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ABSTRACT

Suggesting that the transition from a paper system of news distribution to an electronic one moves the press from a relatively regulation-free environment to one encumbered with broadcast and common carrier regulation, this paper reviews communication law as it applies to the electronic publisher and considers whether this form of publishing might bring the newspaper within the regulatory scope of the Federal Communications Commission (FCC). The paper begins by providing a rationale for the concern about regulating electronic news. Next, it discusses the developing technology of teletext (one-way transmission) and videotext (two-way transmission) systems, defining and categorizing the systems and their associated terms. The paper then shifts to the legal questions associated with electronic publishing, offering information on electronic information systems as they relate to three types of media (broadcasting, telephone, and cable). Following a discussion of the constitutional aspects of electronic information systems, particularly the First Amendment rights of broadcasters and cable operators, the paper lists some of the future problems inherent in electronic publishing, developing the conclusion that these problems appear to presage more rather than less government regulation. (RL)

Videotex and Teletext: Regulation of the Electronic Publisher?

By

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Introduction:

By the mid 1980s, citizens called for jury duty will not need to go to the courtroom, but rather will be able to serve in their own homes by watching the trial on television. This piece of star gazing comes not from Future Shock's radical wing, but from the Chief Justice of the Florida Supreme Court.[1] Chief Justice Arthur England suggests that the medium through which jurors would keep in touch with each other throughout their "jury room" deliberations is two-way television.

Musings about this kind of media future may be blue sky for the judiciary, but for the fourth estate, the electronic future is now. In-house systems for writing and typesetting are in use throughout the industry. That last fateful step, transmitting the publication from in-house directly to the subscriber's house instead of sending the paperboy out on his rounds, is presently being tested at several locations around the world.

For the press, the change would be a dramatic step. It is true that newsprint has become expensive. Perhaps on these grounds, the temptation to abandon it may be appealing. But there are other features more related to tradition than economics which caution against a change to electronic publishing.

From a First Amendment standpoint, hindsight may ultimately reveal to us that when newsprint was tossed out, the baby went out with the bathwater. The transition from a paper distribution system to an electronic one moves the press from a relatively regulation-free environment to one encumbered with broadcast and common carrier oversight. This paper is concerned with that oversight. Its objective is to review communication law as it applies to the electronic publisher and consider whether this form of publishing might bring the newspaper within the regulatory scope of the Federal Communications Commission (FCC).

Ironically, in electronic publishing, there is a promise of a media diversity which First Amendment theorists have long pined for and declining newspaper numbers have increasingly denied. But clouding that promise is a tradition of government inter-

vention in the administration of the broadcast spectrum, something the print medium is not accustomed to, nor cares to acquiese to. Yet once over that electronic barrier, a great variety of bonuses beckon, all promising either new profit opportunities or at least cost reduction in old ones. And a lot of that promise revolves around two-way television.

There is, argues one sociologist, a movement in the industrialized world towards individualization.[2] For the moment, the individual is surrounded by media which are geared to the mass, the forms and content of these media oriented towards collective behavior patterns and not necessarily toward those of the individual. Yet publishers stand now on the threshhold of a development which could lead from mass communication to individual communication. It might be called "on-demand communication" and two-way television holds the key to it.

The rationale goes something like this. If a newspaper can be written and edited on a screen, why slow down the updating process by putting it on a printing press and then onto paper, when it could be transmitted directly to a TV set at home? If people in a newsroom can become accustomed to reading and writing on a TV screen, why shouldn't home readers comfortably acquire the same custom, particularly if the screen was paper thin, hand-held and portable?[3] And if that same TV monitor had a two-way function, then a content supply unique to that particular subscriber could be programmed for, a unique customer "profile".[4] Newspapers already do this with their "zoning" practises whereby their markets are divided into various demographic categories which might appeal to smaller advertisers who do not want to reach the newspaper's total circulation at the newspaper's highest advertising rate. Hence, the suburban editions of a citywide newspaper. Specialized magazines do the same sort of thing, appealing to certain interest groups. But their specialization still is only a smaller version of "mass" and it is one-way. There is no direct user response. The two-way age offers the target of the smallest mass, catering to an audience of one. And it has the potential to respond to the changing whims of that audience of one.

But to reach that audience of one, the publisher must transmit over the air or through a cable or telephone line and with each of these media the Communications Act[5] empowers the FCC to take a regulatory interest. Two examples may help to illustrate what regulation can mean when a publisher seizes the bit and moves from newsprint to the electronic medium. First, consider the following scenario.[6]

The Miami Telepress is a teletext newspaper licensed to use a portion of the electromagnetic spectrum. It has run an editorial critical of Frank Lee Graft, a state representative who is up for re-election. Graft demands an opportunity to reply to the editorial. The newspaper editor reminds Graft that a Mr. Tornillo lost the same right-of-reply argument with the Miami Herald[7] back in 1974. He suggests that Graft try to buy an advertisement. Graft's lawyer calls later that day threatening to file a complaint with the FCC since his client is being denied his rights under the FCC's Political Editorials Rule.[8] He reminds the Telepress editor that these rules were affirmed by the Supreme Court in Red Lion v. FCC[9] and that his client's argument with the news service is a broadcasting and not a newspaper matter, so Miami Herald v. Tornillo is not relevant. The editor mumbles some First Amendments codewords as he buzzes for the Telepress lawyer.

Next contemplate what Richard Nixon might have been able to do in the Watergate era with the Washington Post if it ran only as a teletext news service out of the Post owned television station WTOP-TV. The former President's comment that "the Post is going to have damnable problems out of this one. They have a television station...and they are going to have to get it renewed",[10] takes an even more ominous tone than it did when it applied just to a newspaper.

It has been observed that there is presently a transformation going on in our media, a "merging" of print, broadcast and common carrier communications services.[11] The characteristics of these media are seen to look more and more alike. Indeed, it is suggested that the gathering and processing of information and getting it to a certain point down the channel of distribution will increasingly be the same regardless of how the final product is delivered to the home.[12] CBS Chairman William

S. Paley has recently noted that distinctions between the two media are blurring and that the newspaper and broadcast industries now have a lot more in common than they might heretofore have realized.[13] Paley noted that the time had now come when cooperation rather than competition in promoting mutual interests, i.e. the removal of governmental intrusion in the editorial process, should be undertaken by the different media.

The FCC chairman at the time, Charles Ferris, addressed the same point when he asked what free speech rights might attach to "newspapers" which are delivered over telephone lines or TV signals.[14] Should they parallel those of common carriers with rights of access and entry, but without content review? Or should they be treated as broadcasters, with fairness obligations? Perhaps an even more radical idea for a Chairman of a regulatory agency, should they be governed by the absence of regulation, like print? Ferris saw the first task as deciding "what...that creature (is) that uses the telephone lines and television set to provide the type of information that traditionally is obtained from the newspapers?"[15] Given that Ferris, at the time of this speech, was the Chairman of the regulatory agency central to the interest of this paper, his question will be accorded considerable weight here and the answer to it will be the goal towards which this paper strives.

The Technology:

There is a confusing array of acronyms in the field each referring to a particular teletext or videotex system in a particular country. Thus we have Prestel, Ceefax and Oracle in England; Antiope and Titan in France; CIBS, Captains, VRS, CCIS and Hi-Ovis in Japan, and Telidon and Vista in Canada.[16] In the US, we have Knight-Ridder Newspapers/AT&T's Viewtron in Coral Gables, Florida;[17] the Departments of Agriculture and Commerce's Green Thumb service to farmers in Kentucky;[18] Telecomputing Corporation of America's The Source out of McLean, Virginia;[19] Micro TV's Info-Text in Philadelphia;[20] The Columbus (Ohio) Dispatch's CompuServe;[21] the OCLC/Banc One Channel 2000,[22] and the system with perhaps the highest profile of them all, Warner Amex's Qube,[23] also in Columbus, Ohio and slated for Cincinatti, Pitts-

burgh and Houston. One worldwide count in 1979 noted 40 such systems under trial.[24] Trade magazines banner even more new tests and services coming on line every month. Over the past few years, some generic terms have bubbled to the surface of this frothy mix. Initially, they were viewdata and teletext and latterly videotex. Current usage would suggest videotex and teletext as the generic terms describing the two technologies this paper is concerned with. The former provides a two-way capability and the latter, one-way. However, technical innovation in teletext is providing an interactive capacity which suggests that the collective term videotex might suffice for both technologies. This paper will refer to videotex and teletext as two separate technologies to fall into line with industry usage in the US. Traditionally, teletext has been thought of as a set of information frames which are transmitted in a regular cycle and which the home TV set "grabs" out of the air and displays on the screen. Videotex, on the other hand, has been seen as a system where the user can interactively identify and call up individual frames from a database without having to wait through a transmission cycle as in teletext. Thomas offers the following general definition for the two systems:

> Systems for the widespread dissemination of textual and graphic information by wholly electronic means for display on low cost terminals (often suitably equipped television receivers) under the selective control of the recipient, using control procedures easily understood by untrained users.[25]

Tyler has offered a four category system which throws more light on potential applications of the technology.[26]

1) Narrow-band interactive teletext, often known as "wired teletext", using the telephone system or similar networks to distribute data under the user's control at relatively slow speeds. The British Post Office's viewdata system Prestel is of this type.

