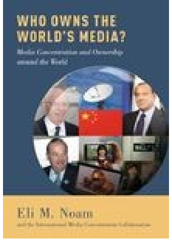

Who Owns the World's Media? Media Concentration and Ownership around the World

Eli M. Noam and The International Media Concentration Collaboration

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CHAPTER

38 Findings: The Questions Addressed, From A to Z

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Abstract

There are few industries whose ownership and control are more important than those of media, given their central role in social, cultural, economic, and political life. The preceding chapters have analyzed these industries. This chapter summarizes and interprets the findings across the world, and provides answers to the series of questions, from A to Z, posed in the introductory chapter. These questions include: how large is the media sector? What are the largest media markets? Is content really king? What are the levels of media concentration globally? Are the world's media becoming more concentrated? Have American media become more concentrated? Does the transition to Internet-based media reduce concentration? What countries have particularly high media concentration? Where is there a high pluralism of voices? What are the factors for high national media concentration? What countries have particularly high cross-media ownership? What countries are high importers and exporters of media? Do American media dominate world media? How does media concentration differ for emerging countries from that of richer countries? What are the trends of convergence among countries and among industries? What are the world's most dominant media companies? What companies dominate the attention for news? Who are the largest media owners? What are the priority problems? And lastly, what might policy remedies look like?

Keywords: media market, media industry, media companies, media concentration, media ownership
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Subject: Economic Sociology, Social Research and Statistics

Overview

There are few industries whose ownership and control are more important than those of media, given their central role in social, cultural, economic, and political life. The preceding chapters have analyzed media industries, companies, and countries. We have proceeded in a funnel-like fashion, developing the data for each country, and then aggregating and analyzing it along different dimensions. The findings across the world will now be summarized and interpreted, with some repetitions of previous sections.[1] This will answer the series of questions A–Z posed in the introductory chapter.

A. How large is the media sector?

Content media[2] accounted for a combined $735 billion, about 1% of the world's GDP, and platform media[3] accounted for $1.7 trillion, 2.3% of world GDP. Together then, media spending—both direct consumer spending and media advertising—added up to 3.3% of world GDP. To that we can add other media activities or related businesses. Music sales added up to $16.5 billion in 2012[4] and video games to $67 billion. Consumer electronics devices used in the consumption of media accounted for the following revenues: p. 1304 mobile phone handsets, $210 billion; consumer microcomputers, ↳ $160 billion; TV sets, $100 billion; and music players, $30 billion. If these are included, the consumption of media content, platforms, and devices is about $2.9 trillion, 5.9% of the 30-country gross world product of $61.2 trillion USD.

These are revenues on the platform/vendor/producer end. The price to end-users/consumers rises by the retail and wholesale markups for print media, film, music, games, and most consumer electronics. If we make a simplifying but fairly realistic assumption that the wholesale and retail distribution chain doubles the price of these content items and devices to consumers, the share in GDP rises to $3.6 trillion, or 7.3%. (There is, however, some double counting involved due to a vertical value chain, as is often the case in GDP and industry aggregations.)

This percentage still understates its actual weight. Much of household income is spent on necessities. In the United States, 30.43% of household income goes toward housing (excluding telecom), 12.81% on food, 6.92% on healthcare, 2.35% on education, and 17.5% on transportation, etc.[5] These necessities leave only 30% for discretionary categories of spending. Media spending, including telecom connectivity, thus accounts for almost 20% of discretionary spending, a substantial chunk.[6] It is even higher in terms of discretionary *time*. In the United States, average annual media consumption per person, as reported by the Census Bureau, has been measured to be an astonishing 3,545 hours per year for 2005–2009, not including time for e-mail and telephone calls, or 9.7 hours per day.[7] This number implies that media consumption—including background music, multi-tasking, and multi-media—would occupy or overlap with 60% of all non-sleep time, including work time, meals etc. Thus, media takes a major share of people's time and money.

