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Communications Policy, Media Development, and Convergence

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Abstract

In the deliberations of scholars, policy analysts, and policy makers, television has exceptional power and influence. Yet the historical record shows that television has not changed the economics of attention for large populations in the course of their daily lives. By the mid-1920s, print media alone were highly successful in creating new consumer visions and aspirations, building national brands, and establishing significant brand equity. The advent of radio and television did not change total advertising spending as a share of total economic output, nor did it change significantly total advertising spending per adult media hour. The contrast between communications policy and the reality of media development is not merely a fluke or just ironic. It points to a major impediment to the development of information societies. State-owned-and-controlled media can be an important policy lever for overcoming this opposition and promoting the growth of more diverse media environments and more diverse ways of interacting with media.

¹ The most current version will be available from <http://www.erols.com/dgalbi/telpol/think.htm> or <http://www.galbithink.org>.

² The opinions and conclusions expressed in this paper are those of the author. They do not necessarily reflect the views of the Federal Communications Commission, its Commissioners, or any staff other than the author. I am grateful for numerous FCC colleagues who have shared their insights and experience with me. Author's address: dgalbi@fcc.gov; FCC, 445 12th St. SW, Washington, DC 20554, USA.

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I. Introduction

Convergence is widely considered to be about television. Anticipated developments – “interactive television,” “TV meets the Web,” “the coming collision of the Internet with broadcast law,” etc. – describe enhancements to television, new platforms for television, and the relationship between the regulatory framework for television and that for other media.³ Policy makers have considered at length how to foster the development of high-density television and digital television.⁴ Internet content providers have sought to move from banner advertisements to advertisements more like those on television. From the perspective of many advertising agencies and Internet entrepreneurs, streaming media, following the model of television, are necessary to get rich, to be entertaining, and to hold persons’ attention.

Television is subject to detailed and distinctive government regulation, and among most scholars, policy-analysts, and policy-makers, television is considered especially powerful and influential. Thirty years of deliberation of US broadcast law demonstrate clearly the power and influence of television on this group of persons. Further scholarly and policy deliberation about the special power and influence of television does not appear to be worthwhile. If convergence is about television, or something like television, convergence will happen only very slowly.

The historical record indicates, however, that different media have not had dramatically different effects on the mundane personal choices of large populations. Television did not replace reading or other activities; it supplemented them. Over the past seventy-five years, growth in discretionary time can account for all the time currently spent watching television. Moreover, the advent of radio and television has not changed total advertising spending as a share of total output, nor changed significantly total advertising spending per adult media hour. The historical record shows that print media alone were sufficient

³ In its Public Notice indicating approval of the merger between America Online (AOL) and Time Warner, the FCC stated its intention to initiate a proceeding on “interactive television services.” See FCC 01-11, January 11, 2001. “TV Meets the Web” is the name of Van Dusseldorp & Partners’ website and newsletter focusing on media convergence in Europe. See <http://www.tvmeetstheweb.com>. A workshop on Next Generation Internet Policy in Brussels in mid-September, 1999 highlighted “the coming collision of the Internet with broadcast law.” The European Commission and the Global Internet Project (GIP) co-hosted the forum. See the GIP publication, “Convergence & Cyberspace: New Challenges Emerge” (May 20, 2000), p. 3. Paper available at http://www.gip.org/publications/classification.asp?CLASSIFICATION_ID=10.

⁴ In a major industrial policy initiative, in 1997 the FCC gave additional spectrum to each television licensee for the provision of advanced television, high density television, digital television, or other services; the total value of this spectrum has been estimated to be \$15-\$70 billion dollars. The development of this policy is still widely discussed. See, for example, “FCC Chairman Kennard Calls For More Benefits To Public From \$70 Billion Give-Away Of 2nd Digital TV Channel,” FCC Press Release October 10, 2000, online at http://www.fcc.gov/Bureaus/Miscellaneous/News_Releases/2000/nrmc0044.html; *Report of the Advisory Committee on the Public Interest Obligations of Digital Television Broadcasters* (Dec. 1998), online at <http://www.ntia.doc.gov/pubintadvcom/pubint.htm>; for FCC proceedings in this area, see <http://www.fcc.gov/dtv/>. Other countries are encountering the same policy issues; in Australia, see for example, Given, Jock, “Digital D-Day” (20 July 1999), online at http://www.comslaw.org.au/research/Broadcasting/19990729_digitalaq.html.

to create new visions and aspirations, build national brands, and generate significant commercial value. For the most part, divergence never occurred in the economic effects of media.⁵ Hence convergence cannot be slow in coming.

In any case, communications policy should promote, not convergence, but worthwhile social, political, and economic goals. The historical record shows that over seventy-five years advertising has grown about the same rate as the over-all economy. Thus if policy seeks information industries to serve as an engine for creating new economic opportunities and jobs, policy should seek to develop media not supported by advertising. Most persons today spend a large amount of time within the home, sitting down, watching pre-packaged, distributor-scheduled streaming audio and video, i.e. television. If “the greatest menace to freedom is an inert people,” policy should encourage the growth of more diverse media environments and more diverse ways of interacting with media.⁶ To promote serious discussion of serious issues, as well as the release of human energy in healthful productive, avocational, social, political, and ludic communications,⁷ policy should encourage the development of a multiplicity of communications sources and outlets.

Stating policy goals is easy; the question is always what to do. The growth in the number of participants in the communications industry, the globalization of firms, and rapid technological change make many traditional policies unintelligible or ineffective. In the Microsoft antitrust case, in the AOL Time Warner merger, and in formulating pricing policies, policy makers and industry participants are increasingly recognizing the importance of economics of attention.⁸ An insightful policy analyst pointed out early in the 1990s:

When new technologies conducive to increasingly diverse and smaller-scale mass communications emerge, commercial market forces and deeply ingrained media habits pull back hard in the other direction.⁹

Communications policy needs to identify effective levers for influencing commercial media development and wide-spread habits of media use.

⁵ Thus for policy purposes television is not something to be made into an appliance like a toaster; it’s always been more or less like *People* magazine with animation.

⁶ The quotation is from the concurring opinion of US Supreme Court Justice Louis Brandeis in *Whitney v. California* 274 US 357 (1927). Articles in the trade press indicate that Internet appliances currently under development may foster the growth of more diverse environments for media use and more diverse ways of interacting with media.

⁷ The provision of mere entertainment, while not encouraged, is generally tolerated.

⁸ A key issue in the Microsoft case relates to how control was exercised over the first screen seen when starting Windows. The first screen is important because most users notice it and do not change it. Similarly, the FCC’s approval of the AOL Time Warner merger included a condition requiring that AOL Time Warner must allow ISPs providing services over AOL Time Warner facilities to control the contents of the first screen that subscribers see. With respect to pricing policies, Odlyzko, Andrew, “The history of communications and its implications for the Internet” (available at <http://www.research.att.com/~amo>) shows that historically customers have preferred flat-rate communications services. With such services customers do not have to pay attention to usage. For a short, well-written article building on Odlyzko’s work, see Cohen, Hal, “The Price is Wrong,” *The Industry Standard*, January 1-8, 2001, online at www.thestandard.com.

⁹ Neuman, W. Russell, *The future of the mass audience* (Cambridge, UK: Cambridge Univ. Press, 1991) p. 165.

In the right media environment, state-owned-and-controlled media can be such levers consistent with liberal, democratic values. The unattractive history associated with such forms of media, as well as the past limited scope of broadcasting opportunities, has rightly foreclosed most consideration of such policy instruments.¹⁰ Current and anticipated changes in relevant circumstances suggest that more extensive discussion of state media is now warranted.¹¹ State-owned-and-controlled media might be used to help change habits of media use, address issues that are hindering the development of business plans for commercial Internet information sources and services, and further the separation of politics and business in the information industry. Recognizing the importance of economics of attention, communications policy should converge with media developments.

II. Thirty Years of Deliberation of US Broadcast Law

Since the late 1960s scholars, policy-analysts, and policy-makers have deliberated extensively about the legality and desirability of regulating broadcasting differently from print media in the US.¹² The US experience offers rich insight into the special power and influence of broadcasting. In contrast to most countries, in the US there has been private, commercially driven broadcasting continually since the mid-1920s. The fundamental US sector-specific statutory law regulating broadcasting has not changed since 1934. Moreover, in contrast to European constitutional law, US constitutional law features greater continuity of texts, a more clearly defined domain of texts, and a more rigidly structured textual hierarchy. In this context, commercial and institutional incentives, deep ideological currents of skepticism toward constraints on personal and entrepreneurial freedom, and a rich civic tradition of articulating the public interest have powered deliberatively productive clashes between broadcast law and other legal claims. In the US the special nature of broadcasting has been discussed and scrutinized at various levels for over thirty years.

At the end of the year 2000, highly respected commentators and relevant US government institutions are deeply divided on broadcast law, and there have been no clear, widely accepted changes in policy orientation.¹³ The current practical significance of US

¹⁰ “Unattractive” means here unattractive to most persons living in high-income liberal democracies. Many persons living in formerly communist countries in Central and Eastern Europe now consider the historical period associated with state media to be preferable to their current situation.

¹¹ Constitutional law might rightly preclude policies that seem desirable in particular circumstances; clearly a strong constitution is important to public health. I leave to others to analyze questions of constitutional law. Note, however, that observed new practices are consistent with the emergence of state media. See Section VI.

¹² Important early contributions to these deliberations are the Supreme Court case and judgement, *NBC v. United States*, 319 US 192 (1943) and Barron, Jerome, “Access to the Media – A New First Amendment Right,” 80 *Harvard Law Review* 1641 (1967).

¹³ Recently the FCC’s personal attack and political editorial rules have created an unusually dramatic controversy. See Joint Statement of Commissioner Susan Ness and Commissioner Gloria Tristani Concerning the Political Editorial and Personal Attack Rules (Gen. Docket No. 83-484) [on the web at

broadcast programming regulation may be rather small.¹⁴ However, the discourse associated with US broadcast programming regulation is closely related to that associated with broadcast ownership regulation. Parties have argued that such regulation has highly significant effects, and regulations concerning broadcast ownership currently present important, contentious issues before the FCC. Moreover, broadcast programming regulations often have a broader scope and are more determinately implemented elsewhere.¹⁵

In important ways thirty years of deliberation of US broadcast law have been fruitful. This experience provides important evidence about the economics of human attention with respect to scholars, policy-analysts, and policy-makers. It shows that broadcasting has a powerful and influential position, and that changes in broadcast law are not likely to be the result of scholars, policy-analysts, and policy-makers' deliberations.¹⁶

Consider an important text published and widely read in the US over twenty years ago. A young scholar wrote, acknowledging and strengthening the conclusions of a growing literature, "Differences [between print and broadcasting] indeed exist, but they are either too insignificant to justify momentous distinctions in treatment under the first amendment or too broad and vacuous to be persuasive. We must, therefore, conclude that they are the same."¹⁷ He then noted, "...society has long considered broadcasting to be meaningfully different from the print media, and this perception has greatly influenced the decision to allow regulation only in the former."¹⁸ Finally, the scholar went on to provide a rational defense for different regulatory treatment of broadcasting, given that there are no relevant differences between broadcasting and print. This argument proved to be highly influential, at least in the legal academy.¹⁹ The success of the argument

<http://www.fcc.gov/Speeches/Ness/States/stsn819.html>], Joint Statement of Commissioners Powell and Furchtgott-Roth, Re: FCC Gen Docket No. 83-484 [on the web at <http://www.fcc.gov/Speeches/Powell/Statements/stmkp817.html>], FCC Order and Request to Update Record (rel. Oct. 4, 2000) MM Docket No. 83-484 [on the web at http://www.fcc.gov/Bureaus/Mass_Media/Orders/2000/fcc00360.pdf], FCC Order (proceeding terminated) (rel. Oct. 23, 2000) MM Docket No. 83-484 [on the web as Word document at http://www.fcc.gov/Bureaus/Mass_Media/Orders/2000/fcc00386.doc , as text file (without footnotes) at http://www.fcc.gov/Bureaus/Mass_Media/Orders/2000/fcc00386.txt].

¹⁴ One respected scholar states that in some measure traditional US broadcasting regulation is still in place, but it has a "musty odor." He states, "...neither private or public controls seem likely to have a large impact on the free flow of information and ideas." See Robinson, Glen O., "The Electronic First Amendment: An Essay for the New Age," 47 *Duke Law Journal* (March, 1998) p. 903, 970.

¹⁵ For a review of broadcast programming regulation in Britain, France, Germany, and Italy, see Barendt, E., *Broadcasting Law: A Comparative Study* (Oxford: Clarendon Press, 1993) Chapter V.

¹⁶ This analysis of the economics of human attention is different from an analysis of professional interests and incentives, which would consider, for example, interests in getting re-elected or re-appointed, or the relative personal returns from exploring news ways of shaping foundational law versus collecting and publishing numbers. For an example of such analysis, see Powe, L.A. Jr., "The Supreme Court, Social Change, and Legal Scholarship," 44 *Stan. L. Rev.* 1615 (July, 1992), Section V.

¹⁷ Bollinger, Lee C., "Freedom of the Press and Public Access: Toward a Theory of Partial Regulation of the Mass Media," 75 *Michigan Law Review* (Nov. 1976), p. 16.

¹⁸ *Id.*, pp. 16-17.

¹⁹ Powe notes, "...it swept the legal academy, being immediately and impressively embraced in Laurence Tribe's treatise *American Constitutional Law* and becoming the standard citation in any discussion of the topic [footnote to *American Constitutional Law* omitted]." Powe, Lucas A., Jr, *American Broadcasting and*

shows the powerful intellectual position of broadcasting law and the extensive rational resources and options available to justify it.²⁰

Broadcasting has successfully invoked the emotive power of democracy, education, and other important values.²¹ The following scholarly analysis of broadcasting's importance provides a good example:

A well-functioning democracy therefore depends not just upon a formal education system, but also upon an ongoing informal education system.