2) Broadcast teletext, in which textual and graphic information is inserted into the redundant intervals in broadcast television signals creating a stream of television frames of information from which the user can make his or her selection. Ceefax and Oracle in England and Info-Text in the US are examples of this broadcast teletext. This is inherently a one-way service, where the user can select the information frame but does not have a general two-way communication capability at his diaposal. Transmission is typically at the rate of around four frames per second.

3) Wide-band broadcast or cabled teletext, employing the same principles as

the broadcast teletext but achieving much greater capacity by allocating all (or much) of a complete video channel to transmitting the alphanumeric or graphic characters. The amount of spectrum bandwidth taken up by a color television signal on a cable system could accomodate up to 25,000 frames of information if a teletext system were substituted in its place.

4) Wideband two-way teletext, in principle would be the ideal. Here transmission in both directions is achieved on a sophisticated switched cable television network. Qube is such a system.

Hybrids of these are also possible and future systems should see a lot of these. For example, one hybrid might involve telephone transmission of the user's information requests, the responses to which are then supplied by cable. Another hybrid could be a regularly cycled set of frames as in the one-way systems, but, in response to telephoned user requests, unique frames could be inserted into the continuing cycled set.[27] In a cable channel with greater frame transmission speeds and capacity, this hybrid could resemble a more complete interactive service. There is a wide range of possible applications of these systems.[28] They include utility meter reading and fire and burglary monitoring, opinion polling, interactive games, electronic mail and newspaper delivery, information retrieval services, business transactions and classified advertising. As the entrepreneurs who market these systems say, the possibilities are limited only by the imaginations of the people involved. The range of services possible holds out the idea that home-based employment might ultimately be based on the systems.

How these systems will get into the home and who will provide particular services on them has become a contentious issue in the US as these same entrepreneurs scramble to protect their individual interests in a situation where it is feared that decisions being made now may fix the way this particular electronic technology develops from now on.

What does the user get with these new technologies? At the moment there is a very primitive form of graphics available which can incorporate up to seven colors and two or three sizes of text. The way the two technologies, videotex and teletext, have developed in England is a useful model for distinguishing between the two. Ceefax is an over-the-air teletext system. A typical television signal does not

use up all the bandwidth allocated to it on the electromagnetic spectrum, so extra signals can be inserted into the transmission. The teletext signal is inserted into what is referred to as the blanking interval. To receive the signal, a television set must have a teletext decoder either built in or added on. These are presently estimated to cost from $200 to $300.[29] They are expensive. Decoder manufacturers claim that with mass production this figure will come down. But there are now some 30,000[30] teletext-equipped TV sets in use in England and there are no indications that the decoder price is coming down.

When it is received, the signal can either occupy the entire screen or be inserted into the image of another program already on the screen. Thus closed captioning services could be provided by teletext,[31] or news flashes could be seen as they are published, yet not interrupt an ongoing program. Alternately, a user can "search" what teletext has to offer by calling up a menu page with a hand-held switching pad. From that menu, the user selects a page or frame number for material of interest. The teletext decoder, in effect, "grabs" the requested frame off-air from the cycle being transmitted as it did with the menu page, and presents it on screen. A third choice is to merely read all the teletext frames at the pace at which they are transmitted, provided, of course, that the transmission is paced slowly enough.

Videotex or Prestel, as the system is called in England, is an over-the-wire system, in this case by telephone. The same decoder as used in teletext is required to get the image onto the TV screen. A user calls up a menu frame using the same hand-held pad as for teletext, identifies the information desired and enters those frame numbers into the system using the keys on the hand pad. In the case of videotex, an interactive facility is available. The user is able to search for desired information through a database which is organized in a logical tree structure. The interactive facility is a limited one. There is, for example, no sophisticated character string search capability. Frames are presented on request. There is, however, more control than that of teletext where the user must wait through a

transmission cycle for a desired frame.[32]

Teletext, with its continuous transmission cycle, seems suited to brief, constantly updated information. Videotex is suited to less ephemeral material as well as updated information. Since frames can be supplied on demand there is no limit to the size of the videotex data base.[33] The picture, in terms of transmission media, is relatively clear in Britain. Teletext is over-the-air and Prestel is over-the telephone wire. The picture in the US is more clouded. The British experience is clearer for three reasons. First, the British technology was developed there in the early 1970s and the range of services available now reflect early design assumptions.[34] Second, in the case of Prestel particularly, one of the primary purposes seen for the medium was that of increasing the utilization of the telephone system.[35] Prestel is, therefore, confined to the telephone network in England, which is a narrow band system with low speed/quality transmission rates. Third, the administrative agencies which developed the two technologies, the British Post Office for Prestel and the British Broadcasting Corporation for Ceefax, are state and quasi-state agencies respectively. The regulatory environment is perhaps more generous when the regulator is able to promote its own technological developments than might be the case in the US where the regulator is more in the business of balancing competing commercial interests in the market place against some statutory standard.

In the US, there is a third medium which has access to the home alongside broadcasting and the telephone. That medium is cable.[36] It is not as pervasive in Britain. In the US, cable complicates the videotex/teletext picture both from a technological and a regulatory point of view.

How will teletext and videotex get into the home in the US? That question has been posed several times in the past and the answers tend to reflect either the times in which they were asked (when the technology was simpler) or where the British model was seen as transposing directly into the US environment. Thus, there is little recognition of the evolution of the technology. The arbitrary way one particular medium, be it cable, telephone or broadcasting, was recommended as the best medium for

the US seems to have taken little notice of the fact that test operations were already successfully establishing operations on other media. Grundfest and Baer,[37] for example, saw a problem with the frame by frame billing transaction cost actually exceeding the value of the information being marketed. Their suggested solution was to go with an established billing system and they argue for a negotiated contract between an information service firm and a telephone carrier to use that carrier's billing system. Failing agreement, they suggested firms might petition the FCC or the states to set reasonable terms and rates for access to the billing system. All this is predicated on use of the telephone as the means of access into the home. But there are systems in the US which operate successfully with their own billing systems. The Source, although accessed by telephone, bills at a flat time rate for service.[38] Qube, with its constant monitoring of customer cable service use (it scans all users every six seconds) would appear to have the software capability already in place for a frame by frame charge system. Zerbinos[39] speculated that cable would be the "safest place" to put teletext from a regulatory point of view, since the FCC did not impose as much content regulation on cable as it did on broadcasting. But the fairness doctrine, for example, applies to cable casting just as it does to broadcasting.[40] It could be argued that the common carriage status of the telephone might be a "safer" transmission medium for videotex. Perhaps the blanking interval of a TV broadcast transmission will come to be regarded as a common carriage facility and the broadcaster may be able to lease it to, say, a newspaper.[41]

In fact, just as it has been suggested that information service providers might petition the FCC to obtain access to a telephone carrier's billing system, so might an electronic publisher move to petition the FCC for access to a broadcaster's blanking interval. If ideas of spectrum scarcity[42] as a basis for regulation still survive, then the blanking interval could be a candidate for regulatory development if the broadcasters do not move to develop it themselves.

In the final analysis, speculation about the "safest" place for electronic publish-

ing may really just be academic indulgence. First Amendment considerations do not loom as large, at least with broadcasters, as do economic considerations.[43] The wide mix of media being experimented with as electronic publishing outlets, with little mention in the trade papers of their First Amendment "safety" aspects, would tend to confirm this observation.[44] Commercial interest will dictate the most appropriate medium for any particular publisher. First Amendment arguments will be called on later to sanctify that channel selection.

In defense of these earlier recommendations, the dynamic nature of media technology development means that they were bound to date. The FCC's Second Computer Inquiry,[45] two court cases, FCC v. Midwest Video[46] and NARUC v. FCC,[47] and recent Communications Act rewrite attempts in the Congress[48] have either set new directions, or reflect new constraints, in the media environment in the US. Variations on, and judicial appeals against, these developments in the future will just as surely date this present study's efforts.