B. What are the world's largest national media markets?

Overall, the United States accounts for 33% of the 30-country world media markets, by revenues. Following are Japan (9.9%), China (8.7%), Germany (6.1%), the United Kingdom (5.2%), France (4.5%), Spain (3.6%), and Canada (3.1%).

The content market is largest, by far, in the United States, with $268 billion, or 36.5% by revenue, followed by Japan ($63.9 billion, 8.7%), Germany ($56 billion, 7.6%), the United Kingdom ($58 billion, 7.9%), France ($37.5 billion, 5.1%), China ($35.3 billion, 4.8%), and Spain ($34.1 billion, 4.6%). China's content revenue value has increased greatly from 2004. India's content revenues grew substantially between 2004 and 2013, rising to $8.8 billion, 1.2% of the world total. So did Brazil's, from $10.7 billion in 2005 to $23.4 billion in the latest year, 3.2% of the world total.

The largest platform media markets are the United States ($521 billion, 31.4%), China ($173 billion, 10.5%), Japan ($172 billion, 10.4%), Brazil ($104 billion, 6.3%), Germany ($89.2 billion, 5.4%), and the United Kingdom ($66.5 billion, 4%). China's and India's ($34.7 billion, 2.1%) growth have been especially high, with market sizes nearly tripling in the period under review.

C. What are the largest media industries? Is content really "king"?

Is content king, as the cliché asserts? Actually, in no country do the top content companies have higher market power in their industries than platform companies do.[8] Similarly, in most countries, platform media revenues are on average three times larger than those of content media. In no country does content's revenue match that of platforms. It came closest in the United Kingdom and Sweden where content industries' share in overall media revenue is 46.6% and 46.4%, respectively. This ratio is lower in richer p. 1305 countries ↳ with competitive mobile communications (e.g., Sweden or Finland). On average, the top four content companies have an especially low proportion of overall media revenues in emerging markets: China (16.9%), Poland (13.5%), South Africa (19.1%), Turkey (17.8%), Mexico (15.8%), Egypt (15.8%), and Brazil (18.4%).

The largest media industries, by far, are mobile telecom ($740 billion, 30.9%) and wireline telecom ($590 billion, 24.7%), followed by multi-channel platforms (10.4%). Of content media, broadcast TV is largest (7.7%), followed by ISPs (6.8%), newspapers (4.5%), magazines (3.3%), book publishing (3%), video channels (3%), radio (2%), search engines (1.7%), film (1.3%), and online news (0.8%).[9]

Not only are platform media revenue streams larger, they are also more stable and face less competition and potential entry. Analogously, content media are smaller, relatively more competitive, and have usually lower barriers to entry. It is hard to view them as holding superior bargaining power, with a few exceptions such as for unique sports events.

Global Concentration Trends

D. What are the levels and trends of media concentration in different countries and industries?

The world average concentration levels are now summarized. For each country, we calculated average national concentrations for "all media," "content media," "platform media," and "news media." The latter was presented in two ways, by "revenues," and by "news attention." There are three steps to these calculations:

1. The countries' various industry concentration measures are provided in the country reports by their respective authors.
2. These figures are then aggregated on the national level by a weighted averaging, with the weights being each country's industries' share in that country's media sector.
3. The national averaged figures are then aggregated internationally. Two methods of averaging are used, weighted and arithmetic. Arithmetic averaging gives equal weight to each country whether large or small, and thus provides measures that approximate those of a typical country. In contrast, the weighted averaging takes account of the size of a country's media market, and thus approximates the concentration prevailing in the global media sector taken together.

The world average weighted concentration measures across industries and across countries are reported in Table 38.1. The arithmetic averages are provided in Table 38.1A in the Appendix. Findings now follow.

