

**U.S. Trade in Communications  
and Information vs. General Trade:  
Is There Really A Difference?**

Oswald H. Ganley

***Program on Information Resources Policy***

Harvard University

Center for Information  
Policy Research

Cambridge, Massachusetts

A publication of the Program on Information Resources Policy.

U.S. TRADE IN COMMUNICATIONS AND INFORMATION VS. GENERAL TRADE: IS  
THERE REALLY A DIFFERENCE?\*

Oswald H. Ganley  
December 1982  
P-82-11

The Program on Information Resources Policy is jointly sponsored by  
Harvard University and the Center for Information Policy Research.

Chairman: Anthony G. Oettinger  
Director: John C. LeGates  
Executive Director, Postal & Allied Arenas: John F. McLaughlin  
Executive Director, Media & Allied Arenas: Benjamin M. Compaine  
Executive Director, International & Allied Arenas: Oswald H. Ganley

\* An earlier version of this paper was presented at the International  
Networks Committee, American Bar Assoc., Mt. Kisco, New York,  
March 29, 1982.

Copyright [c] 1982 by the President and Fellows of Harvard College.  
Not to be reproduced in any form without written consent from the  
Program on Information Resources Policy, Harvard University, 200  
Aiken, Cambridge, MA 02138. 617/495-4114. Printed in the United  
States of America.

Printing 5 4 3 2

#### ACKNOWLEDGEMENTS

Special thanks are due the following persons who reviewed and commented critically on previous drafts of this study. These persons, however, are not responsible for nor necessarily in agreement with the views expressed herein, nor should they be held accountable for any errors of fact or interpretation.

Jonathan Aronson  
Ronald A. Bamberg  
J. D. M. Davies  
Harry B. DeMaio  
Donald V. Earnshaw  
William D. English  
Richard D. Harris  
Penelope Hartland-Thunberg  
Norman M. Hinerfeld  
Meheroo Jussawalla  
Roger L. Levien  
Herbert E. Marks  
D. Verne Morland  
Dante N. Piccone  
E. Laurence Povich  
William H. Read  
Teresita C. Schaffer  
Joan E. Spero  
Raymond Vernon  
Robert Wedwick  
Jane H. Yurow

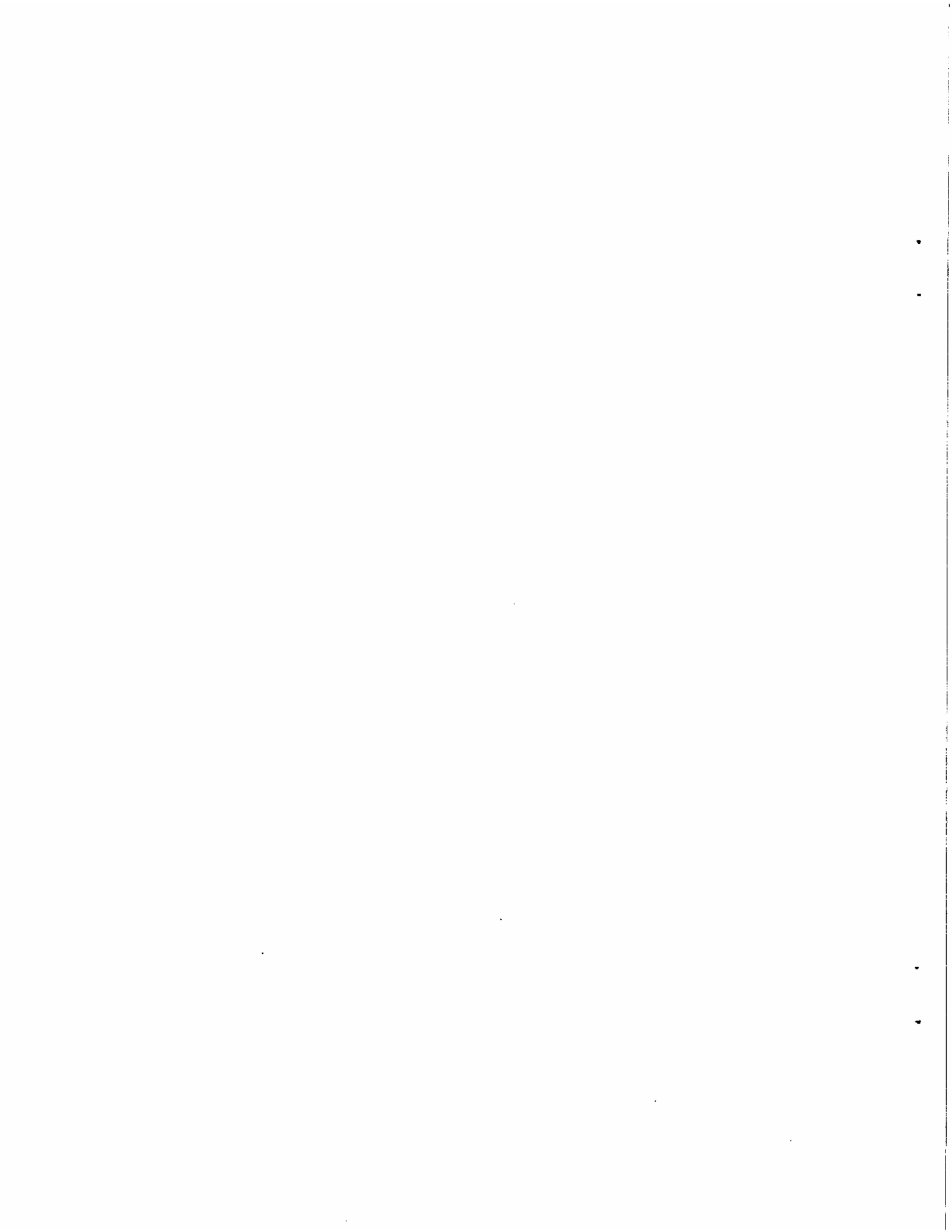


TABLE OF CONTENTS

Executive Summary . . . . . i

Introduction . . . . . 1

From Old-Fashioned to New Communications and Information -  
Quantitative Changes . . . . . 3