An interesting sideline to this speculation about the medium of choice for electronic publishing is the maneuvering for "spheres of influence" which is apparent between cable and telephone interests. Temple[49] has noted the existence of the so-called "Telco Agreement," arranged with the cooperation of the House Communications Subcommittee, between the National Cable Television Association (NCTA) and the United States Independent Telephone Association (USITA). In this agreement, the two organizations agreed not to compete with each other in their respective traditional areas of business, i.e. plain old telephone service for USITA members and the retransmission of television programs for NCTA members. Subject to respecting each other's defined sphere of interest, the telephone carriers and the cable television systems reserved the right to provide any "telecommunications service"[50] in any location either by using their own distribution facilities or by leasing transmission facilities from one another. For "telecommunications service", read electronic publishing. The National Cable Television Association President echoed this agreement when he spoke of an anticipated three levels of service. He noted plain old telephone service which

the telephone companies would provide, cable television service which the NCTA members would provide, and a middle ground of information services (examples of which he gave as information retrieval, burglar alarms, meter reading and teletext) where the two media would compete.[51] It should be noted that there is one large component of the telephone industry, AT&T, which is not a member of USITA and is not a party to the Telco Agreement. Measured across a variety of indices, USITA member companies make up only 18% of the US telephone business.[52] AT&T makes up the rest. But if AT&T is not with the Telco Agreement in the flesh, it is at least there in spirit. Charles A. Brown, Chairman of AT&T, said as much in hearings before the House Subcommittee on Communications in 1979. When asked by the Subcommittee's counsel whether AT&T might object to a prohibition on it being allowed to retransmit over-the-air broadcast signals, Mr. Brown said that that was the status quo and that AT&T was not concerned "as long as it did not prevent us from getting into other things in connection with home information service, retrieval of data...."[53] AT&T's interest in home information and data retrieval services has sent all manner of interest groups to Washington praying for relief. The government's response to these supplications is a confused, yet apparently quite radical, redefining of the way communication regulation is being thought about in the nation's capital. And because there is this element of the radical about it, the issue is far from resolved. A look of some of these ideas for each of the three media, broadcasting, telephone and cable, might be a useful approach in clarifying this.

Broadcasting:

There is an irony with broadcasting. A general impression might be gleaned from trade papers that electronic publishing is going to break out in the US on broadcast teletext. KSL-TV's service in Salt Lake City is set to go as a full scale operation now. Micro-TV's Philadelphia based service is busy soliciting advertising support. There is the appearance of activity in the area. Yet, below the surface, there is little movement. Technical progress over standards has slowed to a snail's pace--with backers of the British and Canadian systems at loggerheads with CBS over

that network's attempt at an end run with the French Antiope system it backs.[54] CBS has filed a petition with the FCC promoting a modified Antiope system as the industry standard. Responses have been filed from the supporters of the other systems.[55] The petitions process will be an extended one and there may not be a set of teletext standards announced for some time.

If the question of content regulation is one that makes print journalists "shudder at the thought,"[56] then it is unlikely that newspapers will look en masse to teletext for their initiation into electronic publishing. Representative Lionel Van Deerlin, a promoter of several recent attempts to rewrite the Communications Act, has noted that since "Broadcasters must comply with the Fairness Doctrine and equal time provisions for political candidates," teletext, since it is broadcast, would have to comply with those standards too.[57] Given this constraint, it is likely that only broadcasters would find teletext appealing, since that is all they know. A review of the organizations testing teletext does suggest that the medium is confined primarily to broadcasters.

A further reason for the apparent lack of any movement on the regulatory front for broadcasting, and more particularly for teletext, can be found amongst the broadcasters themselves. Recent attempts at rewrites of the Communications Act failed, to some extent, because of broadcaster opposition to the idea of a more competitive broadcast environment.[58] In fact, so effective was this broadcaster opposition that after H.R. 3333 failed, the next bill on the subject, H.R. 6121, contained only common carriage provisions. Broadcasting matters were excluded from the bill which concentrated instead on the presumably more popular deregulation of the telephone industry. Broadcasters apparently preferred the devil they knew, the Communications Act of 1934, to a deregulated broadcast system.

The Telephone System:

The telephone system as a medium for electronic publishing is interesting for two reasons: first because of the scale of the companies behind it and second because of their interest in becoming publishers as well as their traditional role as com-

mon carriers with facilities for lease.[59] Thus GTE has purchased US rights to the British Prestel system,[60] AT&T is involved in the Coral Gable Viewtron test with Knight-Ridder[61] and has several tests of its own planned or in operation around the country.[62]

A clue to what is at stake is suggested by the possibility of AT&T extending its yellow pages into an electronic classified advertising service. This would be an unregulated data processing service, with a lot of revenue potential. At stake is 4.6 billion dollars, the amount that classified advertising made up the total newspaper advertising revenues in 1979.[63] If electronically distributed, classifieds could be continuously updated, and a user would need only to call up those which were of personal interest. The vast memory banks available in computing today might also allow for more depth of information in each classified advertisement. Floor plans of advertised houses, for example, might be available in the realty section.[64]

Two of the tests in which AT&T is involved, one already underway in Coral Gables, Florida and another proposed for 1981 in Austin, Texas[65] might appear to the consumer to offer similar services. For example, both offer telephone directories and classified advertising from grocery and department stores. From a regulatory point of view, however, there are some critical differences. In the Coral Gables Viewtron experiment, AT&T is providing the telephone lines and terminal equipment for the users. Knight-Ridder is providing the computer, the software and the database.[66] In the proposed trial in Austin, the telephone company plans to go further than the common carrier function. It will provide the computer, the database, the telephone lines and the terminal at the user's end, the so-called customer premises equipment (CPE).[67] In the Viewtron trial, the telephone company appears simply to be fulfilling its traditional role as a common carrier. But in the Austin trial, the common carrier is becoming an electronic publisher. In doing so, it appears to be flying in the face of both the FCC's latest regulatory orders in the Second Computer Inquiry, and the philosophy behind current regulatory thinking

in the Congress. In the process, AT&T seems to be confirming all the worst fears that the press has about its own future in electronic publishing.[68] The differences between these two trials make a useful vehicle through which the current state of telephone regulation might be considered.

In its Second Computer Inquiry, the FCC radically redefined the way it looks at telephone service. A decade previously, the Commission had tried to face up to the impact that computer technology and its market applications was having on communications common carrier services and regulation. The phenomenon of data transmission and processing was playing havoc with old ideas based on voice transmission. In its First Computer Inquiry,[69] the FCC held hearings, in part, to try and clarify the situation. The outcome was a dual definitional scheme which distinguished between regulated communication services and unregulated data processing services. In the case of hybrids between the two, the definitional scheme was designed to consider the orientation of the service.[70] To prevent the possibility that common carrier services might favor their own data processing activities when providing unregulated data processing services, a policy of "maximum separation" was initiated whereby a carrier had to furnish data processing services through a separate corporate entity.[71] That Inquiry came from an era when central computers operated in conjunction with "unintelligent" terminals on customer premises. Technological development in data processing quickly passed the First Computer Inquiry by. Advances in microprocessor and large-scale integrated circuitry have since allowed the construction of mini and micro computers. Customer terminals are now more intelligent. Distributed processing has become the norm, where computers and terminals perform both data processing and communication control within a network and at a customer's premises.[72] In the Second Computer Inquiry, various new definitional schemes were discussed to try to specify more precisely what data processing was and what it was not, and how hybrids between the two might be accomodated.[73] The Commission finally came down with a distinction between a basic transmission service and an enhanced transmission service. The former would be regulated in the

traditional common carrier sense, the latter unregulated. The basic service was limited to the offering of transmission capacity between two or more points suitable for a user's transmission needs and subject only to technical parameters of fidelity or distortion criteria. An enhanced service then became any offering which is more than the basic service.[74] Typically, this might be where computer applications are used to act on the content or code of a subscriber's information. In an enhanced service, the "content of the information need not be changed and may simply involve subscriber interaction with stored information".[75] That is what a videotex service is. Thus, videotex is an enhanced service and therefore not regulated. Not regulated, that is, in terms of tariff regulation and having to get the FCC's prior approval for new services.

Is this good news for electronic publishers? Perhaps. But the Commission qualifies itself by reminding its audience that it has not given up jurisdiction over enhanced services, merely that it has chosen not to initiate a comprehensive regulatory scheme for the service. Rather, it notes that if occasional problems concerning enhanced services do arise which require the Commission to invoke its subject matter jurisdiction and intervene, the FCC would prefer to handle the resolution of those problems on an individual basis.[76]

Since carriers have traditionally "bundled" terminal equipment along with transmission facilities in providing a service, the Commission next addressed the possibility of whether "bundling" could limit a user's freedom of choice in putting together a preferred service and equipment package. Trends in technology, the Commission observed,[77] enable terminal equipment to function as an enhancement to basic common carrier service, yet bundling has forced users to go with packages of transmission and equipment services which the carrier offers even though these may not meet the needs of the customer. Concluding that bundling inhibits competition, the Commission moved in the Second Computer Inquiry to deregulate customer premises equipment. The analogy in present homes is that the rental charge built in for telephone receivers will now have to be itemized separately. This

will, in effect, serve notice on customers that they may now purchase outright from other vendors the telephone equipment to meet their needs. And to further complicate matters, the Commission, using a standard which identified dominant carriers as those "telephone companies which have sufficient market power to engage in effective anti-competitive activity on a national scale and which possess sufficient resources to enter the competitive market through a separate subsidiary,"[78] ruled that AT&T would have to market terminal equipment and enhanced services through a subsidiary.[79]

For the proposed Austin trial, the separate subsidiary rule suggests that AT&T (in this case Southwestern Bell) should only be providing the transmission facilities for the test. The computer, the customer premises equipment and the database should be provided through a subsidiary or by another vendor.[80] Whether the FCC has the authority even to allow AT&T into the enhanced services market, contrary to the 1956 Consent Decree,[81] which barred AT&T from offering services such as data processing and information retrieval, is hotly contested by the Department of Justice.[82] There is obviously still much to be resolved in the area.