In the United States, this informal education system has many components – film, newspapers, books, journals of opinion, magazines, radio, political campaigns, billboards, marches, workplace conversations – but none is as important as television.

...The Internet provides vastly more information than television, but does so only if citizens actively seek that information out. Television informs even the passive observer.

...It [television] defines the public. ...more than forty million households tuned in for the final episode of *Seinfeld* [a thirty minute adult situational comedy]. Television is unique in its capacity to produce this type of shared experience and for that very reason can be regarded, at least today, as the paramount public medium.²²

Here television shows its power in a seamless argument from democracy to education to *Seinfeld*. Other arguments have linked broadcasting to other emotive subjects such as raising children, sex and violence, self-improvement, and helping disabled persons. The success of such arguments demonstrates broadcasting's tremendous power in policy deliberations.

Broadcasting is also very powerfully positioned economically. A significant amount of deliberation about broadcast law has drawn upon economic authority. For example, an

the First Amendment (Univ. of California Press, 1987) p. 5. On the other hand, the argument or the article's author (Bollinger) was not mentioned at all in an influential article that the reigning FCC chairman and his legal assistant published four years after Bollinger's article was published. See Fowler, Mark S. and Daniel L. Brenner, "A Marketplace Approach to Broadcast Regulation," 60 *Tex. L. Rev.* 207 (Feb. 1982).

²⁰ See also Logan, Charles W., "Getting Beyond Scarcity: A New Paradigm for Assessing the Constitutionality of Broadcast Regulation," 85 *Calif. L. Rev.* 1687 (Dec. 1997). Writing about twenty years after Bollinger, Logan notes that the scarcity justification for broadcast regulation has become unpersuasive and that there are ominous signs that the Supreme Court may re-examine whether broadcasting should be legally distinguished from print. He then offers new justifications to maintain the distinction. Note that such an argument is relatively complex and is probably more powerful in print than if offered in audio or video.

²¹ Democracy is so emotive of a word that some countries with political systems that might be judged, after even just a small period of consideration, to be totalitarian include the word "democratic" in their names; consider, for example, the former German Democratic Republic, which was known informally as East Germany. Education is also highly emotive. Most persons feel that education is very important, although discussions about curricula and standards are considered to be the epitome of tedium. Such discussions often attract only narrow attention and achieve few results. See Graff, Harvey J. *The Literacy Myth* (New York: Academic Press, 1979).

²² Fiss, Owen M., "The Censorship of Television," 93 *Nw. U. L. Rev.* (Summer, 1999) 1216, 1217. Fiss is Sterling Professor of Law, Yale University.

important proposal for communications policy put forward four principles. Two of these principles draw directly on the authority of economics:

[Principle:] As a matter of policy, government should foster access by speakers to media. ...access means the ability to reach any willing recipient by any speaker willing to pay the economic cost [omitted footnote defining economic cost in a standard way] of doing so (and does not mean that government must or should require others to subsidize the would-be communicator). ...

[Principle:] Government policies should foster diversity in the media marketplace. ...diversity is achieved when people are allowed to bid for any information or entertainment they desire – no censorship – and they receive what they seek, so long as they are willing to pay the economic costs of receiving it. That is, the diversity principle dictates that there be no artificial government-imposed barriers to transmission or reception of speech.²³

While the above principles might be interpreted as endorsing the extension of a vulgar kind of freedom widely experienced and cherished in some societies, the principles are also associated with economic authority. In economics, “cost” and “willingness to pay” are key terms in disciplined analysis.²⁴ The phrase “no artificial government-imposed barriers” can best be understood as an emphatically phrased conventional descriptor for a particular comparative setting in an economic model. Overall, the two principles above resonate with the terms and thrust of the First Fundamental Welfare Theorem of Economics, widely considered to be a key source of authority in economics.

Using terms of economic authority, broadcasting can be also contraposed to that authority in ways much more intricate, awe-inspiring, and powerful. One can consider the public goods aspects of media products, positive and negative externalities, the implications of collecting money only from advertisers, the conflict between advertisers’ and audiences’ interests, the malleability of preferences, the role of information problems, the significance of monopolistic competition, the impact of international trade, and “Ruinous Competition: Too Many Products, Too Much Fake Diversity.”²⁵ There is also “A Solution and New Problem: Price Discrimination.”²⁶ One scholar has cataloged, “...ten generic types of externalities that greatly affect whether a market production of media content will correspond to the content that would be produced if the audience got what it

²³ Krattenmaker, Thomas G., and Powe, L. A. Jr., “Converging First Amendment Principles for Converging Communications Media,” 104 *Yale L.J.* 1730, 1731. The other two principles are: “Editorial control over what is said and how it is said should be lodged in private, not governmental institutions;” and “Government is not permitted to sacrifice any of the three foregoing principles to further goals associated with either or both of the others. Where such sacrifice is not needed, however, government may extend the goals associated with any of those principles.” Section VI of this paper argues that government editorial control over government-generated information and content should play an important role in communications policy.

²⁴ “Consumer sovereignty” is also a term associated with economic authority. It tends to enter discussions of broadcast law along with the other terms mentioned. Like them, it is not a term that a large number of persons physically learn in the course of their daily lives; one learns what it means by studying economics texts. Hence this term, as well as the other terms from economic authority, has little significance to the question of whether persons should have the same sort of experience of freedom with respect to communication goods as they have with respect to many other goods.

²⁵ See Baker, Edwin C., “Giving the Audience What it Wants,” 58 *Ohio St. L.J.* 316-338.

²⁶ *Id.*, p. 344.

wanted when charged its real cost.”²⁷ Another scholar’s text supplies a list of eleven perceived problems and associates them with the proposition that “well-functioning television markets are inadequate.”²⁸ This same text also contains references to “the television market,” “the communications market,” “the emerging communications market,” “the broadcasting market,” “the media market,” and “the emerging media market.”²⁹ The complex analytical work necessary to sort out and evaluate the functioning of all these different configurations of markets is rather intimidating, and the effect is to induce deference to the associated general claim.

A recent text on television and the public interest illustrates well this economics of attention. The text starts with the following two sentences:

The communications revolution has thrown into question the value of imposing public interest obligations on television broadcasters. But the distinctive nature of this unusual market – with “winner-take-all” features, with viewers as a commodity, with pervasive externalities from private choices, and with market effects on preferences as well as the other way around – justifies a continuing role for government regulation in the public interest.³⁰

The second sentence presents as its subject “the distinctive nature of this unusual market.” Use of the word “market” economically invokes the authority of disciplined analysis and the readers’ personal representations of the *status quo* in communications, media, broadcasting, or television.³¹ The preceding adjectives “distinctive” and “unusual” help color the readers configuring of these representations. The second sentence dashes off jargon, economic terms, and complex interactions, and then releases intellectual tension in a familiar conclusion. Readers economically defer to economic authority, connect television to the need for government regulation, and conserve attention in dealing with the rest of the text.

Recent texts from influential sources in Europe also highlight the distinctive power of audio-visual media. This term encompasses all streaming pre-produced audio and video, but in deliberations it does not appear to be economically distinguishable from the terms broadcasting or television.

The European Commission wrote in March, 1999:

The socio-cultural impact of the audiovisual sector, in particular broadcasting, is without parallel. ...The audiovisual sector, for its part, combines economic,

²⁷ Id. p. 349.

²⁸ See Sunstein, Cass R., “Television and the Public Interest,” 88 *Calif. L. Rev.* 509.

²⁹ Id. *passim*.

³⁰ Id. p. 501.

³¹ Evaluating whether US Supreme Court Justice Oliver Wendall Holmes used “market” in this way in his famous “free” speech opinion in *Abrams v. United States* (1917) requires much more than a literal reading of his opinion and a formalistic understanding of markets. Cf. Sunstein, Cass R., *Democracy and the Problem of Free Speech* (New York: The Free Press, 1993) pp. 23-28. Neo-classical economics was not well developed at the time Holmes issued his opinion. Moreover, Holmes’s apparent post-modern perspective on truth (see *Id.* p. 26) differs strongly from the epistemological framework of neo-classical economics. For an important article on another metaphor that has been widely misconstrued, see Rothschild, Emma, “Adam Smith and the Invisible Hand,” *American Economic Review* 82(2), May 1994 pp. 319-22.

social, and cultural issues in a unique way. The socio-cultural impact of television, for example, is without parallel.³²

The European Parliament wrote in October, 1999:

Parliament also considers that television as referred to in the Directive Television without Frontiers [includes cable and satellite delivered television] will remain the principle medium of primary information provision and processing for the foreseeable future and that it is therefore of paramount importance in helping people in our pluralist societies to arrive at opinions and decisions and in the functioning of democracy, the preservation of cultural diversity and conveying social values, irrespective of the type of financing (charges, advertising, subscriptions, pay-per-view) and the method of transmission;³³

The Report of the High-level Group on Audiovisual Policy (October 1998) wrote:

...it is essential that the specificity of the [audiovisual] sector continues to be recognized....³⁴

The Seminar on Audiovisual Media and Authorities (November, 1998) wrote:

There was a consensus on the specificity of the audiovisual sector and the consequent need for regulatory measures which addressed this specificity....³⁵

A recent influential review of Europe's digital revolution put in print an unusually detailed and direct analysis:

The true rationale for broadcasting regulation lies in the uniquely influential role of a medium which helps form public opinion, provides a forum for public debate and discussion, and – in places where regulation has not intervened to prevent it – offers a unique source of commercial and political power for private media owners [reference omitted].³⁶

The pervasiveness and influence of such written texts provides compelling evidence of the distinctive power of audio-visual media. Some philosophically oriented persons may find it difficult to accept the truth that audio-visual media are especially powerful.³⁷ But

³² European Commission, Communication to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions, *The Convergence of the Telecommunications, Media and Information Technology Sectors, and the Implications for Regulation*, Results of the Public Consultation on the Green Paper [COM (1997)623], Brussels, 10 March 1999, COM(1999) 108 final, p. 1,5. Available on the web at <http://europa.eu.int/ISPO/convergencecp/>.

³³ Id. p. 11.

³⁴ Id. p. 22 (Annex 2).

³⁵ Id. p. 23 (Annex 2).

³⁶ Levy, David A. L., *Europe's Digital Revolution: Broadcasting regulation, the EU and the nation state* (London: Routledge, 1999), p. 144.

³⁷ For example, Mark S. Nadel, "A Technology Transparent Theory of the First Amendment and Access to Communications Media" *Federal Communications Law Journal*, Vol. 43, No. 2 (April 1991) pp. 157-184 presents a carefully reasoned philosophical approach emphasizing conventional economic analysis. Unfortunately such an approach is unlikely to win much substantive interest or have any effect. Much philosophical thought has an insufficiently rich perspective on the relationship between truth and word, action, and person. See Matthew Stewart's learned, magisterial review of the intellectual history of

facts should be recognized: the issue has been extensively deliberated for over thirty years in the US and the power of audio-visual media has been repeatedly affirmed. The same conclusion has been emerging more recently in the much different institutional and historical setting of Europe. Further deliberations in this area might seek to emulate recent successes in theology, such as the Lutheran-Catholic statement on justification or Pope Paul II's actions and statements in Jerusalem.³⁸ Nonetheless, the above analysis of the economics of human attention indicates that prospects for similar successes in broadcasting law – deliberation clarifying and changing policy positions – are rather low.

III. Time with Media in Everyday Life

How a population allocates its time deserves more consideration from business persons, policy-analysts, and policy-makers. Time is widely thought to be an important empirical measure of attention.³⁹ The quality of politics, and the fortunes of particular politicians, depends significantly on the extent of public attention. For businesses, attention is a prerequisite for a sale. From a macroeconomic perspective, services are growing in importance. Services are often denominated in time, and the consumption of services is typically much more time dependent than the consumption of goods. Time may be more important than money.

Adults in high-income countries have gained significant additional discretionary time over the past seventy-five years. Discretionary time is time remaining after time spent on paid work, family care, personal care (sleeping, eating, hygiene, and grooming), and associated travel. Methodologically sophisticated time budget surveys in the US show that average discretionary time for persons ages 18-64 rose from 34.8 hours per week in 1965 to 41.0 hours per week in 1995.⁴⁰ Based on more fragmentary evidence, discretionary time for a male household head rose 220% in the US from 1880 to 1995.⁴¹ These trends, along with other data, indicate that in the mid-1920s adults in the US probably had about 26 hours of discretionary time per week.⁴² Thus over seventy years

philosophy, particularly his discussion of Sophists. Stewart, Matthew, *The truth about everything* (Amherst, N.Y.: Prometheus Books, 1997).

³⁸ On the former, see <http://lutheranworld.org/SpecialEvents/Justification/Welcome.EN.html>. On the latter, see, for example, Speech of Pope John Paul II, Visit to the Yad Vashem Museum (23 March 2000), on the web at http://www.vatican.va/holy_father/john_paul_ii/travels/documents/hf_jp-ii_spe_20000323_yad-vashem-mausoleum_en.html

³⁹ E.g., among lovers, lawyers, and lobbyists.

⁴⁰ Robinson, John P. and Geoffrey Godbey, *Time for life: the surprising ways Americans use their time*, 2nd ed., (University Park, PA: Pennsylvania State University Press, 1999), p. 339. Holding demographic factors constant, discretionary time rose about an additional three quarters of an hour.