Qualitative Aspects of Communications and Information Which  
Might Make it Different From Other Trade . . . . . 8

Conduits . . . . . 9

Content . . . . . 12

Format . . . . . 14

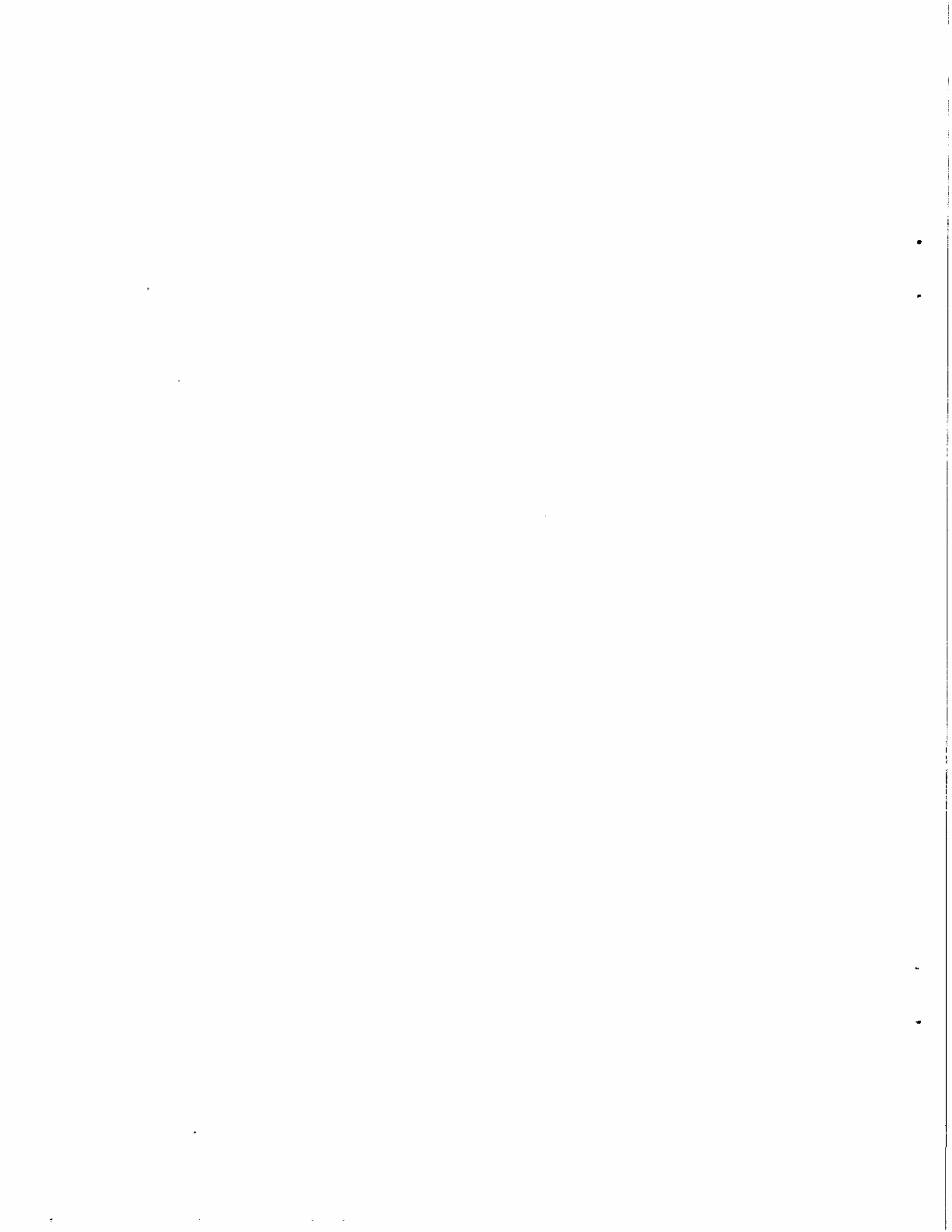
Hardware . . . . . 16

Function . . . . . 17

Legal and Other Implications' . . . . . 19

Conclusion . . . . . 23

Notes . . . . . 24

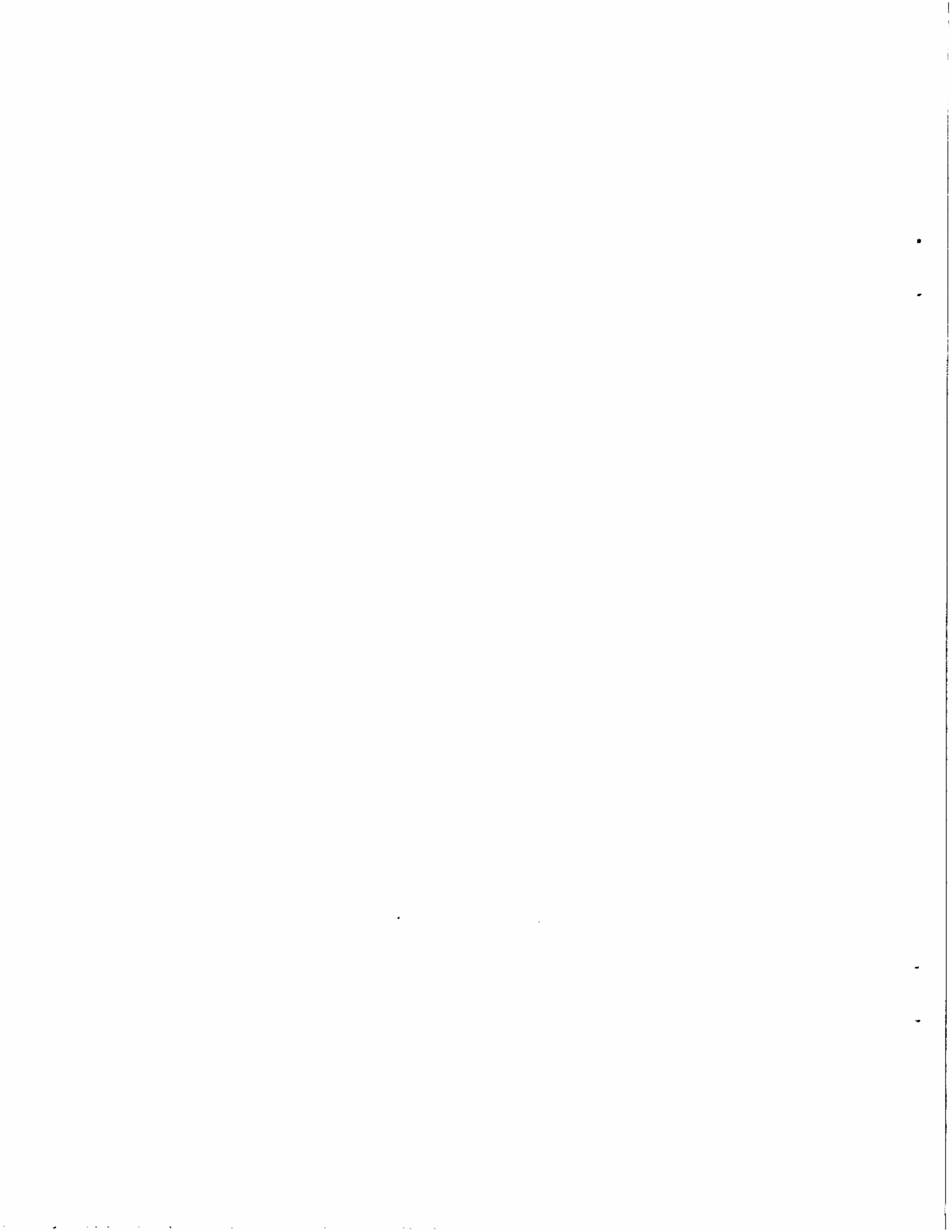


Executive Summary

Information is becoming increasingly important, both directly and indirectly, as a factor in international trade. Because of its sudden abundance, speed of dissemination, all pervasiveness, the convergence of information technologies and the fundamental structural changes which are taking place between and among industries, it is also leading to increased international complexities. Various groups are therefore calling for an international legal regime to deal with the suddenly escalated flow of information internationally.

But is trade in information really so different from other types of trade? And if not, is consideration of such a legal regime justified or necessary?