Interest in the Consent Decree has also been manifest in the Congress where concern for the welfare of the Justice Department's anti-trust activities against AT&T in effect sidelined the fortunes of H.R. 6121, a rewrite of the Communications Act, at least for the current session.[83] As approved, the bill would allow AT&T to compete in areas not regulated by the FCC, thereby modifying the 1956 Consent Decree. The bill also contains an American Newspaper Publishers Association (ANPA) sponsored amendment which prohibits "dominant carriers" (read AT&T) from offering data retrieval services either by the parent company or its subsidiaries, for the types of information now being provided by newspapers, periodicals, radio and television.[84] The scope of the amendment is wide. This amendment, too, suggests that AT&T's Austin trial is out of order.

But of course, like H.R. 3333, the bill that went before it, this is all still bill drafting rather than statutory law. How seriously congressional sentiment should

be regarded on electronic publishing is not clear. The two bills failed for reasons other than mass media services amendments. Apart from the sweeping ban on the provision of mass media services, however, there is a lot that is similar between H.R. 6121 and the Second Computer Inquiry. Lionel Van Deerlin, the house bill's sponsor, conceded as much in his commendation of the FCC's work when the Commission's Inquiry report was released.[85]

Cable Television:

It is in the context of cable television that most regulatory interest in two-way television has been seen. Unfortunately, the two-way facility has taken a back seat to arguments about the validity of the FCC's rules regarding access to cable.[86] In 1972, the FCC required new cable television systems to include two-way technical capacity.[87] That requirement (capacity for return communication on at least a non-voice basis) was later modified to apply to new cable systems with more than 3,500 subscribers, and later still to older systems if they were rebuilding to comply with other FCC technical standards. Along with this two-way rule were others requiring mandatory access to cable facilities for the public, educators and local government, the provision of studios and production equipment for the use of these access groups, and a system capacity of 20 channels. In Midwest Video II, these rules were struck down by the Supreme Court as exceeding the statutory authority allowed the FCC. The court found that the rules required cable system operators to behave as common carriers.[88] If common carrier obligations cannot be imposed on broadcaster, then the court held they surely cannot be imposed on cable systems, arguing that the variant technology of cable did not lessen the journalistic discretion which the Congress has consistently allowed broadcasters.[89] The court did concede that less stringent access rules might get a more favorable hearing. But, despite an FCC plea that the access, capacity and facilities rules be considered separately from each other, the court concluded that the technical capacity rules were set up to promote the access rules and thus set them aside as a group, without considering the merits of each.[90] So the two-way rules failed without much of

a hearing.

The two-way rules had not had much of a hearing from the FCC either. When the Commission first promoted the two-way idea, it conceded that there may not be a demand for the service and that is why it never required more than the technical, rather than operational, capacity for two-way services. Ironically, it would now appear that two-way and access services are the sine qua non for obtaining cable TV franchises.[91]

One final appellate level case has bearing on the plight of two-way television, and that is NARUC II.[92] It is included in this discussion for three reasons. First it highlights a judicial finding that individual cable company services are severable despite the FCC's tendency to consider all services together, and further that common carriage regulation can be applied to any of those severed services.[93] Second, it highlights a predicament for the FCC in how far the agency can extend its interest into intrastate jurisdictions,[94] and third, it demonstrates that there is still a great deal of confusion about what two-way service actually is. The 1972 Cable Report called for capacity for return communications at least of a non-voice quality. In terms of videotex, for example, this would refer to a key punched request from a user for certain information to be displayed on the user's TV screen. It could also be read to imply that the signal from the computer to the user's screen is video. It does not clarify whether the two signals (i.e., to the computer and back to the user) are integrally tied as they presumably would be with videotex where the non-video return signal is calling up a video response from a head-end computer. In fact, whether a static image, which is all the videotex technology can offer at the moment, would constitute "video" is not really clear. It may be a non-video signal. Signals which are not tied together integrally, or which are both non-video are not specifically accounted for.[95]

To further add to the confusion, one of the FCC's pre-requisites for common carrier status is that the system be such that customers transmit intelligence of

their own choosing.[96] That is, the customer provides the information to be transmitted, the carrier provides only the transmission facilities. In videotex, only the return mode (from customer to computer) would be of the customer's choosing. The line from the computer back to the customer would consist of the computer response to that intelligence. On the basis of the holding in NARUC II, the court would find videotex to be a common carrier activity.[97] The other pre-requisite to common carrier status, holding out a service indifferently to all potential users,[98] would also be met by videotex.

A cable system offering a videotex service might therefore, under the terms of NARUC II, be a common carrier, an appellation the FCC refuses to give cable systems. The court in NARUC II concluded "that most, if not all, of the uses to which the two-way non-video capability is likely to be put fall within the term "carrier" as used in 47 U.S.C. 152(b)."[99] Notwithstanding all of the foregoing, the court found that cable operators providing two-way intrastate non-video communications were acting outside the Commission's jurisdiction because of the express provision of section 2(b),[100] which prohibits FCC involvement in intrastate matters. The Austin trial being proposed by AT&T would seem to meet that provision. It is two-way and intrastate.

Constitutional Aspects:

The First Amendment rights of broadcasters and cable operators do not seem to loom large in the FCC's regulation of electronic publication. For example, using Red Lion's finding of a public speech right over that of broadcaster autonomy, the Commission has enthusiastically sought to extend that public right of access to cable television at the expense of the cable operator's speech rights. The Commission's brief[101] in Midwest Video II tersely dismissed the cable operator's First Amendment claims by saying that, a) cable systems retransmit broadcast signals (and are thereby "reasonably ancillary" to the FCC's interest in the regulation of broadcasting),[102] that b) Midwest Video I authorized rules designed to achieve the Commission's program diversity "objectives" and that, c) First Amend-

ment goals are promoted by access rules, citing Red Lion language about an uninhibited marketplace of ideas and monopolization of that market. In order to impose access rules the FCC tried to use the retransmission of broadcast signals as a lever to gain authority over cablecasting and two-way services even though these have little to do with over-the-air transmission services which are the foundation of FCC broadcast authority.

Not everyone is quite so pessimistic about the government's intentions. From the affirmative First Amendment ideas of Emerson,[103] which achieved their ultimate expression in Red Lion, Silber[104] sees a trend has developed over the years towards what he calls "broadcaster autonomy" in decisions such as CBS v. DNC,[105] where a broadcaster's refusal to carry an advertisement was upheld. Silber was bemused, though, by FCC v. Pacifica through which the FCC used George Carlin's "seven dirty words" to sustain its proscription of indecency. The rationale in Pacifica for denying broadcasters the same First Amendment protection as for print was because broadcasting had "established a uniquely pervasive presence in the lives of all Americans,"[106] and that broadcasting is uniquely accessible to children, even those too young to read.[107]

This "captive audience" idea seems to be a variant of the "power of broadcasting" idea which is usually listed along with the ideas of "public ownership of the airwaves" and broadcast frequencies being "scarce resources," as the three most common rationales for distinguishing broadcasting from print for regulatory purposes. And, where broadcasting goes, interest groups with memories extending back to Red Lion, are trying to make sure cable goes.

With cable television, the idea which seems to get most of the attention is the scarcity theory. Public ownership as a basis for regulation works only for broadcast retransmission channels on cable through the "reasonably ancillary" doctrine. Access and two-way channels are more likely to be privately owned. The power idea, with its fear of the unknown, appears to be more theologically than empirically based, and lingers in the background rather than center stage for cable.[108]

Scarcity, the idea that a limited number of channels requires government assurances that a multiplicity of opinions will be telecast, should not, it has been argued, apply to cable TV because of its many channels. A structural or technological solution[109] to regulation is now considered possible compared to the behavioral, or content regulation of the pre-cable era. In fact, such is the optimism that diversity's utopia has now arrived, that petitions have been filed by the National Telecommunications and Information Administration (NTIA) with the FCC to release cable systems from requirements under the fairness doctrine.[110] Needless to say, there are still pessimists who see in cable television more of the same. Barron, for example, notes that technological solutions have so far not rendered his preferred social engineering unnecessary, pointing out that so far most cable systems merely offer more choices among the networks.[111]

A further problem for the scarcity theory as a basis for regulation is that newspapers can be shown to be much more scarce than broadcast and cable outlets, yet newspaper content is not regulated. In Home Box Office v. FCC, the court, in reference to Miami Herald v. Tornillo, said that "(S)carcity which is the result solely of economic conditions is apparently insufficient to justify even limited government intrusion into the First Amendment rights of the conventional press... and there is nothing in the record before us to suggest a constitutional distinction between cable television and newspapers on this point."[112]

The lack of sound theory supporting broadcast and cable content regulation would suggest that it is time to put broadcast and cable alongside the print model in First Amendment treatment. But tradition does not lie down and die that easily.

