



CIRF

**Converging Industries Research
Foundation**

Practical Solutions for Communications Policy

**Square Pegs and Round Holes:
Mismatches Between Government
Policies and Converging
Communications Market**

April 16, 1993; Revised October 19, 1993
White Paper for NARUC

Square Pegs and Round Holes: Mismatches Between Government Policies and Converging Communications Market

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Project Information

**Telecommunications Industries Analysis Project:
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Mismatches Between Government Policies and Converging Communications**

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The Telecommunications Industries Analysis Project is associated with the Center for Telecommunications Management at the University of Southern California School of Business Administration.

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List of Participants in the Telecommunications Industries Analysis Project

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State Regulators	NARUC Representatives from: Iowa Utilities Board New York Public Service Commission Washington Utilities and Transportation Commission
Regional Holding Companies	Ameritech Bell Atlantic NYNEX Pacific Telesis Southwestern Bell U S WEST
Large Independents	GTE Sprint Local Telecom Division
Small Telephone Company Representatives	NTCA OPASTCO
Interexchange Carriers	AT&T Sprint
Manufacturers	Corning Northern Telecom
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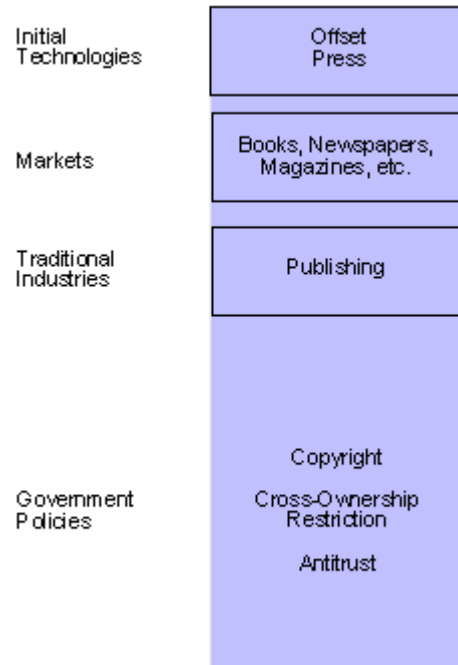
Introduction

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Information age services that meet the broad range of needs for today's customers are technologically feasible. These customer needs are driving a convergence of technologies, markets, and industries. However, current government policies that were appropriate for yesterday, do not match this reality.

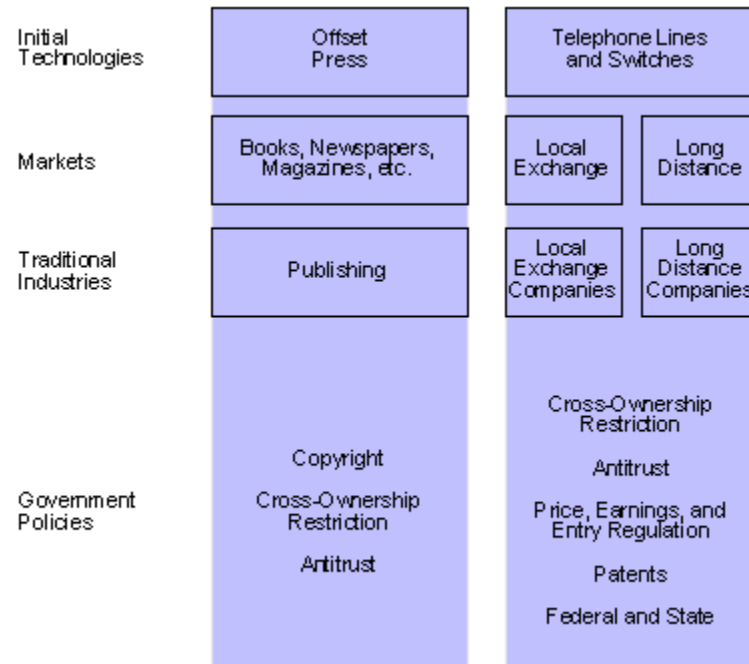
Current government policies grew along traditional industry, technology, and market boundaries. This paper illustrates four converging communications industries (publishing, telephone, broadcast, and computer) and the policies applied to each industry.