This paper suggests a number of ways in which trade in information might be examined in an effort to determine its similarities to and differences from "ordinary" trade. Information trade items are broken down into the conduits by which they are transmitted, the content they contain, the formats in which they appear, the hardware they are made up of, and the functions they serve in an attempt to shed light on this complicated issue.





## Introduction

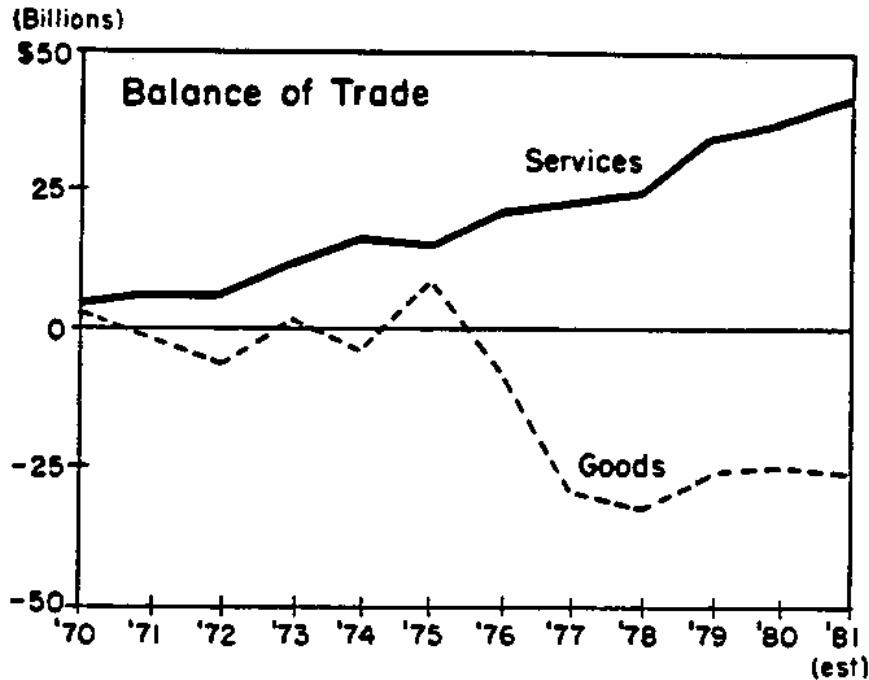
In contrast to fifteen years of deepening stagnation within most other U.S. industries, a virtual explosion of innovations has occurred in electronics in that same span of time. As a direct result, wholesale changes have taken place in communications and information. These changes have brought new types of trade in a wide range of communications and information-related products and services which will be of inestimable future importance globally. So will the influence these new technologies will exert on all the more general types of trade. Many of these technologies have already spread and like items are being produced and traded worldwide.<sup>1</sup> To dramatize the importance of communications and information, a Swedish parliamentarian is reported to have proclaimed that:<sup>2</sup>