Table 38-1. National Media Concentrations—Weighted Country Average, 2012

	All Media	Platform Media	Content Media (W/Internet)	Content Media (W/O Internet)	News Media (by revenues)	News Media (by attention)	News Media by attention (W/O China)
HHI	3,253	3,711	2,219	1,999	1,987	5,194	3,089
C1	42.7%	47.7%	32.2%	30.0%	30.0%	60.2%	40.7%
C4	81.2%	87.7%	66.5%	65.0%	66.7%	80.4%	65.8%
Power Index	3,223	3,707	2,134	1,934	1,912	5,162	3,045
Noam Index			1,167	1,064	984	4,450	2,197
Voices			42	36	31	31	32
Cross-ownership			25.9%	24.4%	28.7%	28.7%	26.0%
Pooled HHI	1,884	2,982	863	993	969	3,811	1,473
Pooled C1	31.0%	41.7%	18.2%	19.5%	20.1%	51.6%	29.9%
Pooled C4	59.7%	78.5%	39.8%	42.4%	45.0%	69.6%	52.1%

Table 38-2. Average Annual Change in National Media Concentrations—Weighted Country (2004/5–2011/2)

	All Media	Platform Media	Content Media W/Internet	Content W/O Internet	News Media (by revenues)	News Media (by attention)	News Media by attention (without China)
HHI	0.51%	–0.51%	4.22%	3.08%	2.17%	–0.12%	0.02%
C1	0.12%	–0.80%	2.89%	2.20%	1.46%	–0.08%	0.02%
C4	0.93%	–0.59%	1.48%	1.35%	1.12%	0.23%	0.31%
Power Index	0.60%	–0.53%	4.88%	3.71%	2.68%	–0.19%	–0.14%
Noam Index			6.35%	5.26%	3.57%	–0.29%	–0.06%
Voices			0.39%	0.30%	0.17%	0.17%	0.17%
Pooled HHI	2.44%	–0.08%	5.03%	6.57%	4.11%	–0.13%	–0.36%
Pooled C1	0.01%	–1.11%	3.26%	4.07%	3.04%	–0.17%	–0.08%
Pooled C4	0.93%	–0.20%	1.46%	1.93%	1.57%	0.10%	0.20%
Cross-ownership			0.13%	0.20%	1.00%	1.00%	0.88%
Trend Average	0.79%	–0.32%	3.32%	3.27%	2.31%	–0.05%	0.00%

The weighted world average HHI for the overall media sector is a very high 3,253, up from 3,125 in 2004/05.[10] The arithmetic average, which reduces the weight of large countries such as the United States, China, and India, is 3,729. These numbers are considerably above the threshold of a "highly concentrated" industry of antitrust enforcement standards (HHI > 2,500, weakened in 2010 from 1,800). In 2013, the five countries with the highest average media industry HHIs were China (9,700), South Africa (5,535), Mexico

(5,315), Turkey (5,150), and Egypt (5,041). The lowest average concentrations measured were for the United States (1,517), Canada (2,506), France (2,694), Brazil (2,773), and the Netherlands (2,754).

For content media, the world average weighted HHI is much lower, at 2,219 (and 1,999 without the Internet media of search engines and online news). But it has also been rising considerably, up from 1,660 and 1,603,
p. 1306 respectively. ↳

p. 1307 ↳

For platform media, country weighted HHI has been slightly decreasing from a very high 3,869 to 3,711. The arithmetic HHI averages were still higher, 2,907 for content and 4,026 for platforms, reflecting the lesser downward pull on the international average by the United States.

The top four companies in platform media accounted, by weighted-country average, for a dominant 81.2% of their particular market. For content media markets the figure was 66.5%, also high but lower than for platforms. The gap is still higher for the pooled C4 for the sector, where the top four firms account for 78.5% of platforms and 39.8% of content, a difference close to 40%.

When it comes to news media, we find that concentration is very high in most countries, with a world average HHI of 5,194 when measured by attention time.[11] Because population size heavily affects attention measures, we also calculate the average without China due to its unusual characteristics. The news media HHI concentration by attention is then measured at 3,089, a very high figure.