Figure 1
Match between Industry Structure and Government Policies: Publishing



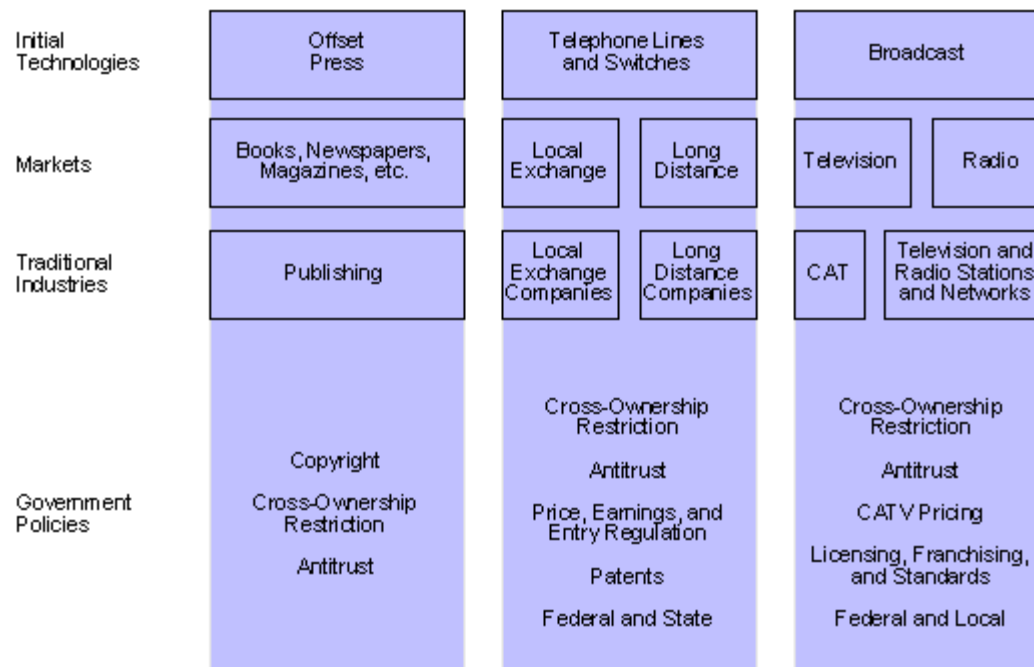
The offset press led to the development of the publishing industry. Government policies encouraged new products by protecting property rights (copyright), promoted multiple voices (restrictions against common ownership of broadcast stations and newspapers in the same market), and favored competition (antitrust).

Figure 2
Match between Industry Structure and Government Policies: Telephone



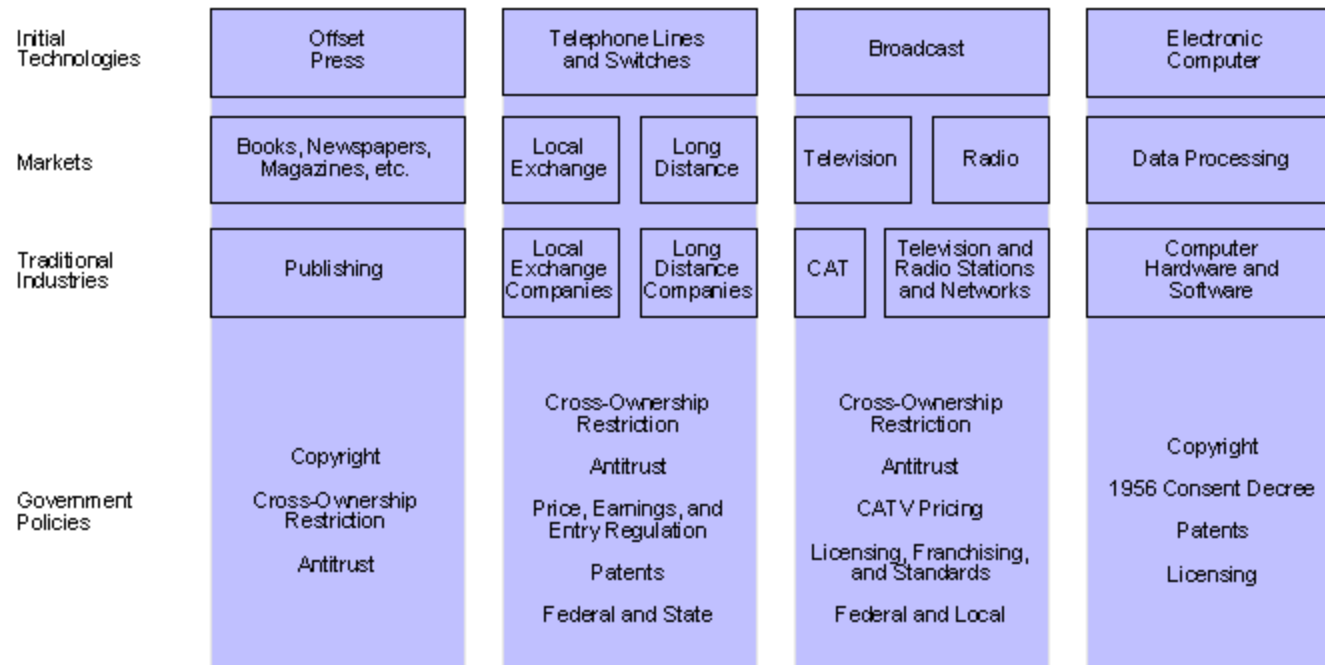
Early telephone technologies (analog wires and mechanical switching) led to the development of two distinct markets — local exchange and long distance. There were several government policies. Government promoted development of new markets (restrictions against common ownership of traditional telephone and cable television, and antitrust enforcement), promoted universal service (price regulation), protected shareholders (earnings regulation), and ensured market stability (entry restrictions). Government also encouraged new products by protecting property rights (patents) and oversaw commerce (federal and state regulation).

