[347] David Peyton indicated this point.

[348] "Organizations Opposing BOC Information Services Relief Call for Independent Analysis by Judge Greene," *Telecommunications Reports*, October 29, 1990, 13.

of the information services industry makes it especially vulnerable to suppression of competition.'. . ."[349]

5.2.7 Interexchange provider (long distance carriers)

Stakes. Interexchange providers are not subject to the MFJ's information services restriction. AT&T was set free from the MFJ's restriction on "electronic publishing"[350] in 1989. (Electronic publishing did not apply to "electronic directory services including listings of general product and business categories.") So AT&T can now provide information that AT&T and its affiliates originate over its own transmission facilities. In this sense, if the information services restriction is lifted, BOCs and interexchange providers could be in competition with each other in that they both provide "content" (information).

But related to this point, concerning the possibility of discrimination in access by BOCs, the *Huber Report* stated that local exchange is not necessarily a bottleneck for information services provided by interexchange providers. It pointed out that Local Exchange Carriers, or LECs have "little control over services that are efficiently provided through national-level gateways." The report continued, "While LEC [local exchange carriers, including BOCs] switches and lines may still be used in distributing these latter services, LECs generally have little control over the network gateways used by the national ISPs, and are not positioned to monitor, impede, or control the last-mile distribution of any particular ISP's services."[351] The report also indicated that concerning audio EYPs (Electronic Yellow Pages, including Talking Yellow Pages), "[a]lternative gateways through

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[349] Ibid., 12.

[350] VIII(D) of the MFJ, filed August 24, 1982, defines *electronic publishing* as "the provision of any information which AT&T or its affiliates has, or has caused to be, originated, authored, compiled, collected, or edited, or in which it has a direct or indirect financial or proprietary interest, and which is disseminated to an unaffiliated person through some electronic means."

[351] *Huber Report*, 6.18.

the national network and AT&T 800 lines may provide a useful alternative to audio EYPs serving national advertisers."[352]

Stakeholder claims. AT&T " 'did not oppose the motions for removal of the information services restriction in the 1987 triennial review on the condition that granting relief *may not be construed to permit BOCs to provide interexchange services or undertake manufacturing.*' "[353]

On the other hand, MCI Communications Corporation said that BOCs' entry into information services " 'would harm competition by raising their rivals' costs and by engaging entry-deterring strategies.' " It also pointed out that federal and state regulation cannot " 'restrain the Bell companies' exercise of market power.' "[354] (See the claim of John R. Hoffman of US Sprint, p. 102.)

5.3 Supporters of BOCs' Entry

In August 1990, BOCs filed a joint request that the district court lift all of the AT&T antitrust consent decree's section II(d)(1) information service restriction. In their quest, the BOCs were supported by the following industrial organizations.[355]

Computer & Communications Industry Association (CCIA) – which comprises "some 60 companies who are manufacturers and/or providers of computer, information processing, and telecommunications products and

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[352] Ibid., 9.4.

[353] *Telecommunications Reports*, October 22, 1990, 2.

[354] "Organizations Opposing BOC Information Services Relief Call for Independent Analysis by Judge Greene," *Telecommunications Reports*, 13.

[355] "Bell RHCs Ask Greene for Complete Removal of Decree's Information Services Restriction," *Telecommunications Reports*, 7.

services[356] – said that " 'BOCs cannot impede competition in the information services market since they cannot exercise or *leverage* their monopoly power in local exchange services to control to any degree output or price in the information services market,' " given the " 'variety of alternative delivery facilities.' " It added that "BOCs do not have a sufficient incentive to develop [gateway services] because they are . . . restricted from generating and providing information services over their own gateways.' "[357]

U.S. Telephone Association (USTA), representing local telephone industries, stated that section II(D)(1) of the MFJ's information services restriction " 'unreasonably and adversely affects the introduction of new and sophisticated information services to 78% of the country's population, . . . [and] it also indirectly affects their introduction for customers of the more than 1300 telephone companies having no ownership affiliation with a BOC.' " USTA also stated that the " 'financial resources and technical know-how of each of the BOCs . . . will promote the rapid deployment of information services by and through other, smaller telephone companies.' "[358]

USTA pointed out that "not only does the restriction 'delay the availability of innovative information services in every community in the nation,' but it also 'negatively impacts modernization of our country's telephone network infrastructure.' " It also pointed out that " '[r]estrictions that limit the provision of services over telephone company networks artificially restrict the companies' opportunities to develop additional network access and network usage revenue streams.' "[359]

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[356] U.S. Congress, *Telecommunications Policy Act, Part 2,* 73. Statement by Ms. Stephanie Biddle, executive vice-president, Computer & Communications Industry Association.

[357] Mason, "RHCs Plead Case for Information Services," 7.

[358] Ibid., 7-8.

[359] Mason, "RHCs Plead Case for Information Services," 8.

Action for Children's Television, "leading a diverse group of commentors, argued that the current restrictions . . . [have] undermined Judge Greene's goal of fostering a nationwide videotex infrastructure."

It also said that "BOC provision of electronic Yellow Pages is a necessary 'core' element in gaining consumers acceptance and launching a successful . . . [videotex] infrastructure."[360]

Videotex Industry Association (VIA) pointed out that the industry " 'is clearly far short of its mass market goal.' " It assumed that " 'BOCs have a value-added role which . . . can maintain videotex's current significant rate of growth.' " Public interest " 'will be best served today,' " concluded VIA, " 'through BOC provision of information services that preserve and advance the competitive environment within the videotex industry.' "[361]

5.4 Opinion and Order of Government Agencies

5.4.1 Department of Justice

The Department of Justice (DOJ) changed its position on the MFJ restrictions based on information provided by the *Huber Report* in the MFJ's first triennial review in 1987.[362] It recommended "the complete removal of manufacturing, non-telecommunications, and information restrictions as well as the modification of the interexchange restriction."[363]

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[360] Ibid.

[361] Ibid., 8.

[362] Brief of the American Newspaper Publishers Association, National Black Media Coalition, and the National Newspaper Association, dated October 17, 1990, in opposition to the motions to remove the information services line of business restriction imposed on the Bell Operating Companies by the Modification of Final Judgment, *USA v. AT&T Co.*, 552 F. Supp. 131 (D.D.C. 1982), *aff'd mem. sub nom., Maryland v. USA*, 460 U.S. 1001 (1983), *modified, USA v. Western Electric Co.*, 673 F. Supp. 525 (D.D.C. 1987), 714 F. Supp. 1 (D.D.C. 1988).