On average, the national pooled C4 (i.e., the top four companies in the overall combined market of the 13 industries) for the world is 59.7% weighted by country (up from 55.5% in 2004), which means that on average, four companies control over one half of each country's 13 national media industries, combined. This is an astonishingly high percentage and it is based on the large size of platform media and their high concentration. In the United States, that pooled C4 is 42.7%, with AT&T[12] holding 15.8%; Verizon'[13] 13.3%; Comcast[14] 9.5%; and Time Warner Cable'[15] with 4.2%. Google has 1.3%. For the United Kingdom, the pooled C4 is 42.7%; for Germany, 49.9%; France, 61.9%; India, 62.2%; Japan, 66.8%; and China, 98.5%.

The share of the top firm in each country's national media market, as measured by the pooled C1 ratio weighted by country, is 41.7% for platforms, while for content media it is 18.2%, and for news media, by revenue, it is 20.1%). Without China, the country weighted world average pooled C1 for attention is lower, at 29.9% (with China, it is over 50%).

An important reason for the high overall media numbers is the large size of the platform media—wireline, wireless, ISPs, multi-channel platforms—coupled with their generally high market shares held by two or three firms. Pooled platform C4 in international average weighted by countries is a very high 78.5%. In contrast, the pooled content C4 concentration weighted by countries is 39.8%.

If we look at the "unpooled" measures, that is, averaged across industries (and hence with a different set of companies for each industry), the C4 for all media is a huge 81.2%; for platforms, it is 87.7%; for content media, 66.5%; and for news media, 66.7% by revenues, 65.8% for attention excluding China, and 80.4% with China. The arithmetic averages are even higher.

These are all high numbers. They are those of oligopolistic markets. For the average industry in the average country, barely a handful of companies control most of the markets. For the United States, the pooled C4 for content is 24.7%, whereas it is 91% for China. In be-tween are Italy (59.7%), Russia (55.3%), Poland (48.1%), Japan (38.2%), India (37.6%), Germany (40.7%), France (39.3%), and the United Kingdom (47.7%).

E. Are the world's media becoming more concentrated?

As the preceding section shows, the concentration numbers are high in almost every country. Has this concentration been declining or rising still further? The changes in the various measures of concentration show the following annual change, averaged over the recent past nine years or so (depending on the available time series). The changes in average national media concentration, in terms of annual percent
p. 1308 change, are given in Tables 38.2 and 38.3. ↳

p. 1309 ↳

Table 38-3. Average Annual Change in National Media Concentrations—Arithmetic (2004/5–2011/12)

	All Media	Platform Media	Content Media W/Internet	Content W/O Internet	News Media(by revenues)	News Media (by attention)	News Media by attention (without China)
HHI	–2.23%	–2.89%	0.20%	–0.75%	–1.13%	–0.74%	–0.86%
C1	–1.61%	–2.13%	0.15%	–0.49%	–0.76%	–0.46%	–0.52%
C4	0.07%	–0.03%	0.18%	0.04%	–0.05%	–0.15%	–0.18%
Power Index	–2.08%	–2.82%	0.34%	–0.67%	–1.03%	–0.82%	–0.94%
Noam Index			0.05%	–1.06%	–1.52%	–0.81%	–1.01%
Voices			0.51%	0.41%	0.23%	0.23%	0.23%
Pooled HHI	–2.30%	–2.87%	–2.09%	–0.74%	–1.37%	–0.71%	–1.01%
Pooled C1	–2.43%	–2.80%	–1.39%	–0.55%	–0.81%	–0.56%	–0.67%
Pooled C4	–0.41%	–0.30%	–0.77%	0.08%	–0.15%	–0.02%	–0.05%
Cross-ownership			0.18%	0.26%	1.33%	1.33%	1.17%
Trend Average	–1.57%	–1.98%	–0.48%	–0.44%	–0.76%	–0.49%	–0.60%

p. 1310
Content Media Concentration Trends

- For content media, average national HHI industry concentration rose by an annual rate of 4.2% per year, a fairly strong rate.[16] That increase was mostly due to search engines. If we exclude the Internet sector, content concentration rose by a still strong 3.1% per year.[17]
- If we look at the C4 concentration measure, which does not have the exponential nature of the HHI that magnifies increases, the average annual increase for content media is a substantial 1.5% (and 1.4% without Internet media). In other words, the top four firms increased collectively their share by 1.5%. The top firm increased its share by twice that amount (2.9%).
- What drives these increases?