Conclusion:

Nirvana is not yet here for First Amendment theorists in broadcasting and cable television. And it may be a long time coming. Despite the carrots of deregulation, and movement towards the print model, which the FCC Chairman has offered broadcasters and cable operators in his speeches in return for more competition,[113] some of the problems ahead suggest more rather than less regulation. Consider

the following:

1) Electronic publication may threaten broadcast news and thereby the FCC's policy of localism. Busterna, for example, has found that a ten point increase in cable penetration in a market is associated with a 7% decline in broadcast news expenditures.[114] 2) Euphoria over what appears to be the end of the scarcity theory as a basis for regulation takes little account of the fact that nearly all cable cities are one-company operations. Who the operator is may become an important determinant of who gets on the cable. If Times-Mirror owns the cable company, what are the prospects for other newspapers of getting on that cable? 3) In the 105 channel operations that are being announced today, what might be the consequences of electronic newspapers being buried in a swamp of competing media? In the British Prestel system, for example, newspapers can be lost amongst a lot of other information services on just one channel. Is it conceivable that the ANPA may find itself in the ironic situation of appealing to the government for relief, and arguing for another round of Failing Newspaper legislation? H.R. 6121, the Communications Act rewrite attempt, with its sweeping restriction on who can electronically publish mass media services, while confining AT&T to directory services, may find it has applied a "Meiklejohnian" approach to defining mass media services, i.e. those "services designed to inform the electorate on issues of public concern".[115] If all else is left to dominant carriers, electronic newspapers may find that what the audience wants more of is not information "of public concern" but directory information, box scores and the like. 4) Kaplan[116] has noted that what appeared to be interviews (of "public concern"?) on Warner Amex's two-way Qube system, turn out to be marketing exercises where the interviewees have actually bought time for the interviews. Kaplan asks whether this type of programming should be regulated, and if so, by whom? 5) The price of decoders is high enough that the possibility of taking advantage of the end of the scarcity theory will be denied many people. In the electronic publication era, might the advent of this wonderful diversity of voices actually disenfranchise much of the audience?

6) An issue not considered in this study, that of privacy, becomes very relevant with the electronic surveillance necessary to keep track of a subscriber's media use, either for billing purposes, to rebuild user profiles, or for marketing purposes. 7) Questions concerning who the publisher is in libel cases, and in the reuse of material, have yet to be addressed.

In spite of the excitement surrounding trials and speculation in electronic publishing, the consensus appears to be that it will be at least ten years before the nation goes two-way. And when it does, price and privacy questions might make us all pine for the good old days when we had to retrieve a sodden but low priced newspaper out of the tree in the front yard, and when the only privacy question of concern was whether we had remembered to put a bathrobe on before going out.

FOOTNOTES

1. AUSTIN AMERICAN-STATESMAN, Auguest 27, 1980, at F8.

2. Silberman, "Communication Systems and Future Behavior Patterns," 24 INT. SOC. SCI. J. 337, 340 (1977).

3. Rosenfield, "A Complete Electronic Newspaper?" 35 ANTIOCH REV. 171, 177 (1977). In-house electronic writing and editing systems for broadcast newsrooms are now coming onto the market. One such system, marketed by Station Business Systems, a subsidiary of Control Data Corporation, has been installed at WQAD TV, Moline, Illinois and at KSL-TV, Salt Lake City, Utah. Letter from George V. Pupala, Director of Sales, Station Business Systems (October 6, 1980).

4. Research Seminar by Dr. Wayne Danielson, "Micro-computers and Content Analysis," to Journalism Department, University of Texas at Austin (October 15, 1980). Dr. Danielson noted how a user might put into a computer system a series of descriptors of personal subject interest to set up an individual news "profile." This profile might interrogate other data sets, such as those of an electronic publisher, for news and information of interest to that user.

5. Communications Act of 1934, 47 U.S.C. § 151 et seq.

6. Suggested by Zerbinos, "Teletext/Videotex and Freedom of the Press," (1980) (unpublished paper presented to the Association for Education in Journalism Annual Convention, Boston, Mass.)(hereinafter Zerbinos) at 14.

7. Miami Herald Pub. Co. v. Tornillo, 418 U.S. 241 (1974).

8. 47 C.F.R. §§ 73.1930 (1978).

9. Red Lion Broadcasting Co. v. FCC, 395 U.S. 367 (1969). But see Powe, "Or Of

the (Broadcast) Press," 55 TEXAS L. REV. 39 (1976) for a commentary on the ups and downs of the fortunes of the consumer speech right enunciated in Red Lion.

10. Taped statement of Richard Nixon to H.R. Haldeman and John Dean (September 15, 1972), quoted in SENATE SELECT COMM. ON PRESIDENTIAL CAMPAIGN ACTIVITIES, FINAL REPORT, S. Rep. No. 981, 93rd Cong., 2d Sess. 149 (1974).

11. Address by Charles Ferris, "New Technology and the Merging Media...A Time for Imagination," Annual Meeting of Audit Bureau of Circulation, New Orleans, La., (November 7, 1979) (hereinafter Ferris, Merging Media). Ferris was the Chairman of the FCC at that time.

12. Watts, "Major Issues of the 1980's: First Amendment Implications of New Communications Technology." (1980) (unpublished paper presented to the Association for Education in Journalism Annual Convention, Boston, Mass.) (hereinafter Watts). Watts is the Staff Counsel, American Newspaper Publishers Association (ANPA).

13. BROADCASTING, June 16, 1980, at 114.

14. Ferris, Merging Media, supra, note 11.

15. "Up to Speed at the Ferris FCC," interview with FCC Chairman Ferris, BROADCASTING, April 14, 1980, at 68.

16. Prestel and the other systems noted are described in Rimmer, "Viewdata - Interactive Television, with Particular Emphasis on the British Post Office's Prestel," (1979) (unpublished paper presented to the Association for Education in Journalism Annual Convention, Houston, Texas) (hereinafter Rimmer) at 5.

17. "Viewtron Test Started by Knight-Ridder," EDITOR AND PUBLISHER, July 26, 1980, at 18; "AT&T/Knight-Ridder Teletext Trial Underway," 12 E&ITV, August, 1980, at 13; Kelly, "All the News That's Fit to Compute," WASHINGTON JOURNALISM REVIEW, April, 1980, 13 (herinafter Kelly, All the News That's Fit to Compute) at 13.

18. Ayers, "The Greening of Kentucky." TELEPHONY, April 14, 1980, 28, at 28.

19. Ashe, "The Limitless Possibilities of Delivering Information Electronically," ANPE BULLETIN, April, 1980, 3 (hereinafter Ashe) at 3; Sigel, "Videotext in the U.S.," in VIDEOTEXT: THE COMING REVOLUTION IN HOME/OFFICE INFORMATION RETRIEVAL 87 (E. Sigel ed. 1980) (hereinafter Sigel) at 107.

20. Sigel, at 92, supra, at 19.

21. "AP, Newspapers and Computer Firm Join in Test of Telephone Delivery," BROADCASTING, July 7, 1980, at 49.

22. "OCLC Is Doing What?" LITA NEWSLETTER (Library and Information Technology Association), Summer, 1980, at 5; "Bank to Try Out Two-Way Phone System in Columbus," BROADCASTING, February 4, 1980, at 50.

23. Rimmer, supra note 16, at 8; "Special Report, Warner Cable's Qube: Exploring the Outer Reaches of Two-Way T.V.," BROADCASTING, July 31, 1978, at 27.

24. Tyler, "New Media in the Information Economy: Prospects and Problems for View-

data and Electronic Publishing," (hereinafter Tyler) at 266, in PROCEEDINGS OF THE SIXTH ANNUAL TELECOMMUNICATIONS POLICY RESEARCH CONFERENCE 265 (H. Dordick ed. 1979) (herinafter Dordick).

25. Thomas, "Current Developments and Trends in Videotex and Teletext," (1979) (unpublished paper presented to the IIC Annual Conference London, England) at 10.

26. Tyler at 266, supra, note 24.

27. Bonneville Broadcasting Corporation reports that it is developing a Touch-Tone Teletext which allows for a degree of interaction between the user and the teletext central computer. BROADCASTING, April 21, 1980, at 78.

28. Rimmer at 4, supra, note 16, suggests some 70 possible uses.

29. BROADCASTING, August 4, 1980, 62, at 63, suggests a set-top decoder price of $200, less if built into the set; Tyler, supra, note 24, at 270, prices the decoder at $300; 85 NEW SCIENTIST, February 14, 1980, at 483, also prices it at $300.