[363] 900 F. 2d at 20.

The Justice's Antitrust Division stated that the ban " 'must be removed unless additional facts establish a certainty of [BOCs'] anti-competitive effect.' " It also pointed out that " '[d]evelopments since 1982, however, provide no basis for a conclusion that the removal of the (restriction) would be certain to lessen competition' " and that the assumptions upon which the ban was based " 'have proved flawed. . . . Thus, there is no continuing justification for the information services restriction.' " The department admits "the FCC has experience and expertise in enforcing non-discrimination safeguards." It said that regulation thus " 'makes it extremely unlikely that discrimination sufficient to cause anticompetitive effects would occur' " under current market and technical conditions.[364]

5.4.2 The FCC

The FCC argues that " 'allowing the BOCs to provide a full range of information services . . . will serve the public interest by enhancing competition' and 'by making additional information services available, particularly to residential and small business consumers.' "[365]

On this point, in a collective answer to Edward J. Markey, chairman, House Subcommittee on Telecommunications and Finance, BOCs said that just as "French videotex [Minitel] had already generated in excess of 5,000 new jobs" in France, BOCs' entry could benefit small and minority-owned businesses. As an example, they referred to BellSouth, which "has been able to attract non-traditional, local [information] providers to the gateway" by offering a public gateway with its associated market exposure and billing services. They also explained Pacific Bell's plan to provide "a storage facility capability on its [own] gateway offering" that will allow potential ISPs to make use of it "with little or no hardware/software experience or up-front capital investment."[366] On the other hand, the district court is "apparently concerned with the

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[364] Mason, "RHCs Plead Case for Information Services," 5-6.

[365] Ibid., 6.

[366] Hearings before the Subcommittee on Telecommunications and Finance, Serial No. 101-92, 490-91.

possibility that BOC entry into new markets would disadvantage or destroy small and innovative firms in those markets."[367]

The FCC says that the information services restriction " 'needlessly reduces the incentives the BOCs otherwise would have to add new functionalities to the public switched network' "[368] and that it " 'unnecessarily restricts access by the BOC's subscribers to information services similar to those that are offered by independent telephone companies.' " The FCC reported that it " 'now has had substantial experience in implementing non-structural and procedural safeguards in the context of BOC provision of non-regulated services and products.' " The Commission says that although the U.S. Court of Appeals for the Ninth Circuit vacated FCC's CI.III decisions,[369] it does not mean that there will be "an absence of effective FCC regulation as the BOCs enter information services." The FCC says it will continue to use its CI.III rules and cost allocation rules to constrain BOC anticompetitive behavior.[370]

On the other hand, some stakeholders including the ANPA coalition,[371] CompuServe,[372] and state regulators (such as the New York State Department of Public Service)[373] said that some orders by the FCC,

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[367] Decision by the Appeals Court for the District of Columbia (April 3, 1990), 29.

[368] Actually, BOCs contended that they were unlikely to invest extensively in fiber optics unless allowed into information services. "Negotiations Next: House Unit Wraps Up Hearings on MFJ Bill without Achieving Consensus," *Communications Daily* 10, no. 92 (May 11, 1990).

[369] This opinion was filed June 6, 1990.

[370] Mason, "RHCs Plead Case for Information Services," 6-7.

[371] 714 F. Supp. at 22.

[372] *Telecommunications Reports*, October 22, 1990, 41.

[373] "Organizations Opposing BOC Information Services Relief Call for Independent Analysis by Judge Greene," *Telecommunications Reports*, 14.

including the cost allocation rule, are not effective enough to constrain anticompetitive behavior by BOCs.[374]

5.4.3 State regulator

New York State Department of Public Service said that with regards to NYNEX and its affiliates, it " 'cannot assure the court that NYNEX will not continue to favor its unregulated entities at the expense of competitors and ratepayers if permitted to enter the information services industry.' " It also pointed out that current FCC's cost allocations rules " 'do not yet appear to be effective.' "[375] The California Public Utilities Commission also supports lifting the information services restriction.[376]

5.5 Key Points of Debates Concerning BOCs' Entry into Information Services

In this section, we examine major reasons why some stakeholders who fear possible anticompetitive behavior by BOCs oppose BOCs' entry into information services. One concern is that BOCs would discriminate against competitors in access to the local exchange, telephone subscriber listings, and customer information; another major concern is the possibility that BOCs would cross-subsidize information services through regulated local exchange.

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[374] The Appeals Court for the District of Columbia Circuit says in its April 3, 1990, decision that "[t]he very premise of this case [remanding and reversing the district judge's ruling dealing with information services] was that the FCC could not effectively control AT&T." Appeals Court for the District of Columbia Circuit, 33.

[375] "Organizations Opposing BOC Information Services Relief Call for Independent Analysis by Judge Greene," *Telecommunications Reports*, 14.

[376] Mason, "RHCs Plead Case for Information Services," 8.

5.5.1 Discrimination in access to the local exchange

5.5.1.1 Evaluation of market changes

As a premise of the debates, we need to note that there is a great difference in recognition concerning the information services market among BOCs, opponents, and the court. In the triennial review in 1987, "the district court rejected [the BOCs'] arguments that circumstances [in the information services market] had changed since the issuance of the decree. . . . "[377]

While BOCs claim that they saw " 'dramatic changes in the information services market since 1982' " and that " '[i]n every respect the theoretical dangers of market dominance by the [BOCs] have diminished with time,' "[378] the ANPA coalition, in their "Opposition" submitted to the district court, describe the information services market as follows:

> [W]hile the consumer videotex market continues to grow, "only about one percent of the U.S. population is using videotex services today." Earnings for companies tend to be unpredictable from quarter to quarter.
>
> Most information services providers are start-up companies or new ventures by small and medium-sized business, such as newspapers. With limited resources, they are ill-positioned to withstand anticompetitive activities from their supplier of essential facilities – the BOC.[379]

They also pointed out that

> [l]ocal information service providers that are directly connected to a BOC's local exchange facilities in order to reach their subscribers ... are particularly susceptible to discrimination.[380]

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[377] Decision by the Appeals Court for the District of Columbia (April 3, 1990), 22.