  1. A strong rise in content concentration in the United States;
  2. A strong rise in the weights of China and India (even as their concentration measures slightly decline);
  3. Rises in Turkey, Italy, Argentina, Canada, the Netherlands, Switzerland, and others. Only a few countries had offsetting reductions—Mexico, South Korea, Taiwan, Egypt, and Finland, mostly from very high levels to still high ones.

- The HHI of pooled content media rose by 5% per year, which suggests a strong increase in the overall position of major media conglomerates. The top companies increased their collective market shares, with pooled C1 and C4 rising by hefty 3.3% and 1.5% per year, respectively.
- The power index for content media grew by 4.9% per year (3.7% without Internet), a high number. In comparison, the power index for platform media was slightly declining (−0.5%). If we look at the arithmetic average (which gives a greater weight to small countries), a similar gap exists, but at a lower base—content power index growth is 0.3% per year, and for platform media it declines by -2.8%. HHI, C4, and C1 are rising at about 0.2%, i.e. at a slower rate, indicating that increases are driven, in particular, by the larger countries.
- The world average of net voices per country has slightly increased. On an arithmetic average, each country has 42 independent content media producers (up from 41) active in its national media market and possessing at least 1% in one of that country's media industries. (Several of these voices may be owned by foreign firms.) The number of voices, on average, rose 0.4% per year.

Platform Media Concentration Trends

- For platform media, average weighted industry HHI concentration declined by -0.5% per year. On the basis of arithmetic averaging, it fell more strongly, by -2.9%.
- The share of the top four firms (C4) declined by 0.6% per year, and that of the top firm (C1) dropped by 0.8%.
- The dominance of the top firm (pooled C1) in a platform industry weighted by countries declined by -1.1% per year, and the share of the top four (pooled C4) dropped by a lower 0.2%. This suggests a shift from near-monopoly to oligopoly.

p. 1311
News Media Concentration Trends

- Average country-weighted national news media HHI industry concentration, based on attention time, and without China, rose very slightly by 0.02% per year. It rose much more (2.2% per year) for news media by revenues, driven by rises in the large countries, and is negative for the arithmetic average.

F. What are the overall concentration trends of media industries?

- Overall, the average country-weighted national media industry rose in HHI concentration by 0.5% per year, driven by the increase in content concentration that was higher than the downward pull of the platform media's despite their greater size.
- The top firm in a pooled (all-industries) country market gained very little, (on average, 0.01% per year). But the top four firms, whether by a pooled or industry-averaged measure, gained over 0.9% per year.
- In conclusion: average HHI concentration for content media rose by an annual 4.2%, while it declined by an annual -0.5% for platforms. The overall trend towards increased world concentration for all media was 0.5% per year. The C4 measures rose 1.5% per year for content media and dropped 0.6% for platforms.
- The picture is more positive in an arithmetic averaging (Table 38.3). HHI concentration for platform media declined by a robust -2.9%. For content media, it rose by a moderate 0.2%. For news media, concentration declined (if measured by revenues) by -1.1%, and about -0.7% by attention. The top firm (pooled C1) lost -2.4% (-2.8% in platforms and -1.4% in content).