⁴¹ Fogel, Robert William, *The Fourth Great Awakening and the Future of Egalitarianism* (Chicago and London: Univ. of Chicago Press, 2000), p. 184. Discretionary time is projected to rise 24% from 1995 to 2040. *Id.*

⁴² An noted *infra*, discretionary time grew 220% in the US from 1880 to 1995, and about 18% from 1965 to 1995. These trends suggest about 22 hours of discretionary time in 1925. However, discretionary time probably grew significantly faster from 1880 to 1925 than from 1925 to 1965. Weekly hours of paid work fell about 11 hours from 1880 to 1925, as compared to a reduction of about 5.5 hours from 1925 to 1965. See *Historical Statistics of the United States*, series D-627, D-589, D-593, and D-573. Other evidence suggests that hours of housework did not fall significantly from the 1920s to the early 1960s (Robinson, p.

discretionary time of US adults increased from about 26 hours per week to 41 hours per week. Discretionary time probably increased even more significantly in countries, such as those in Europe, that currently have lower average hours worked per year than the US.⁴³

A. Media Use Prior to Radio and Television

The media environment and time spent with media were much different about 1925 than now. Television did not exist in 1925; black and white television sets started to appear in a significant number of consumers' homes only about 1948. In the US and the UK, which pioneered household radio, only about 1% of households had radios in 1923, with that figure rising to 20% in 1926.⁴⁴ Silent movies and audio recordings were the only non-print media just before the growth of radio. US movie theatre attendance in 1925 averaged about one attendance every two weeks, or an average of about 50 minutes per week.⁴⁵ Expenditure on musical recordings was about one-fourth of expenditure on movies.⁴⁶ Thus in the US about 1925 non-print media probably occupied only an hour of an adult's discretionary time per week.

The scholarly literature on the growth and spread of newspapers tends to emphasize the enthusiasm of readers. A leading US social history invokes images of starvation and the distribution of necessities: as the mass press spread into the countryside farmers "who never before had a chance to receive a daily ration of fresh news from the city, gorged themselves with two or even three daily papers...."⁴⁷ In 1925 US daily newspaper circulation amounted to 1.2 newspapers per household.⁴⁸ Scholars have noted and lamented the subsequent sharp decline, with newspapers per household falling to 0.6 in 1998.⁴⁹ Before the advent of radio and television, did the average person spend more time reading news, or at least reading newspapers?⁵⁰ What about reading in general in the era before radio and television?

49-51, Bowden, Sue, and Avner Offer, "Household appliances and the use of time: the United States and Britain since the 1920s," *Economic History Review*, XLVII 4(1994), pp. 733-734).

⁴³ The average workyear in the mid-1990s in France, German, and Sweden was 5%, 8%, and 19% less, respectively, than in the US Fogel, p. 186.

⁴⁴ Bowden and Offer, Table 1, p. 729.

⁴⁵ *Historical Statistics*, Series A-119 to A-122, H-873. Two popular films in 1925 were "The Gold Rush" (75 minutes long) and "The Big Parade" (140 minutes long).

⁴⁶ *Historical Statistics*, Series H-884, and "Recording Technology History", <http://history.acusd.edu/gen/recording/notes.html>, Section on New Popular Music.

⁴⁷ Boorstin, Daniel, *The Americans: The Democratic Experiment* (New York: Random House, 1973), pp. 135-136.

⁴⁸ *Historical Statistics*, Series R-176, and *Statistical Abstract of the US*, Table No. 1419.

⁴⁹ *Statistical Abstract*, Table No. 1419, No. 1440. Putnam, Robert, *Bowling Alone* (NY: Simon & Schuster, 2000) p. 218.

⁵⁰ A study in the mid-1920s of what parts of newspapers readers actually read found that the most popular subjects were sports and cartoons. See Gray, William S., and Ruth Monroe, *The Reading Interests and Habits of Adults* (New York: Macmillan Co., 1929) p. 43-44. Educational scholars at the time expressed concern about the relatively rapid growth of tabloids and low quality reading material. See Gray and Monroe, pp. 11, 39-68.

Circumstantial evidence suggests that the growth of radio and television has not dramatically affected discretionary time allocated to reading. Among the highest income countries (OECD members), newspaper circulation per person shows no overall trend from 1950 to 1996.⁵¹ Moreover, in contrast to newspaper circulation, magazine circulation in the US shows a dramatic rise from 0.5 magazines per person in 1922 to 1.9 magazines per person in 1998.⁵² A US study in the mid-1920s found that popular weeklies, such as the *Saturday Evening Post* and *Literary Digest*, were retained for about six months on average.⁵³ This suggests that in the mid-1920s magazine reading was not a structured habit that kept up with the pace of periodical publication. Book reading is the most difficult type of reading to assess empirically. Based on *Publishers Weekly's* count of new books and editions, the number of new books and editions published in the US rose from 0.1 per thousand persons in 1925 to 0.3 per thousand persons in 1997.⁵⁴

Direct evidence on reading time in the mid-1920s suggests that the average adult in the US spent 23% of discretionary time reading, with newspaper reading amounting to about 10% of discretionary time. According to an academic leader in the movement to provide a scientific, factual foundation for advertising, the average reader in 1925 spent 15 minutes per day reading the newspaper. Surveys that this scholar conducted and reviewed support that conclusion, as did an earlier survey.⁵⁵ In contrast, scholars

⁵¹ Norris, Pippa, *A Virtuous Circle: Political Communications in Post-Industrial Societies* (NY: Cambridge University Press, 2000) Chapter 4. Draft available on the web at <http://www.pippanorris.com>.

⁵² Figures are for persons ages 15 and older. Magazine circulation for 1922 is from Ayre's *Newspaper Annual and Directory*, as presented in Reeder, Ward G., "Amount and Kind of Reading in the Various States," *Educational Research Bulletin* Vol. 3 (April 30, 1924) p. 179. Magazine circulation for 1998 includes subscription and single copies for ABC and BPA audited titles. See Magazine Publishers of America, on the web at http://www.magazine.org/resources/fact_sheets/cs1_9_00.html.

⁵³ Based on 716 weeklies received at a junk dealers establishment in Cleveland in 1925. Weeklies received that were published prior to 1924 were excluded from the calculation on the grounds that their "active life" had passed. R.O. Eastman study, described in White, Percival, *Advertising Research* (New York: D. Appleton and Company, 1927) pp. 302-305.

⁵⁴ Figures are for persons ages 15 and older. The count of new books and editions is from Peters, Jean, "Book Industry Statistics from the R.R. Bowker Company," *Publishing Research Quarterly* (Fall 1992) p. 18, and *Statistical Abstract*, Table 938. Alternative sources indicate that the Publishers' Weekly count underestimated the number of new titles in 1990 by more than 50%. See Dessauer, John P., "The Growing Gap in Book Industry Statistics," *Publishing Research Quarterly* (Summer 1993) pp. 68-71.

⁵⁵ Franken, Richard B., *The Attention-Value of Newspaper Advertisements* (The Association of National Advertisers, 1925), p. 12. Several years earlier, this scholar, in conjunction with another leading academic scholar of advertising, surveyed New York City business executives and professional men in order to gain facts about reading habits. Among a wide variety of results about different aspects of newspaper readership, the survey indicated that 65% of the survey respondents read "a newspaper" about 15 minutes or less. Hotchkiss, George Burton, and Richard B. Franken, *Newspaper Reading Habits of Business Executives and Professional Men in New York* (New York University, Bureau of Business Research, 1922), Table 8. Surveys were mailed to 2000 persons, of which 599 (30.2%) responded. Hotchkiss and Franken clearly use 15 minutes as a measure of total reading time, and their methodological sophistication suggests that they would not be confused by the fact, measured in their survey, that persons often read more than one newspaper. On the other hand, some respondents may have been confused. Note that this figure is for a group associated with high income, high status, and high education, and each person on average read 2.80 papers. Comparing this group to other groups for which surveys had been conducted, Hotchkiss and Franken noted, "It appears that the business and professional men of New York spend on the average a larger amount of time in reading papers than is spent by the average college student. In fact, the amount of time is greater than has been shown by similar groups in other cities where such investigations have been

associated with libraries and educational organizations found, in surveys focused on reading habits and materials, much greater reading times. Personal interviews with 314 adults in Chicago in the early 1920s elicited reading times that averaged 28, 24, and 41 minutes per day for books, magazines, and newspapers, respectively. The interests of the interviewer, the narrow scope and personal nature of the interview, and the socio-economic status associated with reading created significant potential for over-reporting; reported counts of reading material suggest that reading may have exaggerated by a factor of two or more.⁵⁶ Evidence from general time budget studies in the early and mid 1930s suggests that persons read newspapers about 20-25 minutes per day, or about two and a half hours per week.⁵⁷ Total reading time per adult in the mid-1920s probably averaged about six hours per week.

B. Radio and Television Time in the late 1990s

In most countries over the past seventy-five years, television has dramatically reshaped use of discretionary time. In the US, knowledgeable observers have linked current television use to a figure of 7 hours per day, which implies 49 hours per week.⁵⁸ This

made.” Id. p. 5. A survey of 2300 “prominent business and professional men” in Chicago about 1910 found that about 15 minutes per day was the amount of time spent reading all newspapers. See Scott, Walter Dill, *The Psychology of Advertising* (Boston: Small, Maynard, & Co, 1913) Chapter 16, esp. pp. 232-233.

⁵⁶ See Gray, William S., and Ruth Monroe, *The Reading Interests and Habits of Adults* (New York: Macmillan Co., 1929) pp. 28-29. The reported number of books read per year was 11.4 for men and 20 for women. Data from another study in the mid-1920s indicated that men read about 2.5 books per year and women 4 books per year. Id. p. 31. The percent of women who read magazines (81%) also appears high. In interviews with 1,790 families in Cleveland in 1942, 55% of housewives possessed and claimed readership of a magazine. See Paul W. Stewart and Ass., *A Study of the Market Characteristics and the Magazine Reading Habits of Cleveland Housewives* (Neward: Family Circle Inc., 1942) p. 52. The number of newspapers and magazines read also appears high relative to the national averages cited *infra* above. Surveys of college students at University of Chicago and University of Rochester in the mid-1920s found 2-3 hours per week for reading of “serious books and magazines not directly connected with their university courses.” Gray and Monroe, p. 73.

⁵⁷ In a suburban area outside of New York City, 365 male executives, professionals, and other white collar workers average 64 minutes of reading per day in time budgets during 1931-33. Many of these respondents rode a commuter train to New York City, which may have encouraged reading. See Robinson, John, “Social Change Reflected in Use of Time,” in Angus Campbell and Philip E. Converse eds., *The human meaning of social change* (New York: Russell Sage Press, 1972) pp. 38-39, 73-79, citing Lundberg, G.A., Mirra Komarowsky, and Mary McNerny, *Leisure: A Suburban Study* (New York, 1934). A time budget study for 176 young adults in Boston in 1935 showed 29 minutes per day for reading newspapers and magazines and total reading time of 51 minutes. See Robinson, op. cit., p. 39, 80-81, analyzing Sorokin, P.A. and C.Q. Berger, *Time Budgets of Human Behavior* (Cambridge, MA, 1939). Other data suggest that newspaper reading amounted to about 40% of total reading and 70% of reading of newspapers and magazines. See above, Robinson, op. cit., p. 41, and Robinson, *Time for Life*, p. 140.

⁵⁸ “The average American still spends *seven hours per day* watching television, but only *eight hours a month* online.” Italicization was included in the original text. Statement of FCC Chairman William E. Kennard, *In the Matter of 1998 Biennial Regulatory Review – Review of the Commission’s Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act*, MM Docket 98-35 (released June 20,2000) p. 67 [available on line at http://www.fcc.gov/Bureaus/Mass_Media/Orders/2000/fcc00191.pdf]. “The average home has its television going for almost seven hours each day. ...Beyond noting the undeniable fact that too many people watch too much television, it is hard to know what to make of these statistics.” Krattenmaker and

figure effectively conveys the awesome amount of television viewing time, but otherwise has little relevance. Table 1 provides, using data from television rating services, average weekly television viewing time for adults in OECD countries in 1998.⁵⁹ Viewing time ranges from 17 hours per week in Austria and Sweden to 30 hours per week in Mexico. Based on ratings data, US television viewing time per person is 28-30 hours per week. Television viewing times per person are much less than the occasionally quoted figure of 49 hours of television per week, but they are large relative to a typical adults' amount of discretionary time.

In collections of industry statistics on media usage, time allocated to radio and television is far larger than time allocated to other media. Table 2 provides data, from the *Statistical Abstract of the United States*, on US media usage for a variety of media in 1998. The time associated with daily newspapers is only 10% of television usage time and 15% of radio time. The usage times associated with radio and television are more than four times greater than the time associated with the next most intensively used medium.

Table 1			
Television Viewing Based on Ratings Data			
(hours per person per week, 1998)			
Country	Hours	Country	Hours
Australia	23	South Korea	19
Austria	17	Mexico	30
Belgium	21	Netherlands	19
Canada	22	New Zealand	20
Czech Rep	24	Norway	18
Denmark	19	Poland	24
Finland	18	Portugal	18
France	23	Spain	25
Germany	22	Sweden	17
Greece	26	Switzerland	19
Hungary	27	Turkey	27
Ireland	23	UK	27
Italy	25	USA	28
Japan	29		

Powe, *Regulating Broadcast Programming*, pp. 222-223. This statement provides an accurate description of the statistic. It also perceptively indicates the typically long, wide path from the statistic to the conclusion (“too many people watch too much television”).

⁵⁹ See Norris, Table 5.2. Data is from Media Metrie, a Paris-based media ratings and consulting firm.

Table 2 Media Use In the US Based on Industry Sources (hours per week per person in 1998)	
Type of Consumer Media	Hours
Television	30.3
Radio	20.2
recorded music	5.5
daily newspapers	3.0
consumer books	1.8
consumer magazines	1.6
home commercial video	1.1
movies in theatres	0.3
home video games	0.8
consumer online Internet	1.4

A deeper understanding of the data in Tables 1 and 2 requires additional analysis. In economics a basic analytical move is to trace the implications of a budget constraint. Time budget studies indicate that the average person in the US had about 41 hours of discretionary time in 1995. The total number of hours listed in Table 2 is 65.9. Since Table 2 does not include media usage during work time, a significant amount of usage given in Table 2 must be occurring simultaneously. In the mid-1920s media usage accounted for about 27% of discretionary time. Suppose that in 1998 media usage accounted for 50% of discretionary time (as defined and discussed subsequently, this in fact appears to be the case). Then about 70% of media use given in Table 2 must have been in conjunction with some other discretionary activity.