[378] "Bell RHCs Ask Greene for Complete Removal of Decree's Information Services Restriction," *Telecommunications Reports*, 7.

[379] 714 F. Supp. at 13.

[380] Ibid., 14.

On this point, while the district court is also "concerned with the possibility that BOC entry into new markets would disadvantage or destroy small and innovative firms in those markets," the appeals court says that "[n]ew entry or increased competition in any market typically hurts or sometimes even destroys existing competitors." Therefore, according to the appeals court, "unless the entering BOC will have the ability to raise prices or restrict output in the market it seeks to enter, there can be no substantial possibility that it could use its monopoly power to 'impede competition.' "[381]

Another view of this market change concerns the alternatives of local exchange services, which includes bypass technologies. Although BOCs claim that " 'most competing . . . [ISPs] are not dependent upon the local exchange,' " the DOJ cannot conclude that the alternative transmission media would in themselves effectively constrain discrimination against most ISPs. The District Court for the District of Columbia Circuit also found that " 'bypass technologies do not provide meaningful channels to the ISPs.' "[382] The Court of Appeals for the Ninth Circuit, in its order (filed June 6, 1990), pointed out that

> although the record contains an impressive array of evidence demonstrating the technical feasibility of bypass,... the record is devoid of evidence that the potential for bypass is significant enough to reduce the BOCs' ability, as a practical matter, to exact monopoly rents from basic service customers by burdening them with costs from unregulated activities.[383]

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[381] Decision by the Appeals Court for the District of Columbia (April 3, 1990), 29-30.

[382] 714 F. Supp. at 11, note 36.

[383] 905 F. 2d at 5761.

5.5.1.2 Possible discrimination by BOCs in access to the facilities and information concerning local exchange

The affidavit of Professor Roger G. Noll[384] shows some examples of possible discrimination by BOCs:

- Vertically integrate with, and monopolize, information services markets to implement price discrimination more effectively.
- Reduce the total diversity of, and hence their costs for, information databases.
- Increase network costs as a means of augmenting regulated monopoly profits.
- Transfer costs from the unregulated to the regulated domain in order to increase market share in the unregulated domain.[385]

The ANPA coalition's "Opposition" contains some examples of discriminatory techniques concerning design of and access to local exchange networks that are hard to detect and prevent. The testimony indicates that long-term design of local exchange networks "is critical to [ISPs] who must have unbundled access[386] to local exchange service offerings so that they may pick and choose elements deemed necessary for a successful offering." But it says that apparently "current BOC

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[384] Knoll is the director of the Public Policy Program at Stanford University.

[385] 714 F. Supp. at 15-16.

[386] "Unbundled access" means that independent ISPs use some feature of the BOC's local network to make it difficult for independent ISPs to survive. "For example, an independent information provider may want to use the BOC signalling network to allow customers to select particular information but retain the provider's own specialized equipment and software for the storage and retrieval of the information for subsequent transmission.... The BOCs can discourage or entirely thwart such a move by making the required access to the signalling network technically difficult through the fundamental design of their local exchange networks." Ibid., 16, note 61.

network design plans[387] and activities could result in the local exchange networks not being unbundled at all" and that

> [b]y tightly bundling together the signalling, information transport, control, data processing, and information storage and retrieval portions of the network of the future, the BOCs can make it [unbundled access to the local exchange networks] difficult ... for independent electronic publishers, gateways, and other information service providers to provide service.[388]

The *Huber Report* explains the concerns of independent ISPs. They fear

> discriminatory delays in providing or restoring private line service, below-tariff access to basic telecommunications services for a LEC's ISP affiliate, misuse of customer and competitor information (CPNI), and the full range of access discrimination issues that fall short of outright denial of interconnection.[389]

Robert A. Mercer, senior vice-president, Hatfield Associates, Inc. (a consulting firm specializing in engineering, economic, market and policy studies in telecommunications field)[390] describes in his affidavit BOCs tactics that would "competitively harm competing information service providers" in network access. Listed below are several such techniques, which include a BOC's ability to

- Provide faster installation times, higher quality, more reliable facilities, and faster restoration of local loops [telephone service] for those customers who choose to subscribe to its [BOCs'] information services.

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[387] As to BOC involvement in network design, the *Huber Report* states that "[t]oday's BOCs ... rely entirely on outside providers of their switches, and do little design or customization of their own" (emphasis added). *Huber Report*, 6.30-6.31.

[388] 714 F. Supp. at 16-17.

[389] *Huber Report*, 7.10.

[390] This affidavit is summarized in 714 F. Supp. 1 (D.D.C. 1988).

- Delay the processing of competitors' orders for new circuits, changes, and moves.

- Provide poorer quality or slower maintenance and emergency restoration for the [other] information service provider's lines.

- Refuse to tell competitors sufficiently in advance[391] about changes in network interfaces or availability of circuits and switches.[392]

- Refuse to offer types of network interfaces need by competitors.[393]

Another possible means of discrimination identified by the ANPA coalition concerns access by independent ISPs to Customer Proprietary Information (CPNI), information about the usage of customers using information services.[394] In this rule, although ISPs must get prior consent by the customer to obtain CPNI from BOCs, "BOC-affiliated enhanced services personnel are free to access a customer's CPNI at any

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[391] In CI.II, the FCC requires LECs "to make timely public disclosure of planned changes in network design and operations" (emphasis added). *Huber Report*, 6.31, note 90.

[392] The CI.III requires each BOC to "notify its competitors in the enhanced services industry of changes in the network that may affect the provision of enhanced services so as to permit competitors to take advantage of the changes." 905 F. 2d at 5750.

The MFJ "reinforces the affirmative equal-access requirements concerning disclosure of network information." *Huber Report*, 6.31. Section II(B)(2) of the MFJ "expressly requires BOCs to provide equal access to 'technical information' [defined in section IV(L)] and 'interconnection standards.'... Likewise, section II(B)(4) prohibits discrimination in the provision of 'new services and the planning for and implementation of the construction or modification of facilities, used to provide ... information access.' " *Huber Report*, 6.31, note 92.