Table 38-5. US Media Concentration Trends, Per Annum Changes (2004–2013)

	All Media	Platform Media	Content Media W/Internet	Content W/O Internet	News Media (by revenues)	News Media (by attention)
HHI	1.23%	−0.24%	6.89%	4.94%	4.32%	2.43%
C1	−0.37%	−1.37%	2.41%	1.46%	0.57%	−0.15%
C4	1.79%	1.26%	2.68%	2.67%	2.37%	1.36%
Power Index	0.77%	−0.63%	6.20%	4.59%	3.63%	1.77%
Noam Index			8.91%	5.87%	5.40%	3.59%
Voices			0.60%	−1.13%	−0.46%	−0.46%
Pooled HHI	1.02%	−1.17%	4.42%	5.44%	4.18%	3.50%
Pooled C1	−1.16%	−1.85%	0.17%	3.41%	2.83%	1.52%
Pooled C4	1.12%	0.00%	0.35%	2.32%	1.69%	2.38%
Cross-ownership			−0.46%	−0.34%	0.29%	0.29%
Trend Average	0.63%	−0.57%	3.30%	3.55%	2.80%	1.83%

The trends can also be presented as absolute changes per year (rather than as rates of change, i.e., as a percent change of a percentage). See Tables 38.4A and 38.4B in the Appendix. On average (arithmetic), the top single platform company in a country lost -1.3 points of market share each year, while the combined share of the top four firms stayed almost flat (-0.03). In content media, the top firm gained 0.06 points per year; the top four firms gained 0.14. The increase in average voices was fairly small (0.2). For news media by
p. 1312
revenues and attention, the top firm lost ↳ each year about -0.2 points, respectively, the C4 decrease was of a lesser magnitude, and pooled C4 ownership increased by 0.4 points p.a. The top four companies in a content industry have, on average, raised their combined market shares by 0.14 points per year. Half of it is attributable to the largest firm.

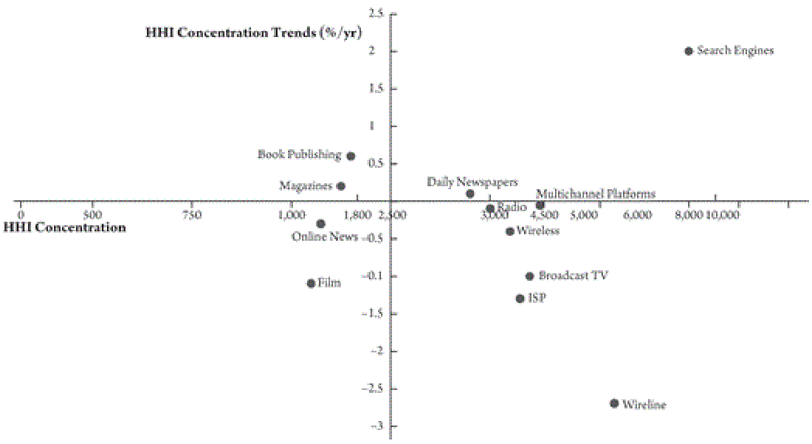
Table 38-4B. Absolute Change in National Media Concentrations—Arithmetic (2004/5–2011/12)

	All Media	Platform Media	Content Media w/Internet	Content w/o Internet	News Media (by revenues)	News Media (by attention)	News Media by attention (without China)
HHI	–96.05	–141.04	5.77	–21.00	–34.01	–23.36	–25.23
C1 (%)	–0.86	–1.29	0.06	–0.20	–0.32	–0.20	–0.21
C4 (%)	0.07	–0.03	0.14	0.03	–0.04	–0.12	–0.14
Power Index	–88.04	–136.14	9.65	–18.58	–30.44	–25.38	–27.35
Noam Index			0.75	–16.54	–25.38	–14.52	–15.47
Voices			0.21	0.14	0.07	0.07	0.07
Pooled HHI	–48.66	–100.82	–27.11	–10.06	–21.87	–11.81	–14.34
Pooled C1 (%)	–0.92	–1.43	–0.36	–0.15	–0.24	–0.17	–0.18
Pooled C4 (%)	0.28%	–0.26	0.39	0.04	–0.09	–0.01	–0.03
Cross-ownership (%)			0.05	0.06	0.35	0.35	0.28

We can depict the concentration trends and level of different industries.