30. BROADCASTING, December 17, 1979, at 38. Sales of decoder equipped sets were reported running at 3,000 a month in England.

31. CBS is proposing this type of service with the teletext system it is developing. Since several different teletext technologies are available, the industry in the US is currently enmeshed in a debate over technical standards. The Electronic Industries Association (EIA) subcommittee on teletext which is charged with selecting one of the three competing systems and submitting a set of standards to the FCC has seen CBS drop out from the committee in order for the network to present its own standards petition to the FCC. A majority of the committee favors the British Ceefax system, CBS favors the French ANTIOPE system. BROADCASTING, August 11, 1980, at 26.

32. This waiting requirement tends to limit the number of frames in a transmission cycle. In the case of Ceefax, 100 frames are transmitted in 25 seconds. A larger frame memory capacity in the in-set decoder may mean that waiting time would not be a problem in the future. CBS is predicting an in-set memory capacity of up to 25 frames when its system starts up in 1985/86. BROADCASTING, August 6, 1980, 62, at 63.

33. The Prestel database is reported at 150,000 frames of information, with regional computer centers holding data in five cities. Prestel's service, which has been commercially available since 1978 now reaches half of Britain's telephone subscribers. Despite these seemingly impressive figures, there are only 2,400 Prestel equipped sets in use in Britain and many of these are test or donated sets. 8 INTERMEDIA, May, 1980, 13, at 4. Set supply has been a problem, see for example, Rimmer, supra, note 16, at 38, but there are also more fundamental marketing problems, such as whether a demand for the service actually exists. See Rimmer at 32; Tyler, supra, note 24, at 276.

34. Fedida, "The Viewdata Computer: How Information is Retrieved at the Command of the Subscriber," 84 WIRELESS WORLD 44, April, 1978.

35. Grundfest & Baer, "Regulatory Barriers to Home Information Services," (hereinafter Grundfest & Baer) at 325, in Dordick, supra, note 24.

36. The Arbitron media survey service puts cable penetration in the US at almost

19% of TV households, 14,261,200 cable households out of 75,793,500 TV households. 14 US markets have penetration rates of 60% or more, with Palm Springs, California highest at 99% penetration. BROADCASTING, February 18, 1980, at 98. An industry spokesman predicts a penetration rate for cable of 40-50% of TV households by the mid-1980s, "We're All In This Together Now," interview with Thomas E. Wheeler, BROADCASTING 32, March 3, 1980 (hereinafter Wheeler) at 32. Wheeler is the President, National Cable Television Association (NCTA).

37. Grundfest & Baer, supra, note 35, at 326.

38. Ashe, supra, note 19.

39. Zerbinos, supra, note 6.

40. 47 C.F.R. §§ 76.205, 209 (1973). The FCC has applied the fairness doctrine and equal opportunities in political broadcasting to cable TV in the same manner that the doctrines are applied to broadcasting. For an extended discussion of the fairness doctrine and cable TV, see Barrow, "The Fairness Doctrine: A Double Standard for Electronic and Print Media," 26 HASTINGS L.J. 659, 691 (1975). Watts, supra note 12, at 8, notes that the American Newspaper Publishers Association (ANPA) successfully petitioned for and obtained a decision from the FCC that its fairness rules would not extend to a videotex service delivered over a cable system. That is perhaps a more liberal interpretation of the holding in that petition than the FCC intended. In re the Matter of Amendment of Part 74, Subpart K, of the Commission's Rules and Regulations Relative to Community Antenna Television Systems; And Inquiry into the Development of Communications Technology and Services to Formulate Regulatory Policy and Rule-making and/or Legislative Proposals, Report and Order, 23 F.C.C. 2d 825, 829 (1970), when speaking of the fairness doctrine and equal opportunities rules as applied to cable, the FCC, at 820, said, "(W)e did not intend to apply these requirements to the distribution of printed newspapers to their subscribers by way of cable.... (W)e have no intention of regulating the print medium when it is distributed in facsimile by cable, but we do hold that the publication of a newspaper by a party does not put it in a different position from other persons when it sponsors or arranges for the presentation of a CATV origination which does not constitute the distribution of its newspaper." The idea of a facsimile newspaper involved the installation of a printer in the home which would output (usually at the publisher's control rather than the user's) an exact copy of that day's newspaper. This is a far cry from the electronic newspaper which this study addresses, where the news product is tailored to a user specified "profile" (supra, note 4) of subject interest, which will be offered on a TV screen and which may or may not be offered as a printed copy, let alone as an exact facsimile of that newspaper. A tailored news-profile would probably not "constitute the distribution of...(a) newspaper," but rather would be a "CATV origination," at 830. For a discussion of early facsimile trials see Koehler, "Facsimile Newspapers: Foolishness or Foresight?" 46 JOURNALISM QUARTERLY 29 (1969).

41. See for example, Watts, supra, note 12, at 6.

42. Scarcity and other rationales for broadcast regulation are considered at notes 107-111, and accompanying text infra.

43. Barnouw, THE GOLDEN WEB 18-22 (1968), notes the lack of interest in news and public affairs by the early broadcasters; Smith, Davis and Shelby, "Broadcast Executives' Attitudes Towards Fairness, Equal Time, Ascertainment, and Communications Act Revision," (1980)(unpublished paper presented to the Association for Education in Journalism Annual Convention, Boston, Mass.) at 15, found in a study of broad-

cast executives in the context of a Communications Act rewrite, that the deregulation fought for by the industry on First Amendment grounds was not expected to result in increased news and public affairs programming. In fact, a majority of the respondents (66%) agreed that some stations would actually become less diverse if, for example, the fairness requirements were eliminated; Lucoff, "The Rise and Fall of the Third Rewrite," 30 JOURNAL OF COMMUNICATION 47 (1980) (hereinafter Lucoff, Third Rewrite) notes at 52 that, "(P)ocketbook issues outweigh freedom of expression considerations."

44. An extreme example of a multi-media mix in one system is that of the security system offered by Warner Amex's Qube. The system is connected by cable to sensors in the home. If the cable or central computer is inoperative, a backup system cuts the alarm system onto the telephone system. "Warner Amex Plan Security System for Business, Home," WALL STREET JOURNAL, March 12, 1980, at 10. (Less than a week later, Warner Amex announced that more than 700 families had ordered the security system connection. BROADCASTING, March 17, 1980, at 87). As an add-on to the telephone backup noted here, it is conceivable that an over-the-air "backup to the backup" could be offered. Although this example involves a security system and not an electronic publisher, it is also conceivable that an electronic publisher might involve more than one medium in its service with a cable down line delivering the information service and the telephone used to deliver the user's return requests.

45. In re the Matter of Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), Report and Order, 77 F.C.C. 2d 384, 1980 (hereinafter Second Computer Inquiry).

46. FCC v. Midwest Video Corporation, 99 S.Ct. 1435 (1979)(Midwest Video II).

47. National Association of Regulatory Utility Commissioners v. FCC, 533 F.2d 601 (D.C. Cir. 1976)(hereinafter NARUC II).

48. For example, H.R. 3333, 96th Cong., 1st Sess. (1979), "Communications Act of 1979," introduced March 29, 1979, lapsed July 13, 1979; H.R. 6121, 96th Cong., 1st Sess. (1979), "Telecommunications Act of 1979," introduced December 13, 1979; S. 2827, 96th Cong., 1st Sess. (1980), "Communications Act Amendments of 1980," introduced June 12, 1980.

49. Temple, "Technology Meets Bureaucracy: The FCC's Policy for Two-Way Television," 31 FED. COM. L.J. 806 (1979), at 458 (hereinafter FCC's Two-Way Policy).

50. Telecommunication service is defined as "the offering for hire of a telecommunications capability for the transmission of information selected by the customer from one location to another by means of electromagnetic transmission with or without benefit of any physical transmission medium, including all instrumentalities, facilities, apparatus and services...." Principles of Agreement (between USITA and NCTA), June 19, 1980, at 1. I am indebted to Robert H. Glaser, Assistant Vice President, Public Affairs, Southwestern Bell, for a copy of this agreement and for more general information about AT&T's interest in electronic publishing. Telephone conversation September 18, 1980, and correspondence October 8, 1980 (hereinafter Glaser).

51. Wheeler, NCTA, supra, note 36, at 34.

52. THE COMMUNICATIONS ACT OF 1979: HEARINGS ON H.R. 3333 BEFORE THE SUBCOMM. ON COMMUNICATIONS OF THE COMM. ON INTERSTATE AND FOREIGN COMMERCE, 96th Cong. 1st Sess. 1270 (1979) (statement of Weldon W. Case, May 3, 1979). Case is the Treasurer of United States Independent Telephone Association (USITA). USITA repre-

sents over 1500 (95%) of the non-Bell independent telephone companies in the US and 97% of that industry in terms of gross revenues. Its largest member is GTE.