[393] 714 F. Supp. at 17.

[394] It is one of the CI.III nonstructural safeguards imposed by the FCC. 905 F. 2d at 5750.

time[395] unless the customer specifically *prohibits* release of such information."[396]

The ANPA coalition points out that the rules in CI.III are not effective enough to prevent BOCs' discrimination. Mercer's affidavit indicates that "the rules [of CI.III] still allow the BOCs a wide degree of discretion in designing new equipment for the local exchange network." It continues, "[T]he advance notice is limited to the 'make/buy' point, which is inadequate to give competitors the same planning advantages as the BOC affiliate."[397]

5.5.2 Cross-subsidization by BOCs

The other major reason independent ISPs oppose BOCs' entry is that they fear BOCs would cross-subsidize information services through revenue from regulated local exchange services. One example cited by the ANPA coalition is the case where NYNEX encouraged its regulated subsidiaries, New York Telephone and New England Telephone, to purchase goods and services from an unregulated subsidiary, Material Enterprises Co. (MECO), at higher prices than those of competitors providing the same goods and services – at the expense of local ratepayers.[398]

The *Huber Report* also showed that "more than half of the costs of computerized database and electronic publishing are in areas with a high potential for cross-subsidization, such as sales, marketing, and

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[395] BOCs command an advantageous position in access to CPNI. For example, even before initiating the service, providers of the database service would normally have to supply the local LEC (BOC) with information about the location of computers and the number of lines required for interconnection to local customers, which would reveal that the firm's judgement as to the location of concentrations of potential customers, project volumes, and equipment requirements. *Huber Report*, 7.10, note 24.

[396] 714 F. Supp. at 25.

[397] Ibid., 25-26.

[398] Ibid., 20.

administration."[399] The district court also believed that the BOCs would overcharge local ratepayers.[400]

On the other hand, "[t]he BOCs contend that cross-subsidization is unlikely because there are few 'common costs' to be shifted."[401]

The *Huber Report* analyzed the possibility of cross-subsidization by BOCs by each aspect of their operation as follows.[402]

• ISP Use of LEC Telecommunication Services

As stated in the *Huber Report*, "A LEC's potential ability to use its own basic telecommunications services below cost will be of comparatively little concern in markets where the principal competition to network-based information services come from CPE." Besides that, "no single RHC's access tariffs can account for more than about 10 percent of a national ISP's total costs...."[403]

• Content Origination

As stated in the *Huber Report*

> preparation of information content itself is one activity that LECs would have notably little opportunity to cross-subsidize.[404] Running a local telephone exchange does not require any reporters, copy editors, joke writers, financial analysts, astrologists, or other information-content providers. BOC involvement in the information content end of information markets

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[399] Ibid., 21.

[400] Decision by the Appeals Court for the District of Columbia (April 3, 1990), 30.

[401] 714 F. Supp. at 21.

[402] *Huber Report*, 6.34-6.37.

[403] Ibid., 6.34.

[404] The ANPA pointed out that BOCs "have a lot to learn about the information business, especially local market needs and customer preferences." ANPA, *The Media Triangle*, 23.

> would raise few real cross-subsidy concerns...[405]
>
> ... except demographic types of databases, which might draw on LEC directories, service-order records, and the like.[406]

• Collocation

As stated in the *Huber Report*

> [LECs] might be able to locate information service hardware on the same premises as its basic telephone operations. Protocol conversion cards, for example, can use the same frame and power supply as a packet switch,... When connections between the basic and enhanced-service [information services] systems is required, collocation gives the [LECs] the cost, maintenance, and reliability advantages of a short wire."[407]

• Joint Use of LEC Operating Personnel

As stated in the *Huber Report*, "Information services require personnel to install and maintain equipment and operators to interact with customers." Since "payrolls still account for a substantial share of providing even the most advanced electronic information services," LECs' affiliated ISPs might share the personnel from the basic operations or shift training costs through well-timed reassignment of the personnel.[408]

• Marketing and Billing

As stated in the *Huber Report*, marketing and billing can account for a large fraction of an ISP's total costs. "Sales, billing, and other

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[405] *Huber Report*, 6.35.

[406] Ibid., 7.13.

[407] Ibid., 6.36.

[408] Ibid.

general and administrative expenses may account for 80 percent of a voice-mail service bureau's total costs."[409]

• Research and Development

As stated in the *Huber Report*

> Making information services operate seamlessly with a complex and evolving network requires ongoing research into network operations, terminating hardware, and associated software. Both directly and through Bellcore, LECs already devote enormous resources to that end. Those same resources might readily be used to the advantage of a LEC-affiliated ISPs.[410]

5.5.3 Concern about effectiveness of state regulators

Another concern of the ANPA coalition is that bottleneck local exchange is affected by state regulators. The reason for their concern is pointed out by the affidavit of Glen O. Robinson of the University of Virginia in Charlottesville, Virginia; he asserts that most states "have no program designed . . . to prevent anticompetitive abuses in information service markets."[411] The coalition refers to the fact that currently "70% of all BOC facilities are regulated by the states and only 30% by the FCC."[412] It is concerned that a failure by state regulators "to uncover and prevent similar anticompetitive practices in the provision of information services, at this still early stage in the development of the industry, could well prove fatal to many of the smaller, regionalized information service providers such as newspapers."[413]

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[409] Ibid.

[410] Ibid.

[411] 714 F. Supp. at 28.

[412] Ibid., 27.

[413] Ibid., 29.

5.5.3.1 Discrimination and cross-subsidization by BOCs concerning electronic directories

This section highlights the existing issue concerning alleged BOC discrimination against independent directory publishers in their access to telephone subscriber listings, which are essential to providing electronic directories, and the probable issue of BOCs' possible cross-subsidization. As an actual example, we focus on the Talking Yellow Pages, which are currently provided by independent directory publishers and others.

5.5.3.2 The importance of subscriber listings

The affidavit of Ralph D. Hillman, president, Donnelley Information Publishing, Inc. (a subsidiary of R.H. Donnelley, a Dun & Bradstreet Company) discusses the importance of subscriber listings in directory business (both paper and electronic) and Donnelley's experience with the difficulty in obtaining the listings.