Figure 3
Match between Industry Structure and Government Policies: Broadcast



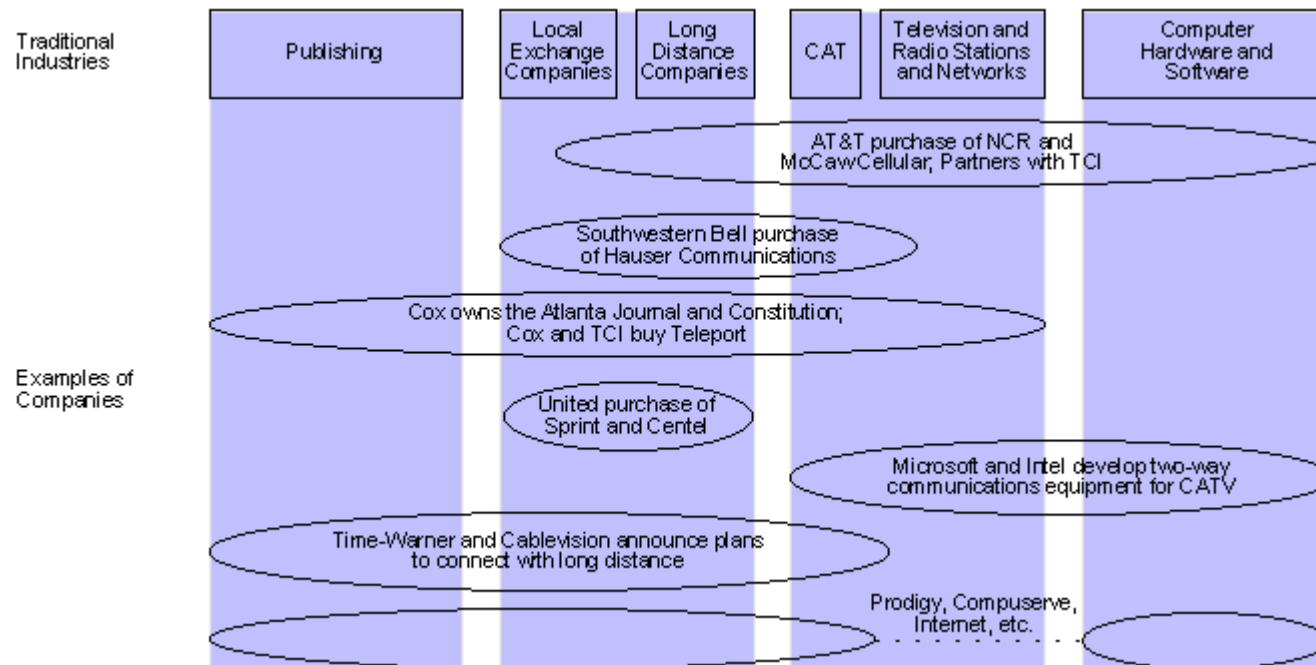
Broadcast technologies led to the development of first radio, then broadcast television, and then cable television. Government policies promoted multiple voices and development of new markets (restrictions on common ownership of broadcast stations and newspapers in the same market, traditional telephone and cable television in the same market and antitrust), protected consumers (price regulation of cable television), ensuring market stability (licensing, franchises, and standards), and promoted both federal and local interests (federal and local regulation).