53. THE COMMUNICATIONS ACT OF 1979: HEARING ON H.R. 3333 BEFORE THE SUBCOMM. ON COMMUNICATIONS OF THE COMM. ON INTERSTATE AND FOREIGN COMMERCE, 96th Cong. 1st Sess. 497 (1979) (statement of Charles A. Brown, April 26th, 1979). Brown is the Chairman of AT&T. Since Brown's testimony there has been no shift in AT&T's position on this point of intrusion on traditional CATV activity. Glaser, supra, note 50. See also "Promises, Promises." BROADCASTING, March 16, 1981, at 56.

54. Supra, note 31. Broad, "Upstart Television: Postponing a Threat," 210 SCIENCE 611, November, 1980, at 614, suggests that CBS, in opting out of the EIA standards setting process for teletext, was actually working a delay tactic against the new medium to protect its broadcast advertising revenues.

55. "CBS Going Live With Teletext in LA Test," BROADCASTING, Nov 17, 1980, 21.

56. Wollert, "Technology and Journalism: What Will the Future Hold?" 60 FORUM 9, 10 (1980) (hereinafter Wollert, Technology and Journalism).

57. Kelly, All the News That's Fit to Compute, supra, note 17, at 18.

58. See generally, Lucoff, Third Rewrite, supra, note 43.

59. Supra, notes 50 and 53 and accompanying text.

60. Sargent, "The First Amendment: Is it Being Threatened By Computer Information Systems?" ANPE BULLETIN, November, 1979 (hereinafter Sargent, First Amendment Threatened By Computer) at 3.

61. Supra, note 17.

62. Ris, "Electronic Newspapers Could Alter Shape of the $4.6 Billion Classified Ad Market," WALL STREET JOURNAL, August 11, 1980, at 13 (hereinafter $4.6 Billion Classified Ad). This article notes that AT&T offered a videotex service in Albany, New York, for six months early in 1980. Information made available consisted of white and yellow pages, minus the display ads, from about 40 telephone directories in the Albany, Schenectady, Troy areas plus the directory for Manhattan. AT&T is proposing a test service in Austin, Texas in mid-1981. Hight, "Ma Bell Chooses Austin for Experiment," AUSTIN AMERICAN-STATESMAN, September 11, 1980, at B3 (hereinafter Ma Bell Chooses Austin). The extreme example of telephone directory automation comes from France where the state-owned telephone utility is proposing to supply all its customers with small black and white TV sets connected to computer-maintained telephone directories. The advantages of a constantly updated facility plus a cost saving in printing and disributing paper-based directories is considered sufficient to justify the scheme. "The Curious Assemble for Viewdata-80," BROADCASTING, April 7, 1980, at 34.

63. $4.6 Billion Classified Ad, supra, note 62.

64. This service is presently available in the AT&T/Knight-Ridder Viewtron test in Coral Gables, Florida, supra, note 17.

65. Viewtron Test Started By Knight-Ridder, supra, note 17; Ma Bell Chooses Austin, supra, note 62.

66. Viewtron Test Started By Knight-Ridder, supra, note 17.

67. Ma Bell Chooses Austin, supra, note 62. This "Electronic Information Service", as it is called by the Bell spokesman, will involve 680 residences and 80 businesses and the trial will run for some 14 months.

68. See for example, Sargent, First Amendment Threatened by Computer, supra, note 60, at 4.

69. Regulatory & Policy Problems Presented by the Interdependence of Computer & Communications Services & Facilities, 28 F.C.C. 2d 291 (1970)(hereinafter Tentative Decision); 28 F.C.C. 2d 267 (1971)(hereinafter Final Decision).

70. 47 C.F.R. § 64.702 (1971).

71. The separate data processing entity was required to have separate books of accounts, separate officers and operating personnel, and separate equipment and facilities devoted exclusivaly to data processing services. The carrier was further prohibited from promoting the separate data processing service. Second Computer Inquiry, supra, note 45, 391 n.2.

72. Second Computer Inquiry, supra, note 45, paragraph 20 at 391; see also re the Matter of Amendment of Section 64.702 of the Commission's Rules and Regulations (Computer Inquiry), Supplemental Notice of Inquiry and Enlargement of Proposed Rulemaking, 64 F.C.C. 2d 771 (1977), paragraph 2.

73. For example, a three class system of voice, basic non-voice (BNV), and enhanced non-voice (ENV) proposed in the Tentative Decision, supra, note 69, paragraphs 8-58, was then discarded because of uncertainty about the nature of the service and whether the maximum subsidiary separation rule applies, supra, note 71. The enhanced non-voice category apparently could include both regulated communications service and unregulated data processing. This required further development of the definitions of what each service was. But the gray line between the two would not go away and the Commission conceded that attempts to draw regulatory boundaries on the basis of precise technical distinctions would be rendered obsolete by technical development.

74. The basic transmission service is defined as "one that is limited to the common carrier offering of transmission capacity for the movement of information. In offering this capacity a communication path is provided for the analog or digital transmission of voice, data, video etc. information. Different types of basic service are offered by carriers depending on a) the bandwidth desired, b) the analog and/or digital capabilities of the transmission medium, c) the fidelity, distortion, or other conditioning parameters of the communication channel to achieve a specified transmission quality, and d) the amount of transmission delay acceptable to the user." Second Computer Inquiry, supra, note 45, 419, paragraph 93. An enhanced service is "any offering over the telecommunications network which is more that a basic transmission service....In these services additional, different or restructured information may be provided the subscriber through various processing applications performed on the transmitted information, or other actions can be taken by either the vendor or the subscriber, based on the content of the information transmitted through editing, formatting, etc." Second Computer Inquiry, supra, note 45, 421, paragraph 97.

75. Id. 421, paragraph 97.

76. Id. 433, n.44.

77. Id. 442, paragraph 149.

78. Id. 469, paragraph 222; "Inherent in the resale structure is the fact that the separate corporate entity may not construct, own, or operate its own transmission facilities," Id. 474, paragraph 229.

79. The Final Decision of the Second Computer Inquiry included GTE as a dominant carrier which should offer enhanced services through a separate subsidiary. In hearings to reconsider, (adopted Oct. 28, 1980), the FCC excluded "GTE from the separate subsidiary requirement, leaving AT&T as the only dominant carrier subject to the subsidiary requirement." Second Computer Inquiry, 48 RR 2d 1107 (1980), at 1122, para. 66 (hereinafter Reconsideration Order). The deadline for structural separation of enhanced services is March 1, 1982. Re Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), Memorandum Opinion and Order, 79 F.C.C. 2d 953 (1980) 956 at para. 4. AT&T is reorganising itself to set up this separated subsidiary, BROADCASTING, Aug. 25 (1980), at 11.

80. It would appear that AT&T will continue its plans for the proposed Austin trial in spite of the rules ordered in the Second Computer Inquiry, for the following reasons: a) There is a vacuum concerning the impact of the Inquiry pending resolution of challenges to the rules. 33 petitions to intervene have been filed at the US Court of Appeals (D.C. Cir.), by parties claiming that the FCC does not have the authority to deregulate under the existing statute, that it misinterpreted the 1956 Consent Decree, and/or that it exceeded it authority by reserving the right to regulate data processing and data communications, if necessary. REPORT together with DISSENTING VIEWS ON THE TELECOMMUNICATIONS ACT OF 1980 (H.R. 6121) BY THE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE, 96th Cong. 2d Sess. August 25, 1980, at 46 (hereinafter Interstate and Foreign Commerce Committee Report). b) The failure of the Communications Act rewrites in the Congress has set up another vacuum in authority. See, for example, note 83 infra and accompanying text. c) There is an apparent loophole in the rules and legislation concerning the FCC's jurisdiction in intrastate v. interstate regulation (see infra notes 92-100, and accompanying text on NARUC II). A local service may not trigger the rules. d) The Austin plan is a restricted trial, not a service offering. AT&T and Southwestern Bell's trial plans in Austin have been further complicated by suits to deny the telephone company the right to run the trial. The suits were initiated by the Texas Daily Newspaper Association (TDNA) and are presently being heard before the Public Utility Commission of Texas, Re Docket No. 3617 Complaint of Texas Daily Newspaper Association Concerning Expansion Of Operating Authority of Southwestern Bell Telephone Company Beyond the Rendition of Telecommunication Service, (1981), with appeals in the District Court of Travis County, Texas 147 Judicial District, No. 318, 373 Southwestern Bell Telephone Company v. Public Utility Commission of Texas (1981); and in the Court of Civil Appeals, 3rd Supreme Judicial District, Austin, Texas, Cause No. 13,471 Southwestern Bell Telephone Company v. Public Utility Commission of Texas (1981). e) AT&T's reorganised subsidiary (supra, note 79) will not be ready to operate for some time, yet the company feels the need to begin to acquire experience with information services now. Glaser, supra, note 50. AT&T interprets the Reconsideration Order as allowing development of new enhanced services prior to the establishment of the separate subsidiary provided that the costs incurred are reported to the FCC. In Re PUC Docket No. 3617, Southwestern Bell's Reply to Exceptions of Texas Daily Newspaper Association, Feb. 13, (1981), at p. 3.