First, Hillman said that "[a]fter AT&T's divestiture, . . . major independent directory publishers . . . enter[ed] into head-to-head competition with the telephone companies [also publishers] in major metropolitan markets." Such a tendency increased the importance of the accuracy and completeness in content and distribution for independent publishers to compete with utility[414] directories.[415]

Hillman referred to the following two cases as examples that show the importance of getting up-to-date subscriber listings in two points. First, the listings comprise information provided to users of directories (both print and electronic). If they are neither up-to-date nor accurate, directories are not used and lose value as an

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[414] Here it means telephone companies – that is, BOCs.

[415] Affidavit of Ralph Hillman, United States of America v. Western Electric Co., Inc. and AT&T, filed in D.C D., Civ. Act. No. 82-0192 (HHG), ¶ 8 (Oct. 12, 1990).

advertising medium.[416] Second, the listings (mainly business) include potential advertisers, such as newly established businesses which are likely to be interested in making themselves known to the community.

He claimed that BOCs have "an insuperable advantage over any other publishers in contacting . . . potential advertisers" by getting a "continuous stream of business service [orders]"[417] and that "[p]eriodic alphabetical updates offered by some telephone companies to independent publishers are no substitute for the complete service order data provided to their directory publishing affiliates, since they omit classified heading information, SIC codes [Standard Industry Classification], customer contact and related business information."[418] He pointed out that "the local exchange companies generally provide their own directory operation or advertising sales agent broad access to their standing databases of subscriber information and a continuous (daily) stream of service order activity reflecting new connects, disconnects and directory-affecting changes."[419]

5.5.3.3 Examples of alleged discrimination in access to telephone subscriber listings

- Southern Bell, BAPCO[420] v. Donnelley

In his affidavit, Hillman describes the following story. In August 1984, Donnelley entered the classified advertising directory market

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[416] Hillman's Affidavit, ¶ 12. The *Huber Report* also maintains that "[k]eeping abreast of changes in listings is a crucial aspect of a yellow pages business, and is likely to be especially important with audio EYP [Electronic Yellow Pages], both to provide completeness and accuracy to customers and to sell advertising space to new businesses."

[417] Hillman's Affidavit, ¶ 14. The *Huber Report* also points out that "a LEC obtains this list [of the subscribers] at little cost to itself by virtue of its local monopoly; competing EYPs [Electronic Yellow Pages] probably cannot replicate the list at any reasonable cost." *Huber Report*, 9.8.

[418] Hillman's Affidavit, ¶ 14.

[419] Ibid., ¶ 21.

[420] BellSouth Advertising & Publishing Corporation (BAPCO) is a wholly-owned subsidiary of BellSouth engaged in yellow pages publishing.

(yellow pages) in Miami in competition with Southern Bell's book. He wrote BAPCO, requesting the subscriber listings being offered for sale to directory publishers. In mid-September, Southern Bell responded, stating it "would provide alphabetical subscriber listing paper print-outs . . . [that] would include only the name, telephone number, and address of residence/business listings." The lists did not identify the business classification (headings in Yellow Pages) of the business subscribers.[421] Donnelley requested this subscriber information from Southern Bell on the same conditions that it is provided to BAPCO, including business classifications (headings in yellow pages) updated on a daily basis.

In August 1986, Donnelley filed an antitrust counterclaim[422] with the Florida court. Although Southern Bell agreed to offer the information that Donnelley requested, Southern Bell attached a requirement that Donnelley must "publish a directory within 90 days [publishing such a directory normally takes one year] after receipt of each weekly installment of such information." According to Hillman's affidavit, Southern Bell also insisted that "Donnelley would be licensed to use the

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[421] Hillman's Affidavit, ¶ 24-25. As another example, US West does not provide headings (business classification) to other companies, including directory publishers, in sales of its subscriber listings. It provides the listings on magnetic tape. [NTT internal material, report of the interview with US West, November 20, 1989 (hereinafter, *NTT Interview with US West Communications*).]

Copyright for yellow pages basically is upheld as a compilation of facts or under the "sweat of the brow theory" – i.e., the effort of authorship (for details, see McManus, Thomas, *Telephone Transaction-Generated Information: Rights and Restrictions* (Cambridge, Mass.: Program on Information Resources Policy, Harvard University, 1990), 7, 72, and Wall Chart II, "Legal Levers on Telephone Transaction-Generated Information." According to the *NTT interview with US West Communications*, headings contained in yellow pages do not have to be provided, and only the information in white pages has to be provided.

[422] Before that BAPCO, Southern Bell's subsidiary, filed a copyright infringement suit against Donnelley for its " 'keying' (entering the data into a computer) the existing BAPCO book for purposes of generating leads for Donnelley sales representatives." The judgment was holding for BAPCO on the copyright issue. Donnelley is appealing. Hillman's Affidavit, ¶ 26, 34.

data solely for purposes of print directories, foreclosing any possibility of developing new electronic services in the Miami area."[423]

Hillman's affidavit further stated that although Donnelley finally obtained Southern Bell's concession to provide subscriber data in satisfactory format (this antitrust claim was settled outside the court), "Donnelley had been forced to publish for three years directories that were necessarily less complete and less accurate than Southern Bell's." As a result, "Donnelley was forced to exit south Florida markets."[424]

• Donnelley v. Pacific Bell

Hillman's affidavit referred to another case in California where Pacific Bell allegedly was particularly active in denying access to subscriber data for use in providing electronic information services.[425]

"In southern California, Donnelley publishes 18 classified telephone directories serving over 200 communities." Pacific Bell and Donnelley are competitors with each other. According to the affidavit, Donnelley had to rely on "inferior information which impedes its ability to compete in the publication of classified directories and stymies its ability to develop new information products such as electronic directories."[426]

As stated in Hillman's affidavit, "Donnelley began its attempt to obtain subscriber information from Pacific Bell on January 2, 1986, by requesting from Pacific Bell [current] business subscriber list information in its possession": subscriber names, addresses, telephone numbers, business classifications (headings), primary business listing, and so on. Donnelley also requested billing authority, customer contact

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[423] Ibid., ¶ 29-31.

[424] Ibid., ¶ 33.

[425] Ibid., ¶ 35.