An analysis of Tables 1 and 2 should also include an analysis of sources and methods used to compile the data. The US Census Bureau published the data in Table 2, which it takes from Veronis, Suhler & Associates' *Communications Industry Forecast*. Veronis, Suhler & Associates describes itself as "the leading independent merchant bank solely dedicated to the media, communications and information industries."⁶⁰ Media usage for radio and television are based on commercial rating data, while the other data are based on survey research and consumer purchase data. A wide variety of industry organizations apparently collected the data. No information is provided on survey methodology, response rates, sample sizes, etc.

Veronis, Suhler & Associates' television viewing data can be traced to Nielson Media Research, which is a firm similar to that which produced the data in Table 1. Nielsen

⁶⁰ See <http://www.veronissuhler.com/careers/index.html> .

Media Research's website provides some information about its sample and methodology.⁶¹ It also describes an important use of its data:

Nielsen Media Research ratings are used like currency in the marketplace of advertiser-supported TV. When advertisers want a commercial to reach an audience, they need to place it in TV programs which deliver an audience. The more audience a program delivers, the more the commercial time is worth to advertisers. So the amount charged for advertising is usually a negotiated rate per thousand viewers multiplied by the Nielsen Media Research audience estimate (in thousands).⁶²

One critic of Nielsen's rating data recently stated, "The numbers are paid for largely by the TV networks, stations, and syndicators that sell the airtime..." and she noted that industry participants are trying to organize a rival rating service.⁶³ The commercially and politically contentious nature of the service that Nielsen and other rating companies provide is underscored by interest in these statistics at the highest political levels: the US Congress directed investigations of television ratings in 1960-1961 and the US House Commerce Committee held hearings on television ratings in 1963-1964.⁶⁴

For the purposes of the discussion here, comprehensive time budget scholarship provides better evidence on media usage. This scholarship has focused on scientific analysis and remained relatively separate from commercial and political concerns.⁶⁵ It takes a comprehensive approach to time usage, ensuring methodological consistency among times allocated to different activities. Time budget methodology recognizes that activities, such as media use, may occur simultaneously, and it addresses the dimension of attention by allowing respondents to associate a "primary" and "secondary" activity with any block of time.

Analyzing time use raises difficult and complex issues. Time budget scholarship has drawn collaboratively upon a wide range of international experience, including Soviet experience dating back to time budget studies carried out in the mid-1920s. Methodological issues have been extensively discussed and documented, and a large amount of data has been placed in the public domain for wide-ranging scrutiny.⁶⁶ This approach to investigation and analysis gives time budget scholarship considerable scientific credibility.

⁶¹ See <http://www.nielsenmedia.com/>, select from the index on the left "Who We Are and What We Do" and "What TV Ratings Really Mean."

⁶² Id. "What TV Ratings Really Mean," p. 8 on printout.

⁶³ Jensen, Elizabeth, "Meet the Nielsens," *Brills Content*, March 1999 [on the web at <http://www.brillcontent.com/1999mar/features/nielsens.shtml>].

⁶⁴ See Sterling, Christopher H. and John M. Kittross, *Stay Tuned, A Concise History of American Broadcasting* (Belmont, CA: Wadsworth Publishing Co., 1978), pp. 418-9.

⁶⁵ The Multinational Time-Budget Research Project was an early and prominent example of collaboration in empirical social research among scholars in capitalist and socialist countries. See Szalai, Alexander, *The Use of Time, Daily activities of urban and suburban populations in twelve countries* (The Hague: Mouton, 1972).

⁶⁶ Szalai, Alexander, "Introduction: Concepts and practices of time-budget research," in Id.

Time budget studies show that television as a primary activity uses 20-40% of discretionary time, while radio listening is primarily a secondary activity. Table 3 shows television viewing times based on methodologically consistent studies across twelve countries in 1965.⁶⁷ Television viewing times center around 10 hours per week and account for about 30% of discretionary time. US time budget studies show television viewing time increased about 50% from 1965 to 1995.⁶⁸ If television viewing times for most countries increased about that amount through 1998, then the ratings-based viewing times in Table 1 are slightly less than twice the times suggested from time budget studies. Radio listening times from time budget studies are more than ten times lower than those from ratings data. Such differences clearly are not measurement errors; time budget studies and ratings data use different attention thresholds in measuring media usage. This difference highlights the importance of considering attention in analyzing media usage.

Location	TV Hours	Discret. Time	TV %
Bulgaria (Kazanlik)	6	27	21%
USSR (Pskov)	8	29	28%
Yugoslavia (Kragujevac & Maribor)	10	31	31%
Hungary (Gyor)	10	23	41%
Peru (Lima)	10	36	27%
France (6 cities)	10	29	33%
Germany-West (ave. nat.)	10	32	32%
German-East	11	27	39%
US (ave. national)	11	35	31%
Poland (Torun)	12	31	39%
Czech Rep (Olomouc)	12	28	44%
Belgium (national)	13	35	37%

C. The Boring Story

A large amount of discretionary time is allocated to television in widely varying economic, cultural, and programming environments. While there are differences in television viewing times across countries, on average persons with a television spend a large fraction of their discretionary time watching television. This rough empirical

⁶⁷ Robinson, John P. and Philip E. Converse, "The impact of television on mass media usage," in Szalai, Table 4, p. 28. Viewing times in each country are average for persons owning a television set.

⁶⁸ See Table 4 below.

regularity suggests that the attraction of television as a use of time is largely a characteristic of the medium-apparatus itself and very general patterns of human activity.

The contrast between the US and the USSR in the mid-1980s highlights the attraction of television. In the mid-1980s television programming and broadcasting in the USSR was state-owned, state-controlled, and highly centralized.⁶⁹ Households had little opportunity to choose between programs. In the USSR in the mid-1980s, 68% of households received two or fewer program channels.⁷⁰ In contrast, television in the US in the mid-1980s was privately owned and commercially driven, and television offered viewers many programming choices. In the US in the mid-1980s, 88% of households received five or more over-the-air television signals, while cable systems, with median capacity of over 30 channels, passed 76% of households.⁷¹

Despite these and other sharp contrasts between the US and the USSR, the television set, the way television was watched, and time spent watching television were remarkably similar. In both the US and the USSR the average viewer sat on a couch and watched a rectangular colored screen about two meters away.⁷² In the US in 1985 television viewing times for employed men and women were 14.6 and 12.1 hours per week respectively.⁷³ In Pskov, USSR in 1986, television viewing times for employed men and women were 14.5 and 10.7 hours per week respectively.⁷⁴ One might debate whether television programming in the USSR was better or worse than that in the US. Clearly it was much different. There were also many fewer choices available for viewers, who lived in much differently ordered societies. Rather than speculating about differences in the quality of programming or the quality of the audience, a simple explanation for these facts is that television programming content has not strongly shaped the physical characteristics of viewing or the amount of viewing time.⁷⁵

Growth in discretionary time is closely related to growth in media use. Table 4 shows trends in media use and discretionary time in the US from about 1925 to 1995. The share of discretionary time allocated to media grew from about 25% in 1925 to about 50% in

⁶⁹ Campbell, Robert W., *Soviet and Post-Soviet Telecommunications* (Boulder, Co: Westview Press, 1995), Chapter 7.

⁷⁰ Id. p. 147.

⁷¹ Setzer, Florence, and Jonathan Levy, *Broadcast Television in a Multichannel Marketplace*, FCC Office of Plans and Policy Working Paper Series #26 (June 1991) Table 4, p. 18; Table 15, p. 68.

⁷² Housing arrangements were much different in the US and the USSR. The much higher ratio of residents to rooms in the USSR meant that the couch from which USSR residents watched television typically also served as a bed where the residents slept at night.

⁷³ Robinson and Godbey, Table 9, p. 145.

⁷⁴ Robinson, John P., Vladimir G. Andreyenko, and Vasily D. Patrushev, *The Rhythm of Everyday Life* (Boulder, Co: Westview Press, 1989) Table 5.3, p. 93. Other estimates from other cities in the USSR in the early 1980s are somewhat lower. For Kerchi in 1982, average television viewing time for men and women was 13.7 and 11.5 hours per week respectively. See Patrushev, V.D., "Svobodnoe Vremja Gorodskogo Naselenija: Prodolzhitel'nost, Mesta I Sotsialnoe Okruzhenie ego Provedenija," in *Robochee I Svobodnoe Vremja* (Moscow, 1987), p. 22.

⁷⁵ More narrowly focused communications research has shown that television viewing time depends significantly on daily habits and rituals not closely related to programming content. See e.g. Rubin, A.M., "Ritualized and Instrumental Television Viewing," *Journal of Communication* v. 34 n. 3 (1984) pp. 67-77; Jeffres, L.W., "Cable TV and Viewer Selectivity," *Journal of Broadcasting* 22 (1978) pp. 167-177.

1995. But the power of the new media on ordinary persons' time has operated in a particular way. Note that time spent reading newspapers did not change significantly between 1925 and 1965, and discretionary time allocated to non-media activities has changed little between 1925 and 1995.⁷⁶ Most of the increase in media usage since 1925, in particular television viewing, is accounted for by increases in discretionary time.⁷⁷ Historically, the growth in time spent with television has largely come from growth in discretionary time.⁷⁸

Table 4			
US Trends in Media Use			
Based on Time Studies			
(hours per week as primary activity)			
Time Use	Year		
	c. 1925	1965	1995
Reading	6	4	3
Newspapers	2.5	2.5	0.8
Television	0	10	16
Other Media	1	1	1
Total Discret. Time	26	35	41
media time	7	15	20
non-media time	19	20	21

IV. Macro-Economics of Attention Seeking

Scholars, analysts, and publishers have long been concerned with how to effectively attract and sustain attention. Joseph Pulitzer, a major early US newspaper publisher, put the most important story on the right column of the front page of his newspaper,

⁷⁶ In an impressive body of work, Robert Putnam has documented and explored a decline in civic participation and social connectedness (“social capital”) since the 1950s and 1960s. He argues that television watching has been a major cause of the decline in social capital. Table 4 shows that there has not been a decline in discretionary time spent in activities other than media usage. Hence the effect of television must not be primarily via time displacement. For evidence of other types of television effects, see Cambell, David E., Steven J. Yonish, and Robert D. Putnam, “The American Viewer: The Multifaceted Relationship Between Television and Civic Engagement,” Paper presented at the 1999 Annual Meeting of the American Political Science Association, available on the web at <http://www.people.fas.harvard.edu/~dcampbel/papers.htm>.

⁷⁷ In the US from 1925 to 1995, time spent reading fell about 2 hours, television viewing grew to 16 hours, and discretionary time grew by 15 hours. While these facts have been established only for the US, trends in time use in other developed countries are probably similar.

⁷⁸ Radio’s place in the allocation of discretionary time is more complex than that of television. In time budget surveys, radio listening is primarily reported as a secondary activity. The development of radio expanded the possibilities for secondary activity, i.e. listening to the radio while driving by oneself. This is a different dimension of effective growth in discretionary time.

reversing earlier practice of placing the latest news on the inside pages.⁷⁹ Early in the twentieth century scholars carried out laboratory experiments in which small pointers were attached, using minute ivory or plaster cups, to a reader's cornea in order to track reading behavior.⁸⁰ Other scholars in the late 1930s, using a contrasting "soft science" approach, conducted extensive interview-based studies of what parts of newspapers and magazines attracted readers' attention.⁸¹

The search for empirical regularities in attracting attention has focused on narrow results. For example, a study of agricultural magazine readers found:

...regular readers showed more interest in covers that put farmers in the foreground, hogs in the background, than the reverse. On the other hand, new readers were better attracted by covers on which hogs loomed larger than farmers.⁸²

A study of different advertising media in the US in the early 1920s found that street car advertising was noticed frequently (see Table 5), despite street car advertising spending probably amounted to less than 1% of total advertising spending.⁸³ More recently, the US Television Bureau of Advertising presented statistics indicating that, among different media advertising, the public perceives television advertising to be by far "most authoritative," "most exciting," "most influential," and "most persuasive."⁸⁴ On the other hand, a large joint research project by the Internet Advertising Bureau and Millward Brown Interactive found that a representative online (web) banner advertisement, as well as a print advertisement, had a larger brand-linked impact on viewers than did a representative television advertisement.⁸⁵

While many studies address particular concerns, the economics of attention in the aggregate, over a long period of time, deserves more consideration. Aggregation can highlight statistical regularities; for example, whether a particular boy will attract the attention of a particular girl may be hard to judge, but that boys will attract girls' attention is a clear empirical phenomenon. Taking a long-term view helps provide environmental variation to identify behavioral regularities. In particular, development and wide dissemination of radio and television sets has provided many new stages for

⁷⁹ Leonard, Thomas C., *News for all: America's coming-of-age with the press* (New York: Oxford University Press, 1995) p. 132; pp. 132-146 provide a fascinating historical review of investigations into what readers read.

⁸⁰ Huey, Edmund Burke, *The psychology and pedagogy of reading* (Cambridge, MA: MIT Press, 1968 [New York: Macmillan, 1908]).

⁸¹ Advertising Research Foundation, *The continuing study of newspaper reading* (NY: Foundation of the Association of National Advertisers and American Association of Advertising Agencies, 1939-1951); Magazine Audience Group, *Continuing study of magazine audiences* (Chicago: Life, 1938).

⁸² Cited in Leonard, p. 133.

⁸³ Table 5 is from Fig. 100 in White, *Advertising Research*, p. 290. Borden, Neil H., *The Economic Effects of Advertising* (Chicago: Richard D. Irwin, 1942) p. 54, estimated streetcar advertising spending as 0.8% of total advertising spending in 1935.

⁸⁴ From the Television Bureau of Advertising web site [<http://www.tvb.org/tvfacts/tvbasics/basics24.html>]. Source lists is "TVB/THE MEDIA CENTER Bruskin/Audits & Surveys, Jan. 200, Adults 18+."