Figure 4
Match between Industry Structure and Government Policies: Electronic Computer



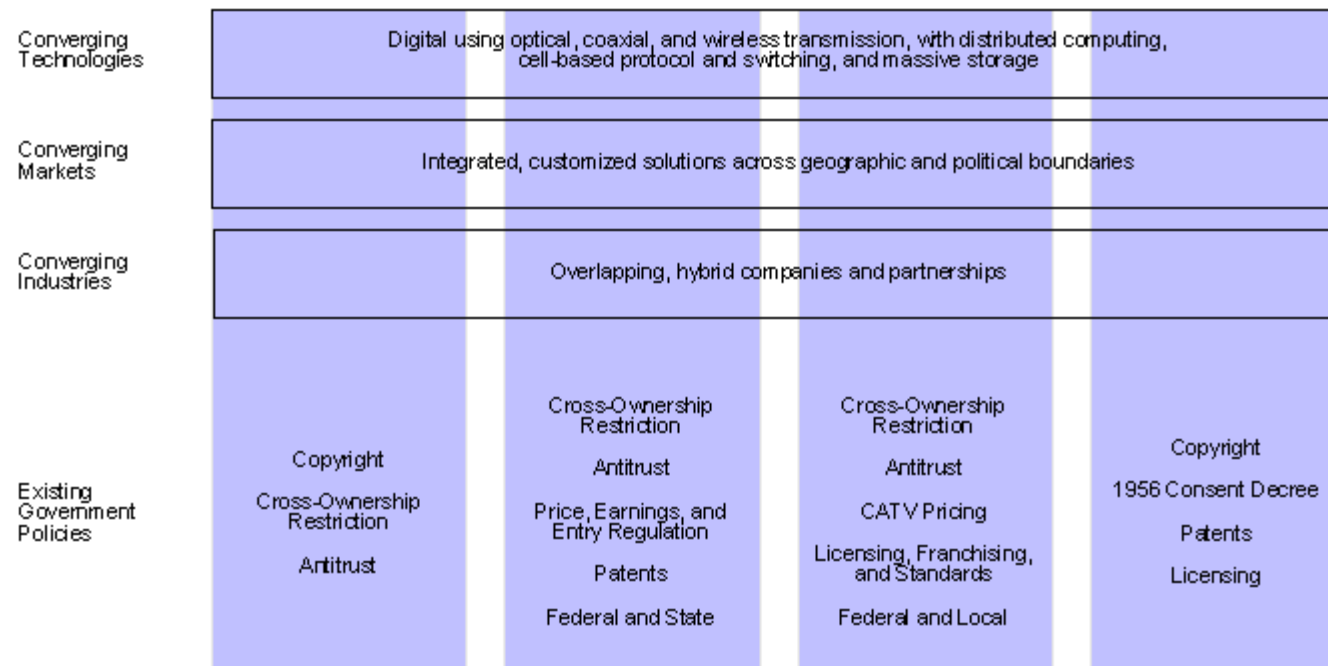
Electronic technologies led to the development of the computer industry. Separate markets developed for mainframe, mini, and personal computers. Government policies encouraged new products by protecting property rights (copyrights and patents), promoted development of new markets (antitrust decisions), and protected against spectrum interference (licensing).

Figure 5
Examples of Industry Convergence



New technologies are available to meet the sophisticated needs of customers. Companies are positioning themselves to meet these customer needs by creating hybrids that cross traditional industry boundaries.

Figure 6
Mismatch between Government Policies and Converging Structures



The new technologies and industries are indifferent to whether the customer is using voice, video, text, or data. As a result, traditional boundaries for technologies, markets, and industries are disappearing. However, corresponding changes in government policies have yet to occur. In this figure, the mismatch between government policies (shaded, vertical boxes) and converging structures (horizontal boxes) is represented by the white spaces.

Government policies are being applied inconsistently to companies that increasingly offer essentially substitutable services. Furthermore, the policies themselves often provide conflicting signals.

Conclusion

Conclusion

The mismatch between government policies and industry realities raises questions. Examples include:

- How will government policies realign themselves to match the single, emerging communications industry? How will the current patchwork of federal, state, and local policies be reconciled?
- How will customers get what they need? Will government policies hurt or help?
- How will customers, business, and government objectives mesh? Are there differences? If so, what is important for reconciling these differences.
- What industry changes may be necessary to serve customers?
- What happens if government policies do not change?