"If Karl Marx were alive today he would not have written Das Kapital, he would have written Die Information."

There are numerous figures that have been used to describe the economic importance of communications and information. For instance, an OECD source says that:<sup>3</sup>

"... It is calculated that over the period 1965-75, the share of information-related goods and services increased from 13 to nearly 20 percent of total OECD exports of goods and services, and from 17 to 30 percent of OECD trade in finished manufactures."

The following U.S. Department of Commerce chart shows trade in services, which contains a great deal of trade in communications and information:\*



The Wall Street Journal, February 10, 1982  
(Reprinted by permission.)

Not all communications and information is services and not all services is communications and information. But the lines on the chart are quite typical of what is happening in this dynamic area. According to a report prepared for the U.S. Departments of State and Commerce and the U.S. Trade Representative, foreign revenues\*\* of the U.S. services sector amounted to about \$60 billion in 1980.<sup>4</sup>

\* All data on services trade are very incomplete and of dubious accuracy. Existing data should therefore be considered as indicating trends only.

\*\* Foreign revenues are comprised both of exports and of income from foreign affiliates.

This is nearly two-thirds that of exports of U.S. capital equipment and about equal to U.S. exports of all food and consumer goods for that same year.

Multiple international legal and other issues are already emerging and creating difficulties in these communications and information-inspired areas of trade. This can be expected to grow and become more complicated in future years as national and international economic systems become increasingly information intensive. Legal and other systems must be updated to cope with these changes if orderly trade is to continue and expand. This makes it imperative to determine what, if anything, is basically different between trade in communications and information and trade which is of a more general nature. To make such a determination requires that the really different be distinguished from what merely seems different, and the fundamentally relevant be sorted out from what may deserve attention only in passing.

This paper does not attempt to accomplish such a sweeping task. It does, however, lay some groundwork and give some descriptions which could be helpful in determining where such an investigation could usefully begin.

#### From Old-Fashioned to New Communications and Information -

##### Quantitative Changes

Seven simultaneously occurring changes are altering trade in communications and information in a fundamental way.

The first of these changes is a massive move from scarcity

to abundance in communications and information products and services. Within less than two decades, the state of the art has advanced rapidly across a wide range of these items. Almost overnight, new types of equipment, new systems, and new things that can be done with them have emerged. Thus, all sorts of previously nonexistent possibilities have been made accessible for the needs of trade.

The second change is in the convergence of communications and information technologies with each other. These technologies are operating in unison, or as parts of complete systems, thus causing or permitting new kinds of things to occur. These combinations are accomplishing things that are well beyond what any one of them could do alone. And they are not just helping each other out. Convergence is best demonstrated by the merger of computers with the telecommunications system (communications) in such a way that the two can no longer really be separated or even distinguished from each other.<sup>5</sup>

The third change is a two-pronged structural one that is taking place within and among industries. First, all U.S. industries are beginning to rebuild their basic infrastructures, grounding them on electronic communications and information technologies. The steel industry and the automobile industry are switching to electronic communications and information means to control production processes, for example, and banks and other institutions are conducting more and more of their business operations by electronic means. Secondly, with a great new communications and information market to be exploited,

just about everybody wants a piece of the action. Thus, a great deal of crossing over between types of industries is taking place, with non-communications and information firms like Citibank and Exxon moving into the communications and information field.<sup>6</sup>

The fourth change is the growing pervasiveness of communications and information devices in every area and walk of life. Communications and information devices are fast reaching individuals in all nations, not just in the industrialized parts of the world. Tape cassettes and long-distance dialing are in the hands of revolutionaries the world over. Everybody, globally, is seeing at least some of the same films and the same television shows. Computers are making their way into farmhouses just as did their predecessors, telephones, radios, and television sets. Individuals worldwide will very soon -- governments willing -- be able to have windowsill receivers for direct broadcasting by satellite television. INTELSAT now has 105 signatories, 75 of them from the third world. Thus, almost any nameable business, industry, government, or military organization is becoming increasingly involved in some or many of these communications and information activities.

The fifth change is in the speed of dissemination, which can be seen in data trade and in multiple other communications and information areas. The speed of the transportation system for information is unequalled by existing transport systems for any other commercial product.

The sixth change is seen in how international business is

transacted. Managerial control of multinational business is changing in character in response to growing capability for immediate access to worldwide information. Management now has more of a choice of whether to centralize or decentralize control, for instance. More kinds of information are becoming trade items themselves, with certain companies offering only information for sale. The choice of trade items thus grows steadily wider. New forms of financial exchanges now permit the conversion of one type of asset to another, which in turn leads to new marketplaces created especially for handling these kinds of deals.<sup>7</sup> There are many instances of this sort, all of them indicating that with communications and information advances, there is growing flexibility and at the same time growing complexity in both trade in communications and information and in general trade as a consequence of the introduction of these new electronic devices.