⁸⁵ *1997 IAB online advertising effectiveness study* (Internet Advertising Bureau, 1997), available on the web at <http://www.mbinteractive.com/site/iab/study.html>. Current sentiment in the trade press runs strongly against the effectiveness of banner ads.

attracting attention. Understanding how a population has reacted to these changes provides important insight into the economics of attention.

Type of Ad	San Francisco, Milwaukee, Chicago			Los Angeles, Minneapolis	
Street cars	30.6%	30.5%	33.3%	23.9%	25.7%
Newspapers	26.9%	29.1%	23.2%	37.9%	35.3%
Magazines	12.8%	16.8%	17.2%	13.9%	19.6%
Posters	14.4%	6.8%	6.7%	8.1%	8.1%
Electric signs	8.9%	11.6%	13.8%	11.5%	6.8%
Painted bulletins	3.4%	2.9%	3.4%	3.3%	3.2%
Signs on buildings	1.5%	1.7%	1.6%	0.9%	0.7%
Theater programs	1.5%	0.7%	0.8%	0.6%	0.6%

A. Advertising's Share of the Economy: Constant Long-Term

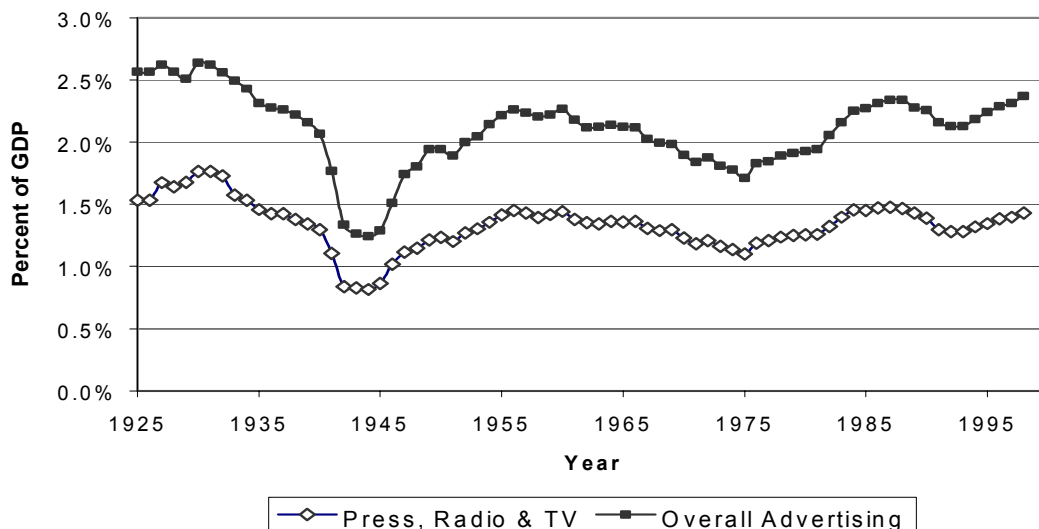
While the historical development of radio and television has created new tools for attracting attention, total advertising spending as share of the economy has been constant long-term. Chart 1 shows US advertising spending, including direct mail advertising, as a share of the economy's overall output (GDP) from 1925 to 1999.⁸⁶ The advertising share dropped sharply, and not surprisingly, during World War II, and experienced a dip in the late sixties and early seventies. There is no evidence of a long-term upward trend. As Table 6 shows, overall US advertising spending as a share of GDP was 2.6% in 1925 and 2.4% in 1998. Similarly, UK advertising spending as a share of GDP is roughly horizontal in the long run, with a somewhat greater reduction associated with World War II.⁸⁷ UK advertising as a share of GDP was 1.7% in 1924 and in 1998.⁸⁸ The advent of

⁸⁶ The US Census Bureau has published figures for the total volume of advertising 1867 to 1970. See *Historical Statistics*, Series T 444-471. These statistics represent the work of Robert J. Coen of McCann-Erickson Worldwide. He has made subsequent figures available on the web and in *Advertising Age*. See <http://www.mccann.com/html/coenreport.html>. The advertising statistics prior to 1935 have been subject to considerable criticism and revision. See Pope, Daniel, *The Making of Modern Advertising* (New York: Basic Books, 1983) pp. 21-28 and Simon, Julian L., *Issues in the Economics of Advertising* (Urbana: University of Illinois Press, 1970) pp. 187-8 and Table 7.3. I have used Coen's figures from 1935 (including direct mail) and Borden's figure for 1925 (op. cit. p. 48 (Table 1) and p. 57 (Table 3)).

⁸⁷ Looking at advertising spending shares from 1948 to 1999 (*Advertising Statistics Yearbook 2000*, Table 2.1) is misleading because World War II depressed advertising spending significantly.

⁸⁸ UK advertising spending data for 1925, 1938, and 1952 are from Silverman, Rodney, *Advertising Expenditure 1952* p. 1, p 24 (Table 6). The 1925 figures represent informed estimates. The 1998 data are from the Advertising Association. See <http://www.adasoc.org.uk/inform/stats.html>.

Chart 1: U.S. Advertising Spending as Share of Output



radio and television does not appear to have influenced total spending on advertising relative to over-all economic activity.⁸⁹

Location/Type	Year			
	1925	1938	1952	1998
UK				
Press	1.2%	1.0%	0.7%	0.9%
Radio & television	0.0%	0.0%	0.0%	0.5%
Other	0.5%	0.5%	0.3%	0.3%
Total	1.7%	1.5%	1.0%	1.7%
US				
Press	1.5%	1.2%	1.0%	0.7%
Radio & television	0.0%	0.2%	0.3%	0.7%
Other	1.0%	0.9%	0.7%	0.9%
Total	2.6%	2.2%	2.0%	2.4%

⁸⁹ Members of the advertising profession and scholars of advertising in the US have struggled with these facts since the late 1950s. David M. Blank, the Director of Economic Analysis for CBS, a major US television network, noted in 1963 that certain early advertising figures were overstated. He argued that a better understanding of the facts and of the factors that affect advertising indicated that advertising would continue to rise in relative importance. See Blank, David M., "A Note on the Golden Age of Advertising," *Journal of Business*, vol. 36 (Jan. 1963) pp. 33-38. A thorough study published in 1970 reached a similar, although somewhat more tentatively expressed, conclusion. See Simon, pp. 187-192. Simon shows (pp. 167-187) that, looking across countries will huge difference in per capita income (from Pakistan to Sweden), advertising's share in GDP tends to rise with per capita GDP. This is an aspect of economic development not captured in US and UK trends from 1925 to 1998. UK observers have also noted the long-term constancy of UK advertising relative to the size of the UK economy. See Halstead, Sir Ronald, "The Effect of Television on Marketing," p. 410-11 in Brian Henry, ed., *British Television Advertising: the first 30 years* (London: Century Benham, 1986).

The large differences in the development of commercial radio and television in the UK compared to the US have produced only subtle changes in aggregate advertising spending. Despite much stronger focus in the UK on public broadcasting and much slower development of private broadcasting, in both the US and the UK radio and television advertising amounts to about 30% of total advertising. In the US the advent of radio and television shifted about half of the print advertising share to these new media. In the UK the growth in radio and television advertising came about equally from the shares of print and other media. Overall, print, radio, and television advertising in the US and UK amount to about the same shares of GDP. The most dramatic differences between the US and the UK are the much greater significance in the US of direct mail advertising, directory advertising, and other media. These differences existed before 1938, and hence they are probably not a feature of the growth of radio and television.

B. Real Advertising Spending Per Media Hour: Constant Long-Term

The growth of radio and television has not significantly changed real advertising spending per media hour. Advertising is typically purchased in terms related to persons reached and extent of exposure. Table 7 provides this sort of calculation for US newspaper, magazine, radio, and television advertising from 1925 to 1995. The hours figure for 1925 has significant uncertainty, and reasonable different estimates for it would change real media spending per hour in 1925 by -25% to +50%. Given that real income probably increased by a factor of twenty between 1925 and 1995, the difference in real advertising spending per media hour across this period is astonishingly small.⁹⁰

Table 7			
US Real Advertising Spending/Media Hour			
(print, radio, & TV)			
	Year		
	1925	1965	1995
Media Hours/Person-Year	208	728	962
Persons Ages 15-64 (ths.)	73,342	115,752	171,676
Ad Spending/Year (mil.)	\$1,433	\$9,761	\$97,622
Purchase Power of \$ (1998=1)	9.50	5.28	1.09
Real Ad Spending/ Media Hour (1998 \$/mil. hrs)	\$0.89	\$0.61	\$0.65

⁹⁰ Real US GDP from official statistics shows about 10-fold growth from 1925 to 1995. See *Statistical Abstract*, Table 1434. Brad DeLong's more extensive consideration of the standard of living indicates that real GDP may have increased about 20 times from 1925 to 1995. See DeLong, J. Bradford, "Cornucopia: Increasing Wealth in Twentieth Century," available online at http://www.j-bradford-delong.net/TCEH/2000/TCEH_2.html.

This evidence suggests that television does not provide advertisers with a distinctively powerful tool for gaining persons' attention. Real advertising spending per media hour indicates the average value to advertisers of ordinary persons' time with media. If television represented a dramatic change in technology for gaining attention, one might expect to see advertisers spending significantly more per media hour when television viewing dominates media usage. The evidence does not show this. One might also expect to see more advertising spending per media hour when the stakes – the average income level of consumers – are higher. The evidence does not show this. Instead, comparing 1995 to 1925, about the same level of advertising spending per hour is applied to about 4.6 times as many media hours. The growth of television has led to an accumulation of advertising time, not to an increase in advertising spending intensity.

V. Effects of Advertising Prior to Radio and Television

While attention seeking has many different motives, generally the point is not to spend money but to influence behavior. Print today is often considered to be a “cold medium,” one that influences behavior through information conveyed rather than through sensual delight or a vision of a better life. Reading historical documents creates a much richer understanding of the effects of simple, immobile black figures on a white page. US historical texts show that print media, without support from radio and television, shaped visions and aspirations, built strong national brands, and influenced mundane choices of large numbers of persons.

A. Visions and Aspirations in Print

In the US in the early 1920s print media were an important means for widely disseminating visions and aspirations. As a leading historian of advertising put it, “...ad creators tried to reflect public aspirations, rather than contemporary circumstances, to mirror popular fantasies rather than social realities.”⁹¹ In 1920 a respected academic, the Dean of the New York University School of Commerce, declared to an assembly of advertising agents:

Yours is the profession of enlightenment. A promoter of commerce? Yes. An instrument of distribution? Assuredly. But you think too meanly of advertising if you confine it to these terms. It is an agency of civilization. ...[proclaim] the good gospel of advertising not merely as an economic force, but as the prophet of progress, and the moulder of public opinion, which is the strength of democracy and the hope of our civilization.⁹²

Of course for hundreds of years printed texts have been an important means for putting forward similar sorts of aspirations. But a qualitative change in the scope and intensity of

⁹¹ Marchand, Roland, *Advertising the American dream: making way for modernity, 1920-1940* (Berkeley: U. Cal. Press, 1985) p. xvii.

⁹² Laird, Pamela Walker, *Advertising progress: American business and the rise of consumer marketing* (Baltimore, MD: The Johns Hopkins University Press, 1998) pp. 363, 364, quoting Joseph French Johnson from Poster II (Aug. 1920) pp. 23-25, 59, 61.

such claims appears to have taken place between 1895 and 1905, prior to the era of radio and television.⁹³

Reactions to this change provide evidence of its significance. Running articles with titles such as “Unpunished Commercial Crime,” “Notes for a History of Book Puffery,” “Swindling and Newspaper Advertising,” “How to Curb Bill-Posters,” “The Fight Against Advertising Disfigurement,” and “The Right to Keep the World Beautiful,” authors in high-brow US magazines in the first decade of the twentieth century fought against the new and expanded uses of print media.⁹⁴ By 1920 many persons thought that an enormous amount of money was spent on print advertising. A survey found that persons over-estimated advertising expenditures for well-know products by more than a factor of four.⁹⁵ Concern about the growth of tabloids that highlighted crime and sensationalism in order to build circulation and advertising revenue was widespread in the early 1920s.⁹⁶ Reading was supposed to promote enlightenment and social progress.

Print advertising of the early 1920s was largely about creating images, imagined experiences, and sense impressions. A psychology scholar in 1924 declared that, for much of advertising:⁹⁷

Its sole function seems to be to keep a brand name before the public to make it familiar, to impress it upon the memory. Criticism of advertising of this sort, sometimes called “poster” advertising is very frequent. ...there is a difference between remembering or being familiar with an article and being convinced of its value... The former may well exist without the latter. The former depends upon complying with the so-called laws of association, the most important of which are frequency of experience, and vividness of experience or strength of impression. To arouse conviction regarding the value of a commodity is quite a different matter.

The implicit and explicit attempts to identify and promote a “rational” theory of purchasing behavior highlight the contrasting empirical fact: even before radio and television, images and impressions sold goods. As a leading advertising agency explained in 1926, “To sell *goods* we must also sell *words*. In fact we have to go further: we must sell *life*.”⁹⁸

The changing role of newspaper editors clearly shows the change in the aspirational use of print. Up to the end of the nineteenth century, editors were not particularly concerned to define and order news. The front page of an American newspaper was jungle of miscellany much like the World Wide Web is now. Moreover, textbook myths to the contrary, the “inverted pyramid” form for news articles was used in less than 1% of the

⁹³ This change is documented and analyzed as a central feature of Laird, Id.

⁹⁴ Scott, Walter Dill, *The Psychology of Advertising* (Boston: Small, Maynard & Company, 1913) pp. 249-271 (bibliography).

⁹⁵ Starch, Daniel, *Advertising Principles, An Abridgement of Principles of Advertising* (Chicago: A.W. Shaw Company, 1927) pp. 17-24.

⁹⁶ Gray and Monroe, *op. cit.*, p. 67, *passim*.

⁹⁷ Poffenberger, A.T., “Psychological Tests in Advertising,” *Journal of Experimental Psychology* Vol. 7, No. 4 (Aug. 1924) p. 316.