[426] Ibid., ¶ 36-37.

identification, credit information, directory distribution information and equipment information.[427] "Donnelley also requested updates of Pacific Bell's service order activity (new connects, disconnects, etc.)." According to the affidavit, "[u]pdates of subscriber information, . . . are crucial to directory publishers in identifying new customers and targeting potential new advertisers."[428]

"On January 13, 1986, Pacific Bell . . . claim[ed] that Donnelley already was receiving some business subscriber information under its Reproduction Rights Tariff, Schedule Cal. P.U.C. No. A5,5.7.4 (effective April 18, 1985)," which "provided only that publishers could reproduce the information contained in Pacific Bell's annually published *white pages* directories."[429] According to the affidavit, the tariff "further provided that the information offered could be used only for the publication of print directories" – not for electronic yellow pages.[430]

In the tariff, which became effective June 1988 after the negotiation between Pacific Bell and Donnelley, Pacific Bell would offer the listings with updates to be supplied on a monthly basis and would provide the information on magnetic tape, but would require that the information supplied be used only for the publication of directories and

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[427] Some information that Donnelley requested was not allowed to be provided because of the state regulation: "[California] Public Utility Code Section 2891 prohibits telephone companies from making a residential customer's calling patterns, credit information, services, or demographic information available unless that customer has given written consent to do so with the exceptions of information provided for inclusion in a directory, for a directory assistance...." "CPUC Investigation of Access to Utilities Customer Information," *PUC News*, California Public Utilities Commission News Release, January 24, 1990.

[428] Hillman's Affidavit, ¶ 38.

[429] The U.S. Court of Appeals for the Eighth Circuit, reversing the judgment of the district court, stated that *a white pages directory is copyrightable* as a "work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship." 17 U.S.C. section 101.

[430] Hillman's Affidavit, ¶ 39–40.

for no other purpose (i.e., Talking Yellow Pages). As for headings, Pacific Bell said that they could not provide them without CPUC approval.[431]

According to the affidavit, in December 1988 Pacific Bell provided Donnelley another set of tapes, but they contained only monthly white page listings comparisons ("these comparisons simply showed differences between one month's white pages file and another month's white pages file"), which were coded "to indicate new connects, disconnects or changes. But because these changes were reported as unrelated events, it would be impossible for directory publishers to use these coded listings to track the changes that have occurred in the data base."[432]

Donnelley already filed a formal complaint to CPUC in June 1988. The affidavit states "the rate of CPUC's progress in addressing, much less resolving, the issues has been entirely inadequate."[433]

In the above-mentioned two cases, some of the information that Donnelley requested from the BOCs, such as that concerning customers' billing and credit, could not be provided to independent publishers because of state regulation based on the protection of privacy.[434]

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[431] Hillman's Affidavit, ¶ 56, 61.

[432] Hillman's Affidavit, ¶ 62. What Donnelley wanted were the lists of changes in the subscriber listings that clarify which subscriber listings represent new businesses to the area, or relocated businesses, or subscribers with new names, etc.

[433] Hillman's Affidavit, ¶ 74. In January 1990, the CPUC "opened an investigation into privacy issues involving customer information." The investigation included the issue "whether a [public] utility should make available to its competitors the same information [the directory listing information] it has for its own use...." CPUC said that one of the proceedings " 'involves an application by Pacific Bell to offer a new business subscriber information service which would make available to all requesters, at market prices, the same information that Pacific currently provides to Pacific Bell Directory' " (emphasis added). *Telecommunications Reports*, February 5, 1990, 17.

[434] See note 425.

Refusing to provide headings is not antitrust behavior, either, because the copyright for Yellow Pages is established.[435]

Other conditions, such as the frequency of updating listings, purpose of using the listings, and format in which the information is provided, seem to be up to the negotiation between the BOCs and independent publishers. With regards to this, one BOC said that although it is providing the subscriber listings on the same condition as to its own subsidiaries, it needs to go through various procedures to provide the subscriber listings to non-affiliated publishers.[436]

According to Thomas McManus,

> the yellow pages is a very profitable business for RBOCs ... and new telephone service orders are a yellow pages sales tool. NRDCs [non-RBOC directory companies] claim that while RBOCs clearly have an incentive to sell new service orders for revenue, RBOCs have a greater incentive to restrict the access of yellow pages competitors to TTGI [Telephone Transaction Generated Information] in favor of their own yellow pages subsidiaries. NRDCs claim that RBOCs have a stake in quicker access to new telephone service orders for competitive advantage....
>
> ... NRDCs point out that RBOCs increasingly are in business other than basic telephone service, and therefore, RBOCs have a stake in new telephone service orders similar to that of NRDCs.[437]

As for BOCs' discrimination, McManus points out that some stakeholders have alleged that

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[435] McManus, *Telephone Transaction-Generated Information*, Wall Chart II, "Legal Levers on Telephone Transaction-Generated Information."

[436] NTT report on fact-finding inquiry about the sales of telephone subscribers' information, November 1987 (Interview with NYNEX International Co., US West, Pacific Bell, Bell Atlantic, Southern New England Telephone, and others).

[437] McManus, *Telephone Transaction-Generated Information*, 12.

> ... RBOCs are taking advantage of customer privacy and ownership rights to secure preferred access to the information for themselves.... Thus, RBOCs can claim that consumers are critical of plans to sell the information to marketers; in such a situation, privacy could be an RBOC tool against access by others but might also restrict the access of an RBOC's own subsidiaries.[438]

5.5.3.4 Cross-subsidy in electronic directory (Talking Yellow Pages)

The *Huber Report* examines the potential for cross-subsidy with BOCs in electronic yellow pages (i.e., Talking Yellow Pages, or TYP). For the potential of cross-subsidy with RHC operations, see the *Huber Report*, Table EP.6, "Common Costs."

• Operators and Operator Salaries

The functions of TYP operators are similar to those of regular directory assistance operators. "Operators could be switched routinely from one duty to another as load demands dictate."[439]

• Production/Information

TYP makes "extensive use of computer hardware and software to store and access the database. Collocation of facilities, joint maintenance, and shared research and development might provide avenues for cross subsidy."[440]

• Listings

LECs obtain the subscriber list "at little cost to itself by virtue of its local monopoly; competing [TYP providers] probably cannot replicate the list at any reasonable cost.[441] . . . Listings represent a

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[438] Ibid., 14.