The seventh change is that these new electronic technologies are permitting communications and information and other types of trade and trade infrastructures to largely go global. Many facets of trade are now operating beyond the traditional national controls. And because of the nature and quantity of some new trade items, deep international concerns have in many instances been aroused.

Whether these shifts in abundance and convergence, in the activity, grounding and cross-overs of industries, in the pervasiveness and the speed of dissemination and in the changes in managerial operations and national control represent anything

more than quantitative changes remains to be examined. This is an important thing to know. For, if the communications and information changes are merely quantitative -- if the world simply has more of every new communications and information item and has it faster and in more places than is the case with other trade items -- then relatively slight modifications of the basic existing legal and other mechanisms which act to facilitate trade might suffice. If what we are seeing is merely a sector that is much more dynamic and in a greater state of chaos across a far wider percentage of its whole than is the case for the more traditional sectors, then precedents may be found in the older sectors from a time when they, too, were in their infancy. The usual knotty problem solving and negotiations necessary for all types of international trade might then be enough to smooth the path and alleviate the necessity for any wholesale changes.

Quantitative changes, when sufficiently exaggerated, do tend to become qualitative, however. But just when they reach this point is difficult to judge, and this makes assessment of the long-term impact of important changes like those occurring in communications and information that much more difficult to accomplish.

Qualitative Aspects of Communications and Information Which Might  
Make it Different From Other Trade\*

When communications and information is the trade item, the product may have up to five qualitative facets that could make it more complicated than its ordinary trade item counterpart.

The first facet that may be different, at least for the newer electronic communications and information trade items, is the conduit or the physical channel which has been put in place and through which the product, in this case information, can be transported. Electronic conduits include the transmission systems associated with satellite communications, with computer communications (communications), and with other forms of telecommunications, for instance.

The second facet of the communications and information trade item that may be different from other trade items is the content, or the information the medium contains. This includes things like news, financial and other data, various forms of entertainment, advertising and its close relative propaganda, and the computer software and the information embodied in chips.

The third facet that may be different is that the content of communications and information items is often displayed in unique physical forms. This is called format, and can be ink on paper, pictures on a video tube, sound from a speaker, informa-

---

\* The concepts discussed in this section are enlargements and some variations of one originated by my colleague, Benjamin Compaine. He used similar concepts to explain media activities, and here they will be applied to trade.



tion on a computer display, magnetized computer tapes, punched cards, bits composed of zeros and ones, impulses over a telecommunications line, broadcast waves, photocopied material, facsimile, etc.

The fourth facet is the facilitating hardware, or the actual information-gathering or communicating machinery involved. This can be telephone and television sets, computers, microphones, typewriters, remote sensing equipment, earth stations, transistor radios, cables, telephone lines, and the physical space satellites.

And the fifth facet that may be different is the specific communications and information function to which the conduit, content, format and hardware are dedicated. This may be broadcasting, publishing, data transmission, spying, and so on.

### Conduits

All trade items have conduits. But the first difference that can be seen between electronic communications and information conduits and regular trade conduits is that the former occupies an area that has traditionally been held close by the sovereigns of individual countries. With rare exceptions, the telecommunications system is owned by the state and regulated in the interest of national security. There are usually severe restrictions on foreign procurement and foreign ownership. Many other transport systems, especially airlines and railroads, are often state-owned and heavily regulated, of course.

But in strictly technological terms, computing and communications can no longer be differentiated and what has developed here is a hybrid function called communications. This is a merging of conduits from a regulated monopoly with computers that have belonged, until now, to the essentially unregulated private sector.

The second difference to be noted is that while the conduit for the ordinary trade item is a truck or a ship or a train, the conduit for much information today is some sort of electronic communications and information system. Communications cannot exist without information, so the conduit is part of a total system. Trucks can carry anything -- including information in the form of books, or computers or other communications and information hardware -- but a communications system can only carry information. Thus, there is an intimate relationship between at least a goodly part of the items involved in the new communications and information trade and the conduit by which it travels that often doesn't exist with other types of trade.

A third difference is that with the emergence of new communications and information conduits, the unit cost for transmitting some of the new communications and information trade items is relatively cheaper than the cost of transport for many conventional trade items.

A fourth difference is that because of the suddenly increased speed and volume of trade in communications and information, these items have become entangled in global political questions to a greater extent than is generally the

case for more conventional items of trade.

With the introduction of satellites and their attendant ground stations, the U.S. moved from a telecommunications system which linked a few nations serially to a situation involving the overall considerations of the total uses of outer space. Now, instead of a link to London and a link to Paris and a link to Tokyo, there are satellites that can beam everywhere and earth stations that can receive anywhere. By virtue of the advance in the state of the art of communications and information conduits, the U.S. has achieved instant global involvement. The U.S., for instance, may not trade with everybody, but it is going to have to deal with everybody if it wants to trade. And that means all trade. Because whatever happens in the communications and information area will have vital implications for all of general trade.

This global involvement means that the U.S. must be concerned about a lot of other things: questions of cultural identity and the national sovereignty of 150 nations; the competing military and civilian needs and the races between the superpowers; the problems of the haves and the have nots; and all kinds of new tensions with its best trading partners -- the other industrialized nations of the world.