⁹⁸ The J. Walter Thompson Company, quoted in Marchand, p. 20.

stories in a survey of newspapers in 1890. This form grew across the turn of the century and characterized 11% of stories in 1910.⁹⁹ By the early 1920s, newspaper editors were associated with responsibility for defining and ordering the news, both as persons responsible for building circulation and advertising, and as public trustees furthering social aspirations.¹⁰⁰

B. Building National Brands with Print

In addition to changing aspirational discourse, by the early 1920s advertising in the US also had a significant impact on the language of routine material life. In 1909 a competitor to Ivory (a brand of soap) lamented that Ivory "...is about 99 45-100 per cent imbedded in the broad American mind..."¹⁰¹ Leading brands in the US in the early 1920s included many that are still part of consumer culture in the year 2001: Gillette (razors), Crisco (shortening), Coca-Cola (drink), Eveready (battery), and Lipton (tea). These and other important elements of US consumer culture were established early in the twentieth century, before the growth of radio and television.

Some systematic quantitative evidence is available for assessing the breadth and depth of early US consumer culture. In 1917, 1921, and 1925, academics in the fields of marketing and psychology conducted pioneering social-scientific studies of public familiarity with commercial brands.¹⁰² The general approach was to give subjects lists of generic items and ask them to write down the first brand, if any, that came to mind in association with the generic item. Scholars in geographically dispersed universities administered the tests to sets of local subjects, based on standardized methodology and instruments that the primary investigators designed.¹⁰³ Results were then collected to form samples of sizes 300, 1024, and 1000 for the 1917, 1921, and 1925 studies, respectively. Overall, an explicit, convincing theme of these studies was objectivity: "There was no attempt to prove or disprove any preconceived opinion. The object was to find the facts."¹⁰⁴

⁹⁹ The above facts are from a methodologically sophisticated survey of about 5000 US news articles per year at five-year intervals from 1860 to 1910. See Errico, Marcos, with assistance from John April, Andrew Ash, Lynette Khalfani, Miriam A. Smith, and Xochiti R. Ybarra, "The Evolution of the Summary News Lead," *Media History Monographs* vol. 1, no. 1, available online at <http://www.scripps.ohiou.edu/mediahistory/mhmjour1-1.htm>

¹⁰⁰ Leonard, pp. 138-9.

¹⁰¹ Strasser, Susan, *Satisfaction Guaranteed: The Making of the American Mass Market* (New York: Pantheon, 1989) p. 57.

¹⁰² Geissler, L.R., "Association-Reactions Applied To Ideas of Commercial Brands of Familiar Articles," *The Journal of Applied Psychology*, Vol. 1, No. 3 (Sept. 1917) pp. 275-90; Hotchkiss, George Burton and Richard B. Franken, *The Leadership of Advertised Brands* (Garden City, NY: Doubleday, Page & Co., 1923) [the 1921 study]; Hotchkiss, George Burton and Richard B. Franken, *The Measurement of Advertising Effects* (New York: Harper & Brothers Publishers, 1927) [the 1925 study].

¹⁰³ Unfortunately the way in which the subjects were selected is not described. If subjects were solicited for "a test of advertising awareness" as opposed to "a psychological test," the result might be significantly biased. The method for selecting subjects appears to have been left to the individual university test sites. One might hope that scholars attempting to pursue social-scientific investigation would not select samples in a biased way.

¹⁰⁴ Hotchkiss and Franken, *Measurement*, p. xi.

Of course facts need to be interpreted, and understanding the characteristics of the sample is crucial to interpreting the results. The subjects were students from leading US institutions of higher education across the US.¹⁰⁵ Thus on average the subjects were more educated and from more wealthy families than the average US adult.¹⁰⁶ Since no historically black universities were included, blacks were undoubtedly under-represented relative to their share among college-age persons from families with relatively high incomes. Moreover, hostility toward immigrants not from England and Northern Europe was strong in the US in the early 1920s. All these factors indicate that the sample probably only provides evidence on brand awareness among young, white, educated persons from families with high income and origins in England and Northern Europe.

On the other hand, this was the audience that advertisers at that time predominately sought to reach. Advertisers generally did not seek to reach persons with low incomes, blacks, tenant farmers, or persons not fluent in English. Such groups probably constituted 30-65% of the US population in the 1920s.¹⁰⁷ Of course, images and desires diffuse among persons, and awareness of goods, and yearnings for them, aren't necessarily constrained by purchasing power. Nonetheless, across all persons in the US, socio-economic differences may have been more important in determining brand awareness among purchasers than the volume or effectiveness of advertising. National brands may have been a significant part of the material life of less than half of adults.

Sex is also a significant factor in assessing the role of brands. Masculinity in the early twentieth century US was associated with business outside the home: producing objects for sale and earning money. Femininity was associated with purchasing goods for family and self.¹⁰⁸ One early twentieth century empirical study of families found that 100% of women independently purchased their own underwear, lace, thread, and cooking utensils, while less than 50% of men independently purchased their own underwear,

¹⁰⁵ The 1921 study included students from Columbia University (NY), Dartmouth College (NH), Elizabethtown College (PA), Emory University (GA), Harvard University (MA), Hunter College (NY), Indiana University (IN), Lewiston State Normal School (ID), New York University (NY), Ohio State Normal School (OH), Pennsylvania College for Women (PA), Smith College (MA), University of California at Berkeley (CA), Virginia State Teachers College (VA), and Wilson College (PA). The 1925 study included students from Barnard College (NY), Dartmouth University (NH), Emory University (GA), Harriette Melissa Mills Kindergarten Training School (NY), Harvard University (MA), Milwaukee Downer College (WI), Smith College (MA), Stanford University (CA), University of Denver (CO), University of Texas (TX), University of Wisconsin (WI), Vassar College (NY), and Wilson College (PA).

¹⁰⁶ About 1925 only about a quarter of the US population fifteen years or older had as much or more formal education than four years of high school. See *Statistical Abstract*, Table 1426. Median family income in the US in 1929 was about \$1600 (see *Historical Statistics*, series G-109), while typical family income for students attending Yale University in the mid-1920s was about \$15000. See Hendersen, Yandell, and Maurice R. Davie, *Incomes and Living Costs of a University Faculty* (New Haven: Yale University Press, 1927) p. 13.

¹⁰⁷ Marchand, p. 64.

¹⁰⁸ Marchand, pp. 66-69. For an analysis of some factors contributing to these developments in early nineteenth century Lancashire, England (a setting with considerable historical significance), see Galbi, Douglas A., "Through Eyes in the Storm: Aspects of the Personal History of Women Workers in the Industrial Revolution," *Social History* 21 (No. 2) 1996: 142-59, and Galbi, Douglas A., "Economic Change and Sex Discrimination in the Early English Cotton Factories," available online at http://papers2.ssrn.com/paper.taf?ABSTRACT_ID=239564

handkerchiefs, or socks.¹⁰⁹ The only product associated exclusively with independent male purchasing was collars, the leading brand of which featured motifs from gay life and fantasy.¹¹⁰ Overall, advertisers in the 1920s considered women to control 80-85% of consumer spending.¹¹¹ Building national brands was seen largely as the process of influencing the thinking and actions of women.

Given these cultural and behavioral patterns, the studies should be interpreted thoughtfully with respect to sex. The focus of this section is on aggregate brand awareness among purchasers. The study in 1917 included only men. If women's and men's brand perceptions were not similar, then this study is highly deficient. The studies in 1921 and 1925 included equal numbers of women and men. In forming aggregates these studies treated women's and men's responses equally. But women's and men's brand perceptions were not equally important in purchasing decisions. The evidence on sex-based differences in spending indicates that, in assessing aggregate brand awareness among purchasers, women's brand perceptions should be weighted about four times as heavily as men's.

Across a wide range of products, the studies show that more than two-thirds of purchasers were aware of some brand for a product. The 1921 study covered 100 generic products, including food products, types of clothing, home furnishings, scholarly supplies (pens, ink, paper), personal care products, and a range of other items.¹¹² On average about two-thirds of the subjects could identify some brand for a given item.¹¹³ Women and men each probably had brand identification shares above two-thirds for 60 or more

¹⁰⁹ Hollingworth, Harry L., *Advertising and Selling* (New York: D. Appleton and Co., 1913) pp. 289-92.

¹¹⁰ See Hollingworth, p. 291. Joseph C. Leyendecker, a leading early twentieth century commercial artist, produced illustrations for Arrows collars. On brand recognition of Arrow collars, see Table 5 in text. For an example of Leyendecker's illustrations for Arrows' collars, and considerable additional information on Leyendecker, see <http://www.geocities.com/WestHollywood/Heights/8052/leykupcruisers.html> and links.

¹¹¹ Marchand, p. 66. Despite large changes in women's workforce participation, advertisers believe that women in the US currently control 75% of family finances and 80% of family purchase decisions. See "Report: Women Will Dominate Net Purchasing," *E-commerce Times*, Jan. 18, 2000, available online at <http://www.ecommercetimes.com/news/articles2000/000118-2.shtml> On the other hand, some developments do indicate increasing masculine attention to consumption. *Maxim* magazine provides a masculine version of the consumer-lifestyle fantasy that *Cosmopolitan* magazine has provided for women since the mid-1960s. Starting from a 1997 US launch date, by the end of 1999 *Maxim* achieved US circulation of 1.5 million, an astonishing success by industry standards. For a comparative analysis of the commercial success of *Cosmopolitan* and *Maxim*, see Whelan, Christine B., M.Phil. Dissertation in Economic and Social History, Oxford University, forthcoming.

¹¹² The authors claim that the 100 commodities represent "practically every important line of merchandise that enters the average household." Hotchkiss and Franken, *Measurement*, p. 85. In fact the commodity list included a large number of personal care products and products that students, particularly male students, might possess; the commodities on the list cover, for a high-income family, about 40% of expenditure (excluding housing, fuel, and light) at a relatively fine level of detail. This estimate is based on a comparison with detailed expenditure data in US Bureau of Labor Statistics, *Cost of Living in the United States*, Bulletin No. 357 (May, 1924), Tables C, F, and G [from expenditure survey 1918-1919], and National Industrial Conference Board, *The Cost of Living in the United States 1914-1929* (New York, 1930) p. 74, 169-172 [other expenditure surveys in the mid-1920s]. Expenditure patterns were used for the highest-income groups available; for the BLS data, the group used for comparison had average family income of \$2790.

¹¹³ Hotchkiss and Franken, *Measurement*, p. 85.

items.¹¹⁴ Soap, soup, and crackers – items for which consumption patterns were not strongly linked to income or social status – had brand awareness above 85% for both women and men. The 1917 and 1925 studies covered only 20 and 10 commodities, respectively, and brand identification shares for women (1925 study) and men (1917 study and 1925 study) were above 90% for all items but four in the 1917 study.¹¹⁵ Brands were a pervasive aspect of the US commercial economy in the early 1920s.

Not only were brands relevant for a wide range of products, there were also a large number of brands for specific products. Ask to list the first brand of toothpaste that came to mind, 300 subjects in the 1917 study came up with 25 brands of toothpaste. Subjects in the same way identified 17 brands of underwear, 37 brands of tobacco, 42 brands of soap, and 78 brands of shoes.¹¹⁶ Similar results are apparent in the 1925 study. Brands in the early 1920s were not just about a few, large corporations creating a mass market; many companies large and small pushed their brands into persons' consciousness.

Some brands succeeded in acquiring significant national mind-share without the benefit of radio or television advertising. Table 8 shows the share of women and men who cited the most commonly cited brands in the 1921 study.¹¹⁷ Eighty years later most of these brands are not well-known, but the level of awareness that they garnered in the early 1920s, without the “hot” medium of television, is astonishing. Consider the fact that more than 80% of the subjects, when asked to identify a brand of camera, wrote down Eastman (Kodak). Most persons do not purchase or use a camera regularly. And there were other brands of cameras; subjects noted 18 brands of cameras in the 1917 study. Yet in 1921 over 80% of the subjects' first brand association for cameras was Eastman. That's a feat that probably would impress even a twenty-first century Coca-Cola advertising executive.

¹¹⁴ Id. pp. 86, 90-93, Hotchkiss and Franken, *Leadership*, pp. 109-112. Some items had relatively low brand awareness; items with brand awareness below 25% for both women and men were rice, lice curtains, ribbon, and umbrellas.

¹¹⁵ All the commodities in the 1917 and 1925 studies were covered in the 1921 study, except for three items in the 1917 study: baseball, popular magazine, and penknife. The four commodities with below 90% brand identification in the 1917 study were penknife, shirt, candy, and notepaper.

¹¹⁶ Geissler, Table I, p. 278.

¹¹⁷ Unfortunately, the data do not indicate the percent of women who named *the most frequently named brand among women*. The share of women who named *the most frequently named brand overall* is a lower bound for the share of women who named *the most frequently named brand among women*. For 20 items the leading brand among women was different from the leading brand among men. See Hotchkiss and Franken, *Leadership*, p. 40. For the items in Table 8, this issue may have been significant only for fountain pens.