[439] *Huber Report*, 9.7.

[440] Ibid.

[441] Teleconnect USA Directory Co., a unit owned by the Teleconnect subsidiary of Telecom USA, Inc., pointed out that US West had engaged in discriminatory pricing of subscriber listings, in violation of the

minor aspect of costs at the present time because virtually all BOCs offer the list for sale. Should BOCs refuse to offer the list on reasonable terms, listings would represent a major source of shared costs."[442]

• Sales Advertising, Marketing and Administration; billing

As stated in the *Huber Report*,

> LEC accounting, general services, personnel staff, maintenance, security and other executive functions could be shared by affiliated [TYP] providers. Cross-subsidized advertising would be relatively easy to detect, as expenditures are clearly identifiable. Billing functions, on the other hand, are readily subsidized and offer significant advantages to the LEC.[443]

5.6 Summary

BOCs emphasize the various merits to the consumer and nation they could provide if allowed to enter the information services market. For example, they assert that they can contribute to the growth and

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decree and previous representations it has made to the Justice Department. It reported to the Justice Department that the price US West charges Teleconnect for listings to be published is 515 percent more for consumer listings and 433 percent more for business listings than the price at which those listings are available for marketing purposes. *Telecommunications Reports*, March 5, 1990, 4.

[442] *Huber Report*, 9.8.

[443] Ibid. Teleconnect USA Directory Co., a unit owned by the Teleconnect subsidiary of Telecom USA, Inc., asked the Justice Department's Antitrust Division to inquire into US West's discriminatory behavior related to directory publishing for violations of the MFJ's non-discrimination provisions.

Teleconnect pointed out that "the ad charges [of US West's directory subsidiary] are included in ... [its] bill for local telephone service. Teleconnect has requested that US West provide similar B&C [billing and collection] services for its yellow pages advertisers." US West refused even though it " 'is willing to provide billing services for other information vendors who are not in the directory field and do not directly compete with US West.' " *Telecommunications Reports*, March 5, 1990, 3.

diversification of the information industry by offering more services in health, education, public safety, and so on that "enhance the quality of life for all Americans."[444] They also say that small and minority-owned businesses that cannot secure computers and software on their own would benefit from a public gateway provided by BOCs, since these businesses can reach their users and also get billing services through BOCs' gateway services. Finally, BOCs assert that the U.S. is not the world's leader in the strategic information service business and that their participation in the industry would "strengthen America's competitive position in the global marketplace."[445]

As for the possibility of BOCs' anticompetitive behavior toward their competitors – such as discriminating against competitors' access to the local exchange and Customer Proprietary Network Information and engaging in cross-subsidization – BOCs assert that the rules made by the FCC – that BOCs provide Comparatively Efficient Interconnection and Open Network Architecture as dictated in the CI.III order as well as numerous rigorous accounting rules – are effective enough to ensure fair competition among them. BOCs insist that, fundamentally, they do not have incentives to discriminate against other information service providers since they need to attract many ISPs to succeed as gateway service providers.

On the other hand, opponents to BOCs' entry into the information services market are concerned that BOCs' might employ discriminatory tactics – such as providing poorer quality or slower installation and maintenance of competing ISPs' lines – that would harm competing ISPs in network access. The ANPA coalition, for example, indicated that BOCs could make unbundled access to the local exchange services by other ISPs difficult through their network design and that BOC-affiliated enhanced service personnel are free to access CPNI. It also points out that the timing of advance notice concerning network changes is limited to the

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[444] Hearings before the Subcommittee on Telecommunications and Finance, Serial No. 101-92, 70.

[445] Ibid., 64.

make/buy point, which is inadequate to give competitors the same planning advantage as the BOCs' affiliates, and that the FCC rules are not effective enough to prevent BOCs' discrimination.

Concerned about BOCs engaging in cross-subsidization, CompuServe Inc. says that BOCs have the incentive and the ability to cross-subsidize and discriminate. It also states that online videotex service continues to be entirely dependent on BOCs' bottleneck local exchange networks. CompuServe further asserts that the rapid development and steady growth of U.S. information services industry is due to the MFJ restriction that inhibits BOCs from engaging in anticompetitive activities.

BOCs assert that along with the MFJ's information services restriction, the MFJ's manufacturing restriction also should be lifted so that they can provide inexpensive terminals for those who cannot buy PCs. BOCs claim that the terminal is the key in development of videotex services and the information services market, and also that the gateway service should entail the wide availability of an inexpensive, simple, easy-to-use terminal. However, the case of Minitel in France shows that free distribution of terminals does not necessarily lead to the general increase in usage of the services.

In the market of information services (here, videotex and audiotex services) in the U.S., in February 1991 NYNEX said it would discontinue its Info-Look (gateway service), which provides "a variety of information services such as news, weather, sports and stock information." The MFJ information services restriction "has had the effect of limiting NYNEX's ability to control the quality and format of the data provided." One analyst said that "other [BOCs] would soon follow Nynex in closing their gateway services." For example, Southwestern Bell Corporation decided not to provide videotex gateway service last year. And "neither the Pacific Telesis Group nor Ameritech

has plans to start similar services." On the other hand, US West is expanding its information services.[446]

Industry analysts say it is too early to tell where the market is being defined, particularly in the videotex arena. "Karen Nielsen, a videotex analyst for Link Resources, . . . agrees that the market [of videotex service] is too immature to produce profits yet." She says, " 'The [BOCs] are still investigating the marketplace and their subscriber base is very small.' "[447]

Concerning the role of electronic yellow pages (EYP) for BOCs, John R. Gunter (vice-president, Information Services Market Plans, BellSouth Corporation) maintains that if BOCs could provide information services, EYP would be a good service for users to learn how to use electronic information. He also said that EYP could play a role as an anchor store in the electronic shopping mall (information gateway), which would attract users and increase the usage of electronic information overall. Over the provision of EYP by BOCs, independent directory publishers (which are currently offering Talking Yellow Pages, a kind of EYP), and newspaper companies (which are now providing Talking Newspapers), are all competing for updated subscriber listings, advertising revenue, and users.