In sum, we can see that an intimate relationship exists between the conduit and the product in the communications and information area which is not ordinarily seen in other trade. We are dealing here in an area which is, by tradition, heavily regulated. New conduits that don't fit conventional patterns

have sprung up. And as a consequence of these differences, the U.S. finds itself today in a global situation where, if it wants to deal with one nation, it must deal with all.

### Content

The second facet which makes trade in communications and information different is content, or the information that the product contains. A major difference between the general trade item and the information trade item is that content is about something. It is composed of ideas. It may be ideas expressed as art, or as financial data, or as scientific or engineering information, or it may be advertising. It may be about the financial situation of some individual or some company or some country. It may concern domestic defense or domestic economics. It may include proprietary secrets. Or it may be of privacy concern to natural or to legal persons. Content may on the one hand be less concrete and more difficult to define than the usual trade item, and on the other hand, more politically flammable. Similar problems are, of course, encountered with any trade item that appears to threaten national security.

Content may be overt propaganda. Or it may embody unwanted cultural information. When new parts of the world are exposed to unaccustomed content, there is often trouble. Content is responsible for the heated discussions on free flow of information -- especially concerning the rights of the news media -- in the United Nations Educational, Scientific, and Cultural Organization (UNESCO).<sup>9</sup> Content was responsible for the discussions and

eventual development of guidelines on personal privacy in the Organization for Economic Cooperation and Development (OECD).<sup>10</sup>

Content is one of the major new and expanded things being traded today and often has enormous value -- not just to the private trader but also to states. For many communications and information items -- films, TV programs, books and magazines -- the value of content has been determined and the trade is already regularized in some way. Difficulties arise with the newer, more nebulous, forms of trade, such as that in data communications, where the value of content varies widely and is difficult to fix. But whether this really makes it different from other trade, and whether there is some inherent reason why content cannot or should not be subjected to concrete valuation is questionable.

Where markets are well developed for specific items, value can be more readily determined. But, for instance, in intra-corporate information systems, or for financial transactions, value is harder to assess. The question is how to determine value for a somewhat less concrete product like information or where a market has yet to be defined. More important, perhaps, is to anticipate the consequences of placing a value on such goods and services that is in many ways arbitrary. This is especially important since the basis for arbitrary determination is likely to vary from country to country, but probably not more so than for more general trade items, where numerous precedents can be found.

The issue is not just whether a customs or a similar authority is properly equipped to place a value on content of an

electronic nature or on similar items of trade. In a mechanical sense, the Customs Valuation Code under the GATT provides for a valuation principle or transaction value, with an agreed upon series of alternate valuation methods. The fundamental question involved is whether it is appropriate for content to be included in the valuation for customs and tax purposes at all.

To sum up content, it embodies ideas, it is often politically very sensitive, it can arouse fears and cultural irritations, and thus it may be a target for restrictions that are politically inspired. When content is valuable it is vulnerable to taxes and tariffs, the appropriateness of which may be difficult to determine. The market imperfections that presently exist in the area of content would seem to be even greater than for most general trade items, wheat or oil, for example.

#### Format

Radical changes have occurred in the way the communications and information content is "packaged" -- that is, in format.

The dominant information format until three decades ago was ink-on-paper -- the print media. At the time of the 1934 Communications Act, sound (telephone, records, etc.), optical/mechanical light projection (film) and radio broadcasts existed, but print was still the main way to go. Since that time, electronic formats have virtually taken over but the U.S. is still operating from a set of print media ordinances

and laws. Such electronic media rules as have been devised are based on past scarcity rather than on today's abundance. This can be seen, for instance, in the way the courts have interpreted the rights and limitations of the electronic and print media in the Tornillo case and the Red Lion case.\*

Newspapers don't have to give space for reply but the electronic media do. The Chairman of the FCC, Mark Fowler, is now suggesting that with the abundance of radio and video stations and the advent of cable TV, there is no longer a need for a mandated right of reply, such as existed during an era of scarcity.

When formats change, problems of protection of intellectual property become acute. Ithiel de Sola Pool has an excellent discussion of the problems encountered when moving from book publishing where a certain number of identical copies are produced in one locale, into the computer area where material is both transmitted and modified.<sup>11</sup> Who owns such computer-modified material and how the owner holds onto his rights are two of the questions that must be addressed here.

Even if there are rules for the game there are problems of enforcement. If means are available to tape record in private homes from privately-owned televisions or stereo sets, who is going to put a stop to it? If a dish antenna strong enough to pick up any satellite transmission is available, who is going to

---

\* Miami Herald Publishing Co. vs. Tornillo, 418 US 241 (1974).

Red Lion Broadcasting Co. vs. FCC, 395 US 367 (1969).

keep the public from listening or viewing? If dry copiers are available that are fast enough and economical enough to reproduce printed material, who is going to control such reproduction? If someone wants to use tape cassettes or long-distance dialing for revolutionary activities, or to intercept telephone conversations in transit, a big enforcement problem is bound to ensue.

In sum, there are many new problems emerging concerning how to devise and enforce regulations where technologies such as those involving formats are rapidly changing. Intellectual property protection concerns come to the fore here. All pervasiveness is a real problem with formats, since this is where individuals the world over have really come into their own.

#### Hardware

The fourth facet of communications and information trade, the hardware, is perhaps the one most closely related to ordinary trade items. It is bought and sold and transported in individual pieces just like regular items of trade. But it cannot be divorced from the problems encountered with conduits, contents, formats and functions. Individual pieces of communication and information hardware are used to compose the communications and information conduit systems. And hardware often determines what content or format or function is to emerge. Communications and information hardware, especially that related to conduits, is often a highly protected national market which, for instance, the PTT's consider a part of their state monopoly. There are also



stringent U.S. restrictions on the sale of communications and information hardware to the Soviet Union, for instance, because of its dual capability for both civilian and military uses.