81. United States v. Western Electric Co., Inc. et al., (D.N.J. 1956) paragraph 63. 246 (hereinafter 1956 Consent Decree) along with related FCC rules, bars AT&T from offering consumers new services that are commercially and technically inci-

dental to communications, such as data processing and information services. All AT&T was permitted to do was provide communications services and facilities, the charges for which are subject to regulation.

82. Second Computer Inquiry, supra, note 45, 491, paragraph 2.2.

83. ADVERSE REPORT together with ADDITIONAL AND SUPPLEMENTAL VIEWS ON TELECOMMUNICATIONS ACT OF 1980 (H.R. 6121) BY THE COMMITTEE ON THE JUDICIARY, 96th Cong, 2d Sess. October 8, 1980. The Committee recommended that the bill not pass. After H.R. 6121 was reported favorably by the Committee on Interstate and Foreign Commerce on August 25, 1980, the Speaker ordered the bill referred to the Committee on the Judiciary to permit consideration of anti-trust issues addressed by the bill. At 1.

84. H.R. 6121, 96th Cong., 2d Sess., § 218. (a)(2)(A)(9i). "The term 'mass media' includes, but is not limited to, television and radio broadcasting, pay television, and printed or electronic publications (including newspapers, periodicals, and any service or product like or similar to all or part of the function of newspaper or periodical or any portion of a newspaper or periodical). Such term does not include telephone number or address listings and directory assistance (limited to telephone number, address, and business category), weather or time information, or data retrieval services which do not provide any information which is like or similar to information provided by newspapers, periodicals, or television and radio broadcasting. The Commission shall have authority to determine in disputed cases whether any proposed service or product is a mass media service or product." Id. § 218. (e) (3).

85. "Key Players React," TELEPHONY, April 21, 1980, 1t 19.

86. See generally, FCC's Two-Way Policy, supra, note 49.

87. In re Amendment of Part 74, Subpart K, of the Commission's Rules and Regulations Relative to Community Antenna Television Systems, Cable Television Report and Order, 36 F.C.C. 2d 143 (1972)(hereinafter 1972 Cable Report). The FCC did not require two-way services, only that the technical capacity to provide these services be allowed for when and if they became economically feasible. This technical/operational dichotomy has become an issue in franchise renewal proceedings in Austin, Texas, where the present franchise holder is offering "two-way capability" throughout a plant rebuild. An independent consultant has pointed out in his report that "capability" may not be the same thing as "operational or activated capacity." REPORT ON THE EVALUATION OF CAPITAL CABLE COMPANY FOR THE CITY OF AUSTIN, TEXAS, August 20, 1980. (Report prepared by Cable Television Information Center, Washington, D.C.) at VII-2 (hereinafter Capital Cable Report).

88. Midwest Video II, supra, note 46, at 1441.

89. Id. at 1445.

90. Id. at 1445, n. 18.

91. "Cox Cable Gets Omaha Franchise; Two-Way Proposal is Winning Factor," BROADCASTING, August 25, 1980, at 110; "Warner Amex Lands Big One: Pittsburgh (with its Qube system)," BROADCASTING, February 4, 1980, at 37; the NCTA is now surveying and publicising the local cable programming activities of its members, "NCTA Report on Local Cable Programming," BROADCASTING, September 1, 1980, at 41.

92. Supra, note 47.

93. NARUC II, supra, note 47, at 613.

94. Id. at 616.

95. One writer suggests that although the court in NARUC II explicitly discussed only jurisdiction over point-to-point transmissions, its conclusions in the case would probably extend to other more complex examples. "FCC Lacks Jurisdiction Over Two-Way Non-Video Intrastate Communications on Cable Television Leased Access Channels - National Association of Regulatory Utility Commissioners v. FCC (D.C. Cir. February 10, 1976)(No. 75-1975)," Recent Cases, 89 HARV. L. REV. 1257, 1259 (1976).

96. NARUC II, supra, note 47, at 609.

97. Id.

98. Id. at 608.

99. Id. at 610. At 608, n. 27, the court noted that the FCC had, in another context, argued successfully that it is the character of the communication, rather than the character of the facilities, which determines the exclusion under 47 U.S.C. § 152(b), General Telephone Co. v. FCC, 134 U.S. App.D.C. 116, 127-28 n. 19, 413 F.2d 390, 401-2 n. 19, cert. denied. 396 U.S. 888 (1969). The character of the communication is also the standard under which the Second Computer Inquiry defined the categories of basic and enhanced transmission services. This intermixing of agency ideas about the character of the communication, and legislative language concerning the facilities used, will probably continue to confuse the situation for some time until either new legislation is passed or the Second Computer Inquiry clears its numerous challenges.

100. 47 U.S.C. § 152 (b), 2(b), states that "nothing in this chapter shall be construed to apply or to give the Commission jurisdiction with respect to (1) charges, classifications, practises, services, facilities, or regulations for or in connection with intrastate communication service by wire or radio or any carrier...." The FCC's reaction to NARUC II was that the point decided in the case was a narrow one which would not foreclose the Commission's authority to require that cable systems construct with the capacity to provide two-way services. The FCC suggested that some of the important services which two-way capacity makes possible, e.g. operational monitoring of the system's functioning, are related to the distribution of broadcast programming and thus meet the "reasonably ancillary standards", (infra, note 102) necessary for FCC jurisdiction. In re Amendment of Part 76 of the Commission's Rules and Regulations Concerning the Cable Television Channel Capacity and Access Channel Requirements of Section 76.251, Report and Order, 59 F.C.C. 2d 294 (1976) at 310.

101. Quoted in Midwest Video Corp. v. FCC, 571 F.2d 1025, 1053 (1978).

102. The "'reasonably ancillary' to the FCC's responsibility for broadcasting" standard which was devised as a means to regulate cable television, received the Supreme Court's blessing in U.S. v. Southwestern Cable, 392 U.S. 157 (1968), and in U.S. v. Midwest Video Corp., 406 U.S. 649 (1972)(hereinafter Midwest Video I).

103. See generally, Emerson, THE SYSTEM OF FREEDOM OF EXPRESSION, (1970).

104. Silber, BROADCAST REGULATION AND THE FIRST AMENDMENT (Journalism Monographs No. 70, November, 1980).

105. Columbia Broadcasting System, Inc. v. Democratic National Committee, 412 U.S. 94 (1973).

106. FCC v. Pacifica Foundation, 438 U.S. 726, 748 (1978).

107. Id. at 749.

108. See generally, Powe, Background paper, The Edward R. Murrow Symposium on Press Responsibilities and Broadcast Freedoms, 17 (n.d., 1979?); Bazelon, "The First Amendment and 'New Media' - New Directions in Regulating Telecommunications," 31 FED. COMM.L.J. 201 (1979) (hereinafter Bazelon). Bazelon's thesis is that the new media have nullified the scarcity theory as a basis for regulation, but that an "impact" (read "power"?) theory has supplanted scarcity as a basis for regulation, at 207.

109. Bazelon, supra, note 108, at 209; See also Bazelon's dissent in Brandywine-Main Line Radio, Inc. v. FCC, 473 F.2d 16, 76 (D.C. Cir. 1972); Hagelin, "The First Amendment Stake in New Technology: The Broadcast-Cable Controversy," 44 CIN.L.REV. 426 (1975). When the Supreme Court denied the FCC its content-oriented access regulations in Midwest Video II, it also denied one of Hagelin's "technological solutions," since the two-way requirements had been grouped with the access rules.

110. "NTIA Wants to Lift Fairness Obligations From Cable Systems With Access Channels," BROADCASTING, May 26, 1980.

111. "Freedom of the Press," BROADCASTING, May 19, 1980, at 79.

112. Home Box Office, Inc. v. FCC, 567 F.2d 9, 46 (D.C. Cir. 1977), cert. denied, 434 U.S. 829 (1978).

113. See, for example, address by Charles Ferris, "Broadcasters and the First Amendment: No Stone Tablets," to the Federal Communications Bar Association, Washington, D.C. (November 30, 1979).

114. Busterna, "Ownership, CATV, and Expenditures For Local Television News," 57 JOURNALISM QUARTERLY 287 (1980), at 290.

115. See, for example, NTIA "Comments and Recommendations on Communications Common Carrier Legislation," Interstate and Foreign Commerce Committee Report, supra, note 80, at 140.

116. Kaplan, "Trends in Persuasion on the Media: The Electronic Salesman and its Relationship to the Viewer," (1980) (unpublished paper presented at the Conference of the World Future Society, Toronto, Canada) at 10.