Table 8					
Brands Associated with a Commodity, 1921					
(% of subjects naming brand as first brand associated with commodity)					
Women			Men		
Commodity	Brand		Commodity	Brand	
cameras	Eastman	82%	cameras	Eastman	90%
cleanser	Old Dutch	79%	collars	Arrow	82%
soup	Campbell	78%	fountain pens	Waterman	81%
coffee	Postum	75%	sewing	Singer	80%
substitute			machine		
sewing	Singer	71%	chewing gum	Wrigley	74%
machine					
fountain pens	Waterman	65%	crackers	National Biscuit Co.	72%
collars	Arrow	64%	soup	Campbell	70%
toothbrush	Prophylactic	60%	coffee	Postum	70%
			substitute		
crackers	National Biscuit Co.	58%	rubber heels	O'Sullivan	70%
dyes	Diamond	57%	cleanser	Old Dutch	67%

While use of a branded product helps to build awareness of the brand, high brand awareness in the early 1920s was not just about having a large share of users of the branded product. Table 8 shows that 64% of women associated Arrow with collars. This brand awareness could not have come from purchasing or use: only men wore collars, and only men bought collars. Moreover, as Table 9 indicates, many brands had a relatively high level of brand awareness among subjects who had never used the brand.¹¹⁸ Creating a national brand was a distinct, well-recognized task prior to the development of radio and television. Company leaders believed that building a brand made an important contribution to commercial success, and they spent significant sums on printed advertising in order to do so.¹¹⁹

¹¹⁸ In the 1925 study, subjects were asked to list 10 brands for each of the following items: tooth paste, soap, hosiery, typewriters, breakfast food, coffee, cigarettes, fountain pens, hats, and watches. A day later the subjects were asked to list the brands of these items that they were using and had used. For a given brand, Table 9 gives (mentions of brand – past and present users of brand)/ (sample size – past and present users of brand). Some users of a brand failed to mention it, while some subjects probably didn't list some brands that they used currently or in the past. Such errors probably had an effect less than plus or minus 10% for most brands.

¹¹⁹ See Hotchkiss and Franken, *Leadership*, Chapter V. For an interesting article describing in detail the effort and importance Henry Heinz attached to brand-building in the late nineteenth century, see Koehn, Nancy F., "Henry Heinz and Brand Creation in the Late Nineteenth Century: Making Markets for Processed Food," *Business History Review* 73 (Autumn 1999) pp. 349-393.

Table 9 Brand Recognition Among Non-Users of Brand (% of subjects naming brand among top 10 brands)					
Women			Men		
soap	Ivory	97%	typewriters	Remington	93%
cigarettes	Camel	83%	tooth paste	Colgate	91%
typewriters	Remington	83%	cigarettes	Camel	90%
tooth paste	Colgate	82%	watches	Elgin	82%
fountain pens	Waterman	69%	typewriters	Underwood	78%
cigarettes	Chesterfield	68%	cigarettes	Lucky Strike	75%
watches	Ingersoll	66%	cigarettes	Chesterfield	73%
typewriters	Underwood	63%	soap	Ivory	71%
cigarettes	Fatima	63%	hats	Stetson	68%
cigarettes	Lucky Strike	60%	fountain pens	Parker	64%

C. Commercial Value of Print

Some advertising in the early 1920s stimulated product use directly and highly successfully. About 1923 Fleischmann Company started running information-intensive newspaper and magazine advertisements that detailed how eating Fleischmann's Yeast helped a person to avoid constipation and counteract "intestinal fatigue." Over the next three years Fleischmann's Yeast sales increased 130% percent without any other merchandising efforts. Advertising spending for Listerine rose from \$100,000 in 1922 to \$5 million in 1928 through print campaigns that informed the public of Listerine's value in curing "halitosis" (a previously unknown term for "bad breath") as well as dandruff, colds, and sore throats. The profits of the company that sold Listerine followed advertising spending in trend and magnitude: profits rose from \$100,000 per year in 1921 to over \$4 million in 1927.¹²⁰ Information provided in print could powerfully shape purchasing behavior.

But the power of print went well beyond providing information: creating positive images and associations had significant commercial value recognized as a financial asset. In the antitrust case that broke up American Tobacco Co. in 1911, the company estimated the value of its trademarks as \$45 million out of total assets of \$227 million.¹²¹ About 1911 an officer of Coca-Cola placed the value of its trademark at \$5 million, perhaps slightly less than half the value of its yearly sales.¹²² Trade names such as Mennen's Talcum Powder, Royal Baking Powder, Quaker Oats, and the Gold Dust Twins and the Fairy Soap Girl were asserted by various authorities to be worth over \$8 million in the late 1910s.¹²³ Table 10 shows a selection of companies with large amounts of "good will"

¹²⁰ The information about the advertising campaigns for Fleischmann's Yeast and Listerine are from Marchand, pp. 16-20.

¹²¹ Fawcett, Waldon, "Trade-marks That Have Been Refused Registration," *Printers' Ink*, May 2, 1912.

¹²² Id.

¹²³ Starch, pp. 413-14.

listed in their financial statements in *Moody's Manual of Investments*. Companies had a large amount of discretion in financial reporting. Good will could reflect the effects of mergers and accounting strategies as well as the value of trademarks and reputation. Nonetheless, Table 10 shows that companies claimed significant intangible values in the financial world of the early 1920s.¹²⁴

Company	Products	Good Will	as % assets	as % op.prof.
Lehn & Fink	Cleansers/ personal care	\$6,214,421	64%	492%
Coca-Cola	Drink	\$20,740,677	63%	209%
Bon Ami	Cleansers	\$2,850,000	50%	132%
Remington Typewriter	Typewriters	\$14,023,555	45%	435%
American Tobacco	Tobacco products	\$54,099,430	28%	243%
Underwood Typewriter	Typewriters	\$7,995,720	26%	241%
Pyrene	Cooking utensils	\$1,002,450	26%	
Pond's Extract	Personal care products	\$544,570	24%	162%
Quaker Oats	Food	\$9,258,421	19%	129%
Wrigleys	Chewing gum	\$6,000,000	15%	33%

Economists recognized the pricing power that brands gave firms early in the twentieth century. Richard Ely, Frank Knight, and Thorstein Veblen, well-respected early twentieth century US economists, described trademarks as creating a kind of monopoly.¹²⁵ In his book *The Theory of Monopolistic Competition*, written in the mid-1920s, Edward Chamberlin noted “the huge prestige value” of brands. He suggested that the monopoly element of trademarks might be quantitatively more important in the US economy than the 17-year monopoly rights that the US government had granted in the form of patents.¹²⁶ This statement was made at a time when the fruits of what one scholar

¹²⁴ Brand equity as a concept has gained salience in the 1990s. A study of the world's most valuable brands in 2000 found Coca-Cola's brand to be most valuable, with value estimated at \$72.5 billion. For the twenty most valuable brands, brand equity as a share of market capitalization ranged from 4% to 75%, while brand equity as a share of sales ranged from 30% to 410%. See Interbrand, *The World's Most Valuable Brands 2000*, available online at http://www.interbrand.com/league_chart.html

¹²⁵ These are some of the authorities cited in Chamberlin, Edward, *The Theory of Monopolistic Competition* (Cambridge: Harvard University Press, 1933) [awarded prize dissertation prize for 1927-28] pp. 59-63.

¹²⁶ Id. p. 62. For an interesting discussion of the growth of US business and the legal history of trademarks, see Wilkins, Mira, “The Neglected Intangible Asset: The Influence of the Trade Mark on the Rise of the Modern Corporation,” in Harvey, Charles and Geoffrey Jones, *Organisational capability and competitive advantage* (London: F. Cass, 1992) pp. 66-95. Wilkins' discussion of Chamberlin's views on trademarks directed me to this important evidence.

called “the greatest decade” for invention (1876-1886) and the associated period known as the Second Industrial Revolution were making dramatic changes in everyday life.¹²⁷ Moreover, the number of patents issued in 1925 was only about one-half as many as were issued in 1995, while US real GDP in 1925 was perhaps one-tenth or one-twentieth of that in 1995.¹²⁸ Chamberlin’s statement suggests that brand-building prior to radio and television created huge commercial value.

Chamberlin is not considered a shallow thinker, and his statement about the value of trademarks was not a flippant remark.¹²⁹ The importance that he attached to trademarks is emphasized in his policy analysis regarding trademarks. He argued that infringement and imitation, legally challenged under doctrines of “unfair trading,” had important economic benefits and ought to be “permitted and even encouraged.”¹³⁰ Showing pragmatism and moderation, he recognized some benefits from legal support for trademarks, and he put forward an alternative policy:¹³¹

...the exclusive use of a trade-mark might be granted for a limited period, under the same principle as that of the patent law, say for five years, after which anyone could make the identical product and call it by the same name. The wastes of advertising, about which economists have so often complained, would be reduced, for no one could afford to build up goodwill by this means, only to see it vanish through unimpeded entrance of competitors. There would be more nearly equal returns to all producers and the elimination of sustained monopoly profits. All in all, there would be a closer approach to those beneficent results ordinarily pictured as working themselves out under “free competition.”

This proposal, although quite similar in form to many policy arguments in the US today, is ridiculous as practical policy.¹³² But it is compelling historical evidence of the power of print advertising.

VI. The Importance of Attention to Government

Governments have distinct brands with a high level of public awareness. Most persons know the name of the country in which they reside. Flags, anthems, and less prominently, seals, developed as part of building national government brands.

¹²⁷ Gordon, Robert J. “Does the ‘New Economy’ Measure up to the Great Inventions of the Past?”, forthcoming in the *Journal of Economic Perspectives*, available online at http://faculty-web.at.northwestern.edu/economics/gordon/351_text.pdf

¹²⁸ Patent statistics are from the US Patent Office. See http://www.uspto.gov/web/offices/ac/ido/oeip/taf/h_counts.htm. Real US GDP from official statistics shows about 10-fold growth from 1925 to 1995. See *Statistical Abstract*, Table 1434. Brad DeLong’s more extensive consideration of the standard of living indicates that real GDP may have increased about 20 times from 1925 to 1995. See DeLong, J. Bradford, “Cornucopia: Increasing Wealth in Twentieth Century,” available online at http://www.j-bradford-delong.net/TCEH/2000/TCEH_2.html.

¹²⁹ Chamberlin is still regarded as a pioneering figure in industrial organization, and his work on monopolistic competition has inspired a large scholarly literature.

¹³⁰ Chamberlin, Appendix E, p. 270.

¹³¹ Id. p. 274.

¹³² Cf. Galbi, Douglas A., “Transforming the Structure of Network Interconnection and Transport,” *CommLaw Conspectus*, v. 8, n. 2 (Summer 2000) Section II.

Government in a geographic area typically has many sub-brands such as national, state, and local governments, and associated particular government bodies and agencies. Persons' views about government do not relate just to specific products – did the government get me something specific that I wanted – but are typically based on a broad range of emotions, images, and self-images. Thus citizens may strongly fear government intrusions on personal freedom or strongly support government action, without reference to particular government actions. Such broad, emotion-laden images and associations are characteristic of a well-recognized, powerful brand name.

Government is also an important provider of information and services, many of which can be provided under no other brand. The UK E-Minister recently declared, “Government information is the largest information resource available to the UK.”¹³³ Government publications include studies, laws, official statistics, transcripts of hearings and proceedings, material submitted for public consideration as part of hearings or proceedings, and a variety of other material. The US Government Printing Office issued about 18000 new titles in 1999, a volume equal to about a quarter of the total number of new books and new editions published in the US¹³⁴ Central government expenditure in high-income economies typically amounts to about 35-45% of GDP.¹³⁵ Routine, widely experienced transactions with government include renewing a driver's license, getting a marriage license or registering a birth, paying taxes, obtaining information about public parks and recreational opportunities, and voting.

Many governments are moving aggressively to provide services electronically. Under terms such as government online, electronic government, and e-government, governments are seeking to use the Internet to provide services cheaper, faster, more conveniently, and more effectively.¹³⁶ Singapore's eCitizen Central portal (www.ecitizen.gov.sg) and the Centrelink portal in Australia (www.centrelink.gov.au) are among the early, important examples of these developments. In the US, the state of California has recently established an impressive e-government portal (my.ca.gov), and the state of Texas has set out an ambitious program for e-government.¹³⁷ These efforts

¹³³ See DTI Press Release 2000/602 (6 September 2000); online at <http://www.hms.o.gov.uk/p2000602.htm>

¹³⁴ See *Biennial Report to Congress on the Status of GPO Access*, Appendix C; online at http://www.access.gpo.gov/su_docs/aces/biennial/index.html. For the number of book titles, see *Statistical Abstract*, Table 938.

¹³⁵ See World Bank, *World Development Report 2000/2001*, Selected World Development Indicators, Table 14; available online at <http://www.worldbank.org/poverty/wdrpoverty/report/index.htm>. Note that central government expenditure includes transfer payments for social security and health that are economic transactions but are not included in GDP. Government (final) consumption as a share of GDP in high-income countries is about 15-20%. See *Id.* Table 13. The relevant measure for the discussion here is government transactions as a share of economy-wide transactions. Unfortunately such a measure is not available.

¹³⁶ *Government Online, The Commonwealth Government's Strategy* (April 2000) [Australia], <http://www.ieg.ibm.com/pdf/GovernmentOnlineStrategy.pdf>; *eEurope 2002 Action Plan: Government online* [European Union], at http://europa.eu.int/comm/information_society/eeurope/actionplan/actline3b_en.htm; *Contract with the future, A vision on the electronic relationship between government and citizen* (19 May 2000) [Netherlands], at <http://www.ieg.ibm.com/pdf/future.pdf>; *National Partnership for Reinventing Government, E-Gov* (April 2000) [United States], at <http://www.npr.gov/library/Visionddb1.htm>.

¹³⁷ See *e-Texas, Report of the e-Texas Commission* (20 December 2000), online at

represent useful applications of dynamic hyperlinked text and images. They will undoubtedly attract considerable attention from a large number of persons by virtue of their functionality.

A. The Future Includes State Media

Direct and effective government editorial control over key media has a bad image. Where governments have owned and controlled the media, governments have repressed personal freedoms, choked off diversity in civic development, and compiled a comparatively poor record of fostering citizens' health and wealth.¹³⁸ In such a media environment, governments have been more likely to allow their citizens to die of starvation and to send them to be killed in wars.¹³⁹ They have distributed mind-numbing propaganda of a narrow and unentertaining sort. In short, government editorial control over media is associated with evil.