### Function

And the last facet, function, combines everything -- the content, the format, the conduit, and the hardware, and puts them to work. Here differences begin to get more complex. Traditionally, certain formats have been handled by certain industries. Publishers printed books and distributed them. That was their function. Television broadcasters distributed video programs. Newspapers printed the news and ran classified ads. Banks took care of checks and exchanged currency. And each group had its set of regulators.

But nothing is all that clear anymore.

Take TV for instance. From what the casual audience sees, it doesn't know whether the show is being broadcast over the air, or delivered by cable, or played from a video cassette or a video tape. The show may be coming from Timbuktu or from across the street. Except in subscribing for service, the audience doesn't care. But the television broadcaster cares. His suppliers care. And especially, the regulators care. For here you have put your foot right in the regulatory mess. There are 116 government agencies and departments who regulate U.S. business, twenty of which have sprung up since 1970. At least fifteen, many among the newer ones, concern themselves with communications and information.

The Wall Street Journal now transfers its material electronically to be printed in Hong Kong as well as in other cities domestically. So here we have a print medium using the electronic medium, but operating under different rules. The New York Times Publishing Company and other publishing companies have entered the direct mail, film, TV programming, broadcast station and paper industries. Some are providing information services which are increasingly electronically delivered and computer organized and manipulated. Banks are offering all kinds of heretofore unheard of services, while many non-banking industries are cutting into the traditional services offered by banks. AT&T is now processing and delivering its telephone services using computer assisted techniques. And IBM, through its partnership with Aetna and COMSAT in SBS, is getting into the communications end of the business.

One point where battle lines are being drawn is over the telephone yellow pages. If, as is being planned, these pages are converted to an easily updated electronic format, the yellow pages may cut seriously into the daily newspaper revenues from classified ads. Newspapers are also concerned that dominant carriers (i.e., even the new AT&T) may be permitted to publish information over their own monopoly transmission lines.

The recent settlement of the AT&T antitrust case will permit the reorganized AT&T to move more freely into the computer and data processing (enhanced) services area. The decree will cause a major shakeup in the whole U.S. communications industry, for it will give AT&T the legal freedom to move from providing strictly

conduits to being able also to provide content. AT&T will thus be allowed to expand its non-common carrier function.<sup>12</sup> IBM, meanwhile, will be breaking into a traditionally regulated realm.

#### Legal and Other Implications

The communications and information sector as it relates to trade has been described and broken down to permit accessibility to policy and legal considerations. On close examination of these separate factors, it may be found that what falls outside the existing trade framework is just a facet or two and not the whole communications and information item. Or it may be that an area which still appears intact has actually been so skewed by new circumstances that it is, in fact, no longer workable. It may take only one facet to provide the legal loophole to get around an otherwise adequately covered area, and that may be good or bad, depending on the perspective. It may be that one facet provides most of the stumbling blocks or can be used to frustrate or unwarrantedly restrict the others.

However this may be, we know that a combination of dramatic communications and information changes has already led us to an attempted rewrite of the 1934 Communications Act. It is forcing us to reconsider the Equal Time and Fairness Doctrines. It has stirred up the controversy over conditions for renewal of radio and television licenses. It brought about Computer Inquiries I and II, and the 1982 AT&T Consent Decree. To a certain extent, it has led to the dropping of the IBM antitrust suit. It has

prompted many problems in UNESCO, caused discussions over prior consent, and is involving more and more of OECD's time. This is what, in 1979, stopped WARC\* from being a once-in-every-two-decades event, and spawned numerous conferences to be held over the next five years.

And this is just the beginning: the situation is going to get more complicated. More and more problems are going to arise. The U.S. is going to have to deal in the future with an increasing number of issues with 150 countries that differ radically in political and economic ideology. These countries are at many stages of development and have many varying and often conflicting interests, wants, and needs. They also have different approaches to law. There is, therefore, a big set of questions that ought to be thought about seriously.

The following are just some of them:

... To what extent is ordinary trade law applicable to trade in communications and information? Are there specific problems related to communications and information trade that cannot be dealt with using ordinary legal remedies? Is it just a matter of getting a few problems ironed out?

... How can the common law approach of the U.K., Canada and the United States be reconciled with that of Europe which is steeped in civil law traditions? Is it possible to bridge the gap between those who look for solid rules to be administered by executive bodies with the approach of handling individual cases through the courts?

... How is the European omnibus approach reconcilable with the U.S. preference for dealing with instances of demonstrated abuse?

... In Europe and the developing countries there is a profound struggle between those who would liberalize telecommunications and those who would bring the whole data processing industry under a government owned or regulated umbrella. Can this, in turn, be reconciled with the trend toward increasing competition within the telecommunications industry in the U.S.?

---

\* World Administrative Radio Conference

... How is the United States' legal profession, and its private practitioners specifically, interacting with legal principles being espoused or enacted in other countries or in multinational bodies?

... Are present concepts of choice of law and conflict of law adequate to the task of dealing with communications and information matters, for instance in such areas as international distributed networks?

... Ought Admiralty law be more closely looked at, and could some of its concepts, such as innocent passage, or international free ports, be applied to global communications and information?

... Are there specific U.S. laws that hinder international trade in communications and information goods and services? If so, what should be done about them?