In Japan, NTT's videotex service, CAPTAIN, has not grown as expected since its beginning in 1984. The cost of the terminal is said to be too high in comparison to the value of the information received through the service. Japan now faces an issue that has its parallel in the U.S. Although NTT already provides information services such as CAPTAIN Town Pages, Japan's version of EYP and other services, it recently received a complaint and was queried about NTT's provision of content for a certain kind of electronic directory. Customer usage of Japan's Town Pages, a

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[446] "Nynex Suspends Its Computer Data Service," *Tele/Scope Fax Alert* 4, no. 277 (February 12, 1991).

[447] Vinton, Robert S., "Can the RHCs Get a Slice of the Enhanced Services Pie?" *Telephony* 218, no. 16 (April 16, 1990), 106.

classified directory, is relatively low compared with that of its counterpart in the United States, the Yellow Pages; also, the editorial improvement of paper directories is still under way. NTT still has a substantial monopoly in the directory market even though it disclosed the Town Pages' subscriber listings to competing publishers in January 1990. NTT has not yet experienced severe competition in the market since the scale of business and the number of private directory publishers are still small.

APPENDIX A

Acronyms

ADAPSO	Computer Software and Services Industry Association
ANPA	American Newspaper Publishers Association
AP	Associated Press
AT&T	American Telephone and Telegraph
B-to-B YP	Business-to-Business Yellow Pages
BOCs	Bell Operating Companies (also called Regional Holding Companies [RHCs])
CAPTAIN	Character and Pattern Telephone Access Information Network System (Japan)
CATV	Cable television
CB	Citizens Band
CCIA	Computer and Communications Industry Association
CD	compact disc
CEI	Comparatively Efficient Interconnection
CI.I-III	FCC Computer Inquiries I-III (1971, 1980, 1985)
CPNI	Customer Proprietary Network Information
CPUC	California Public Utility Commission
DF centers	Information Provider-owned centers
DGT	(now France Telecom)
DJNR	Dow Jones News Retrieval
DOJ	Department of Justice (U.S.)
EB	electronic banking
EC' 92	European Community 1992
EWP	Electronic White Pages
EYP	Electronic Yellow Pages
Famicons	Family Computers (Japan)
FCC	Federal Communications Commission (U.S.)
FT	France Telecom
GTE	General Telephone and Electric Corporation
IC	integrated circuit
inter-LATA	between Local Access and Transport Areas
IP	Information Provider
ISPs	Information Service Providers
ITT-WD	ITT-World Directories
LECs	Local Exchange Carriers
MFJ, 1982	Modification of Final Judgment, 1982
MPT	Ministry of Posts and Telecommunications
MT	magnetic tape
NDD	Nippon Directories Development
NTT	Nippon Telegraph and Telephone Corporation

ODA	French yellow pages
ONA	Open Network Architecture
PC	personal computer
PUCs	Public Utility Commissions
SIC codes	Standard Industry Classification codes
SWB	Southwestern Bell Corporation
TB Law	Telecommunications Business Law (Japan)
TNPs	Talking Newspapers
TTGI	Telephone Transaction Generated Information
TYP	Talking Yellow Pages
USTA	U.S. Telephone Association
VAPs	Value-Added Network Service Providers (Japan)
VCA	ViewData Corporation of America (subsidiary of Knight-Ridder Newspaper Corporation)
VIA	Videotex Industry Association
YPPA	Yellow Pages Publishers Association

Source Notes for the Fold-Out Chart:

Key Issues and Assertions by Stakeholders Concerning BOCs' Entry into Information Services

[1] U.S. Congress, House Committee on Energy and Commerce, *Modified Final Judgment, Part 2: Hearings before the Subcommittee on Telecommunications and Finance*, 101st Cong., 1st Sess., 1989.

[2] Bell regional holding companies, 1990 filing requesting U.S. District Judge Greene to lift the MFJ's information regional services restriction on the RHCs.

[3] *RHCs, 1990 filing.*

[4] *Modified Final Judgment.*

[5] *Modified Final Judgment.*

[6] *Modified Final Judgment.*

[7] *Modified Final Judgment.*

[8] *Modified Final Judgment.*

[9] *Modified Final Judgment.*

[10] *Modified Final Judgment.*

[11] John R. Gunter, vice-president, Information Services and Market Plans, BellSouth Corp.

[12] *RHCs, 1990 filing.*

[13] Brief of the American Newspaper Publishers Association, National Black Media Coalition, and the National Newspaper Association, dated October 17, 1990, in opposition to the motions to remove the information services line of business restriction imposed on the Bell Operating Companies by the Modification of Final Judgment, *USA v. AT&T Co.*, 552 F. Supp. 131 (D.D.C. 1982), *aff'd mem. sub nom., Maryland v. USA*, 460 U.S. 1001 (1983), *modified, USA v. Western Electric Co.*, 673 F. Supp. 525 (D.D.C. 1987), 714 F. Supp. 1 (D.D.C. 1988), (hereinafter, *ANPA coalition*).

[14] *ANPA coalition.*

[15] *ANPA coalition.*

[16] *USA v. AT&T Co.*, 552 F. Supp. 131 (D.D.C. 1982), *aff'd mem. sub nom., Maryland v. USA*, 460 U.S. 1001 (1983), *mo* *Western Electric Co.*, 673 F. Supp. 525 (D.D.C. 1987), 714 F. Supp. 1 (D.D.C. 1' *rt and rev'd in part*, 900 F. 2d 283 (D.C. Cir. 1990).

[17] *ANPA coalition.*

[18] *ANPA coalition.*

[19] *ANPA coalition.*

[20] *ANPA coalition.*

[21] *USA v. Western Electric.*

[22] *USA v. Western Electric.*

[23] *USA v. Western Electric.*

[24] *USA v. Western Electric.*

[25] *USA v. Western Electric.*

[26] *USA v. Western Electric.*

[27] *USA v. Western Electric.*

[28] *People of California v. FCC*, 905 F.2d 1217 (9th Cir. 1990).

[29] *People of California v. FCC.*

[30] *People of California v. FCC.*

[31] *People of California v. FCC.*

[32] *People of California v. FCC.*

[33] *People of California v. FCC.*

[34] Montgomery, William P. et al., *The Telecommunications Infrastructure in Perspective,* prepared for the Consumer Federation of America and the International Communications Association (Boston: Economics and Technology, Inc., 1990).