The Internet points toward a media environment that may be safe for state-owned-and-controlled media. Imagine a media environment in which every person could broadcast messages free from direct editorial control. Imagine that every person could also receive messages from every source, free from direct interference. Why should government bodies in such an environment be considered more dangerous message creators than any other person? Such a media environment is rapidly developing on the Internet. Painful images and associations that no longer may be relevant should not be allowed to subconsciously foreclose potentially important policy directions.¹⁴⁰

While e-government portals point to a new form of state-owned-and-controlled media, studies and proposals for e-government have been closely linked to the discourse of business productivity: "Citizens want the same one-stop shopping and service-in-an-instant options from their government as they do from private business."¹⁴¹ E-government has been presented as "the coming of the new government enterprise," one that will "provide customer service equal to the best in business."¹⁴² Leading e-government portals are structured in terms of typical needs of everyday life, and governments have issued orders promoting the use of "plain language."¹⁴³ In terms of attentional economics, e-government efforts communicate like product advertisements in

<http://www.e-Texas.org/report/>.

¹³⁸ The record of communism in Central and Eastern Europe shows this clearly.

¹³⁹ The importance of personal and political freedom to human good is a strong theme of Amartya Sen's work. See Sen, Amartya, *Development as Freedom* (New York: Knopf, 1999).

¹⁴⁰ For some additional elaboration on the ideas in this section, see Galbi, Douglas, "e-government: developing state communications in a free media environment," *foresight* vol. 03, no. 01, (feb.01). A working paper version of this paper is on-line at <http://www.galbithink.org> and <http://www.ssrn.com>

¹⁴¹ Deloitte Research, *At the Dawn of e-Government, the Citizen as Customer* (June 200) p. 5, online at <http://www.dc.com/obx/pages.php?Sector=R&Industry=P&submit.x=17&submit.y=21> .

¹⁴² See Deloitte Research, *Through the Portal, Enterprise Transformation for e-Government*, p. 1, online at <http://www.dc.com/obx/pages.php?Sector=R&Industry=P&submit.x=17&submit.y=21> ; CustomerService.gov [the US Federal Government's Customer Service Web Site].

¹⁴³ Singapore's widely acclaimed e-government portal is structured in terms of life events. See www.ecitizen.gov.sg . A requirement to use plain language has been issued as part of the US program to re-invent the Federal Government. See <http://www.plainlanguage.gov/cites/memo.htm> .

the mid-nineteenth century: they emphasize provision of service, functionality, and efficiency.¹⁴⁴

E-government efforts could do much more to attract attention to state-owned-and-controlled media. Drawing upon lessons from the historical success of newspapers, e-government portals could seek to provide daily content that creates and advances stories that attract wide, habitual attention. The historical evidence on advertising shows clearly that artfully chosen words can attract attention by creating appealing images, impressions, and fantasies. Many governments are extensively involved in lotteries, which could provide an important source of exclusive content for attracting attention.¹⁴⁵ More attention could also be placed on presenting personalities in affective, intimate contexts. Governments, like other media owners, could also acquire content through syndication. Even without streaming audio and video, a feasible goal for a government owned-and-controlled channel on the Internet is to become a major focus of attention among citizens.

In the appropriate media environment, this sort of state-owned-and-controlled media could create new, highly beneficial policy options and directions. Policy deliberations concerning government regulation of media programming would include many richer options when government had direct editorial control over important media content. Debates about campaign financing and candidate access to media would take on a much different form if an important means for getting attention were a state-owned-and-controlled channel. The need for media entrepreneurs to link their profit-oriented businesses to ideas of public trusteeship would be greatly reduced. The information industry could become less politicized, while politics could become less commercialized.

B. Promoting a Multiplicity of Sources and Outlets

Communications policy should promote a multiplicity of sources and outlets for information and communications. The Internet of today shows that decentralized, individual initiatives can greatly further these goals. Much of what is valuable about the Internet has been created through the interests and passions of persons around the globe, quite apart from commercial incentives. Governments should recognize, cherish, and encourage such non-commercial work.

¹⁴⁴ For an interesting analysis of the shift from narrow, production-oriented advertisements to broad, consumer-oriented lifestyle advertisements, a shift which took place in the US between 1895 and 1905, see Laird, Pamela Walker, *Advertising Progress: American business and the rise of consumer marketing* (Baltimore, MD: The John Hopkins Press, 1998).

¹⁴⁵ Total lottery sales in the US in 1996 amounted to \$42.9 billion. There is a virtual government monopoly in the US on lotteries, and lotteries generated for US governments (primarily state government) \$13.8 billion in revenue 1996. There are important policy issues and many different policy directions associated with state-run lotteries. These issues are now being studied and discussed. See National Gambling Impact Study Commission, <http://www.ngisc.gov>. On lotteries, see Research on Lotteries, online at <http://www.ngisc.gov/research/lotteries.html>, and Clotfelter, Charles T., Philip J. Cook, Julie A. Edell, and Marian Moore, "State Lotteries at the Turn of the Century: Report to the National Gambling Impact Study Commission," April 23, 1999, esp. pp. 21-25; online at <http://www.ngisc.gov/reports/lotfinal.pdf>.

The astonishing non-commercial success of the Internet has, unfortunately, created some policy problems. A wider variety of information sources and outlets requires a propitious environment for commercial provision of content and services on the Internet. A well-recognized challenge currently associated with commercial Internet content and services is that persons have become accustomed to getting such content and services for free.¹⁴⁶ Many Internet users are unwilling, because of what they have learned through their past use of Internet services, to consider seriously providing money as part of an exchange associated with particular Internet content or services. Services that cost money are not considered worthy of attention. In addition, privacy rights, transaction terms, and use rights associated with digital content lack legitimated standards that economize on human attention.¹⁴⁷ These features of current attentional economics undoubtedly cause a substantial reduction in the multiplicity of socially valued digital content and services. They also lessen the opportunities for creating jobs and economic opportunity in the information sector of the economy.

Governments should use their role as providers of online content and services to influence citizens' patterns of attention. The goal should be to foster patterns of attention that enable the growth of both non-commercial and commercial sources and outlets. In particular, government media should seek to develop in citizens a willingness to consider including some money as part of an online exchange. Providing some widely demanded government products for a low fee online would help to do that. The point of the fee would not be to raise money or recover costs, but to teach citizens not to reject, as undeserving of attention, online information and services that require money as part of the transaction. Transactions should also be structured so as to promote widely accepted standards or rights for making online transactions and using digital content included in such transactions. The credibility of the government as a legitimate authority could help to establish reasonable norms for online transactions. The development of such norms is crucial for economically efficient use of attention.

VII. Conclusion

Critical analysis highlights an important contrast in the economy of attention. In the deliberations of scholars, policy analysts, and policy makers, television has exceptional power and influence. Yet the historical record shows that television has not changed the economics of attention for large populations in the course of their daily lives. This contrast is not merely a fluke or just ironic. It points to a fundamental economic strain in the information society.

¹⁴⁶ A recent Wall Street Journal article described the following comment as typical of those on Napster's message boards following its announcement that it would be developing a fee-based service:

"Napster=FREE/If Napster decides to not = free any longer then I will switch to another freebie/There are many out there. .../The Internet is a great place, you can get whatever you want on here. No matter what./Free Free Free." The article then went on to note: "Such a sentiment can only leave one wondering which battle cry for the Internet will ultimately win out: "Live free or die," or "Live free and die." Kara Swisher, "Sites Eschew Giveaways in Favor of Charging", December 4, 2000.

¹⁴⁷ For example, considerable attention would be required to evaluate a website's privacy statement without any additional information about its normal status.

This strain is also apparent in economics of revenue. Content industries, i.e. industries producing digital artifacts embodying human intellectual and creative labor, provide much less revenue for network operators than point-to-point communications.¹⁴⁸ Yet technology is rapidly reducing the cost of standardized, universal point-to-point communications.¹⁴⁹ If the distinction between content industries and point-to-point communications remains fundamental, and if the information economy is primarily about the latter services, then private, competitive communications infrastructure may be dysfunctional and marginalized in the information economy.¹⁵⁰

The practice of elections in some countries shows a related strain. In the US spending on political advertisements has been increasing dramatically.¹⁵¹ Almost all of the spending is directed toward network and local television.¹⁵² This development has created pressure for campaign finance regulation and for imposing new, more effectively enforced regulations on how broadcasters conduct their businesses.¹⁵³ However, the effects of the increased volume of televised political advertisements on most persons' attention and voting behavior are far from clear. From a cross-country perspective, relatively high levels of political advertising in the US have not produced a high level of voter turnout or political engagement. Civic engagement, knowledge about political affairs, and voter turnout have fallen in the US since the 1950s.¹⁵⁴ Current media structure may be

¹⁴⁸ This is a major theme of Andrew Odlyzko's important recent work, "The history of communications and its implications for the Internet" (Prel. ver. June 16, 2000), online at <http://www.research.att.com/~amo>.

¹⁴⁹ As pointed out in Galbi, Douglas, "the price of telecom competition," *info* vol. 1 no. 2 (April 1999), advertising and promotional expenses for US long-distance telephone companies in a single year are about the same magnitude as the total capital cost of building a national network that could provide all residents of the US free long distance telephone service. Point-to-point communications are highly valued, but the costs of providing standard, point-to-point communications services, apart from marketing and promoting, is plummeting. That's why most analysts consider consumer long-distance telephone services, which generated about \$30 billion in revenue in 1997, to be a dying business. See also, Galbi, Douglas, "Regulating Prices for Shifting Between Service Providers," draft available on <http://www.galbithink.org>, revised version forthcoming in *Information Economics and Policy*.

¹⁵⁰ The growth of government-owned networks reflects this dynamic. Similarly, discussions of the "end-to-end" principle and "open access" often implicitly present a single, universal public common-carrier network as the industry configuration that best serves the public interest.

¹⁵¹ Democratic and Republican Party receipts reported to the Federal Election Commission (FEC) were 37% higher in the 2000 election cycle than in the 1996 election year. See FEC News Release, Jan. 12, 2001, online at <http://fecweb1.fec.gov/press/011201partyfunds.htm>.

¹⁵² The amount of spending on cable, radio and print political advertising in US presidential campaigns appears to be only about 10% of total campaign advertising spending. See Corrado, Anthony, *Campaign Finance Reform* (New York: Century Foundation Press, 2000) pp. 83-87; Alexander, Herbert E. and Anthony Corrado, *Financing the 1992 election* (Armonk, N.Y.: M.E. Sharpe, 1995) pp. 236-7; Alexander, Herbert E., and Monica Bauer, *Financing the 1988 election* (Boulder, CO: Westview Press, 1991) pp. 36-7.

¹⁵³ The US Advisory Committee on the Public Interest Obligations of Digital Television Broadcasters, also known as the "Gore Commission," recommended in December, 1998 that television stations air five minutes of "candidate-centered discourse" in the 30 nights preceding any election. Most stations did not do so in the 2000 primary elections. See Alliance for Better Campaigns, "Broadcast Television & Campaign 2000", online at <http://www.bettercampaigns.org/Doldisc/execsumm.htm>.

¹⁵⁴ See Putnam, *Bowling Alone*; Popkin, Samuel L., *The Reasoning Voter: Communication and Persuasion in Presidential Campaigns* (Chicago: University of Chicago Press, 1991); and FEC voter turnout data, online at <http://www.fec.gov/pages/htmlto5.htm>, <http://www.fec.gov/votregis/InternatTO.htm>.

fostering a form a political competition that does not serve the public interest and that makes media development more challenging politically.

TV isn't IT. The development of information societies requires communications policy to promote a much broader concept of media development than enhancing or improving television. An important recent book has identified the passage of the Post Office Act of 1792 as "a key event in the history of information in the United States," an event described as more important than the enactment of the First Amendment to the US Constitution, more important than provisions for public education that the US Congress mandated in the Northwest Ordinance.¹⁵⁵ Metaphors such as The Information Superhighway obscure the contextual nature of media use.¹⁵⁶ A vibrant information society requires the development of more diverse media and more diverse ways of interacting with media.¹⁵⁷

State media potentially provide an important policy lever for overcoming impediments to further development of the information society. State media, by converging media operation with political responsibility, would foster needed separation between politics and business for many other actors in the information industry. Rather than stultifying persons and civil society, in the right media environment state media could enable much greater media diversity, innovation, awareness of human possibilities, and exchange of ideas and products.

¹⁵⁵ Chandler, Alfred D. and James W. Cortada, *A nation transformed by information: how information has shaped the United States from Colonial times to the present* (New York: Oxford Univ. Press, 2000) pp. 58-59.

¹⁵⁶ As one scholar put it, terms such as information superhighway and Infobahn are "outmoded industrial metaphors that suggest an ignorance of the chaotic molecular structure of the hypertextual Web." See Vacker, Barry, "Global Village or World Bazaar?" in Goff, David and Alan Albarran (eds.), *Research and issues of the World Wide Web* (Ames, Iowa: Iowa State University Press, 2000) p. 227. In a speech delivered to The Superhighway Summit, Los Angeles, CA (Jan. 11, 1994), Vice President Al Gore said, "Incidentally, when I first coined the phrase 'information superhighway' 15 years ago, I was not prepared for some of the unusual images it would ultimately bring into our language." I leave it to others to debate whether Gore claims to have invented the phrase "information superhighway." Gore's speech is available at <http://artcontext.com/cal/97/superhig.txt>.

¹⁵⁷ Maya Lin, who has done some of the most imaginative and powerful works of art, sculpture, and architecture in the twentieth century, has recently stressed the importance of written words not just as parts of her physical, earthy works but also as part of her creative process. See Lin, Maya, *Boundaries* (New York: Simon & Schuster, 2000). Eastern European icons of Mary, the mother of Jesus, always include as part of the design the words Mother of God. This iconographic convention relates to an understanding of the power of written words, rather than a need to identify or characterize Mary. See Cantalamessa, Raniero, *Mary Mirror of the Church* (Collegeville, MN: The Liturgical Press, 1992), tr. by Frances Lonergan Villa from original work in Italian (*Maria: Uno Specchio per la Chiesa*), p. 62. For long-term evidence on the effects on different communications technologies, see Galbi, Douglas, "A New Account of Personalization and Effective Communication," available on <http://www.galbithink.org> and <http://www.ssrn.com>