... Is this the time to consider legal concepts related to labor relations? Communications and information is very likely to create major structural disruptions in the labor market which may be international in character. Is anybody minding the store here?

... How is it possible to deal with real or potential problems in this new trade area without killing off the technological goose? Too rigid a legal framework could suffocate a technology that is still dynamic and rapidly changing.

... Would it be better to attempt to formulate an international communications and information policy and put these matters into a framework of international organizations and bodies dealing with problem resolution for communications and information specifically? Or are there advantages -- and to whom -- of having these various matters treated within well established trade channels such as GATT, or the OECD Trade Committee?

... Is the legal approach even the way to go? Or is the political, trade and economic negotiation and settlement approach more flexible and more suited to this type of question? A problem with the legal approach is that it has yet to be shown that various types of communications and information products and services are sufficiently similar to warrant the construction of a legal framework specifically devoted to this area.

Various parties within the context of the OECD, and especially the New World Information Order advocates, are suggesting, even demanding, new international regimes. This appears to mean writing whole new rules for the game. What are

the U.S. interests here? A logical argument could be made that this is a new area, so make new rules. But is it more advisable to follow the present U.S. approach, that is, to go on a case-by-case basis and make changes as necessary? We should remember that the U.S. de facto wrote the "old" rules, as a result of initial market domination. These de facto rules are pragmatic applications of the free trade institutional order drawn up in GATT, the IMF, and the World Bank during the Post World War II era. Should the US now begin thinking in terms of formalizing rules for communications and information trade that would formally extend this free trade tradition to cover the changed technological conditions?

More than anything else, many U.S. businesses are seeking a way to bring about the certainty and foreseeability that would permit rational planning and investment. They are also seeking a framework in which their strong trading position can be maintained. The question is how this can best be accomplished. It is probably too early at this point to take any fixed stand. Short term, it might seem to be more in the U.S. interest to go case-by-case, but is this really so in the long term? Unless a strong case can be made that trade in information is different in important ways from other types of trade, and unless it can be shown that information of varying kinds has a universal quality, it would be advisable to exercise extreme caution before entering into any sort of broad negotiations. In any case, the various Law of the Sea Conferences<sup>13</sup> should be kept in mind, and no such undertaking entered into lightly.

### Conclusion

Even as this paper is being written, there are many individual outstanding questions which need resolution. There is much involved here for the U.S. and for the rest of the world: Newness, abundance, high speed, political sensitivity, all-pervasiveness, global involvement, impingement on sovereignty, economic attractiveness, potential for military use and regulatory crossovers to name just a few of these ongoing changes. These rapidly evolving changes produce both opportunities and conflicts with which no country in the world is presently prepared to deal in a political, economic or legal sense.

The structural, economic, employment, political, social and military forces that have been set loose by the applications of new communications and information technologies are -- with differences in detail -- the same in all advanced countries as they are in the U.S. And they are the same, or will rapidly become so, in many of the developing nations as well. The drama being witnessed in the U.S. on the future of the telecommunications industry will probably be played out with equal noise, emotion and rancor in all 150 of the world's nations. And it is the outcome of the struggles of these multiple jurisdictions that will ultimately shape international communications and information trade.

Notes

- 1 Oswald H. Ganley and Gladys D. Ganley, To Inform Or To Control? The New Communications Networks. McGraw-Hill Book Company, New York, 1982, p. 3.
- 2 Ed Ploman, "The Communications Revolution," Editorial, Intermedia. September 1981.
- 3 H.P. Gassman, "Is There a Fourth Economic Sector?", The OECD Observer. No. 113, November 1981, pp. 18-20.
- 4 The International Operations of U.S. Services Industries. Current Data Collection and Analysis. Final Report. Prepared for the U.S. Departments of State and Commerce and the Office of the U.S. Trade Representative by Economic Consulting Services, Inc. Washington, DC, June 1981.
- 5 Anthony G. Oettinger, "Information Resources: Knowledge and Power in the 21st Century". Science, Vol. 209, July 4, 1980, pp. 191-198.
- 6 John F. McLaughlin with Anne E. Birinyi, Mapping the Information Business. Program on Information Resources Policy, Harvard University, Cambridge, MA , Publication P-80-5, July 1980.
- 7 United Nations Economic and Social Council: On the Effects of the Operations and Practices of Transnational Corporations, E/C.10/87 6 July 1981. Commission on Transnational Corporations, Seventh Session, Geneva, August 31-September 14, 1981.
- 8 Benjamin M. Compaine, A New Framework For The Media Arena: Content, Process and Format. Program on Information Resources Policy, Harvard University, Cambridge, 1980.
- 9 Oswald H. Ganley and Gladys D. Ganley, To Inform or To Control? The New Communications Networks. McGraw-Hill Book Company, New York, 1982, p. 71.
- 10 Ibid, p. 83.
- 11 Ithiel de Sola Pool and Richard Solomon, "Intellectual Property and Transborder Data Flows." Stanford Journal of International Law, Summer 1980, pp. 113-139.
- 12 Henry Geller, "The New Telecommunications Act As a Regulatory Framework". Presentation at the Conference on Regulation and New Telecommunications Networks, Arden House, June 2-4, 1982.



U.S. Department of Commerce, NTIA, Major Telecommunications Policy Proposals, Washington, DC, May 5, 1982.

- 13 Leigh S. Ratiner, "The Law of the Sea: A Crossroads for American Foreign Policy". Foreign Affairs, Summer 1982, p. 1006.