Graph 38.1 shows the position and direction of concentration of media industries. The horizontal axis shows the existing concentration levels as represented by the HHI for the weighted world average of an industry. The vertical axis depicts the average annual change in that industry for the six-year period 2004/05 to 2011/12 or more recent. The graph is log-normal, since the HHI is an exponential measure.

Graph 38.1



Media Industry HHI Concentrations and their Trends

The graph shows, first, that there is almost no media industry where concentration is both low and falling (the south-west quadrant). The exceptions seem to be film and online news. The figures for film, however, are somewhat misleading. It is true that on the country level typically no company dominates and a handful of companies form an oligopoly, each with about 10–20%. The problem is, however, that this small group is usually the same six companies everywhere, namely the Hollywood majors. When we look at the media industries globally, we find that the film industry is the second highest in worldwide concentration, with only search engines having a higher score. The top six companies hold 76.4% of the world's pooled film revenues. Hence, one cannot really consider the film industry to have a low concentration.

The other low/negative concentration growth industry is that of online news, but only barely so. It is similar for several industries where concentration is low but slightly rising—magazines and book publishing. In a larger number of industries, concentration is high but falling—wireline, wireless, broadcast TV, and ISP. These are intermediate situations where it is not clear, without additional facts and considerations, whether a long-term problem exists. Most problematic is the north-east sector: here, concentration is high and rising. This is an issue in just one industry, that of search engines.

G. Have American media become more concentrated?

Table 38.5 shows the concentration trends in the United States.

Content Media

- US content media industry concentration rose by 3.3% p.a., over the nine years 2004 to 2013, when all indices are averaged together. It grew by 6.9% per year for the HHI, a strong rise (but recall the exponential nature of the HHI). Without Internet media, the annual HHI increase was still a high 4.9%.
    - The increase was driven by the audiovisual industries' growing concentrations: HHI rose in broadcast TV, video channels, and multi-channel platforms.
- The increase was also high for the content power index (6.2% p.a.), the pooled HHI (4.4% p.a.), and C4 (0.35% p.a.), indicating an increase in conglomeration.
- The combined market share of the top four content firms rose, on average per industry, by 2.7% p.a. The average trend across all 8 indices was a decline of 0.6% p.a.
- The share of the top single firm in the content market rose strongly, too, though not faster than that of firms number 2–4.
- The number of net voices grew at a pace of 0.6%.

Platform Media

- Average industry HHI concentration fell by -0.2% per year. Most other indices fell as well, in particular, the indicators of cross-platform ownership (inter-industry pooled C1 (-1.9%) and the national power index (-0.6%)).
- While the top firms lost market share (C1 down by 1.4% p.a.), the aggregate for the top four rose by 1.3%.
- The information in chapter 18 (USA) shows that the platform concentration in the United States
p. 1313 trended in as "S-shape," first dropping in the mid-1980s through regulation and entry, ↳

p. 1314 ↳

then rising again as incumbents reasserted themselves, merged, and as the fragmented mobile market consolidated, followed by a smaller U.

A News Media

- News HHI concentration rose by 4.3% per year by revenues and 2.4% by attention. It was lower for the top firm's share. It was high for the pooled C1s and C4s as well as the national power index measures, indicating that cross-media ownership trends were strong (0.3% increase p.a.). The average of the eight indices was a rise of 1.8% (by attention) or 2.8% (by revenue).

Overall US Media

- Overall media concentration in the United States rose over the nine years, by an average rate of 1.2% per year for the HHI measure, and on average, for the eight indices, at 0.6%.
- The share of the top firm in an industry, on average, fell by -0.4% per year, but the combined share of the top four firms rose by 1.8% per year. (The absolute increase is discussed below).
- The MOCDI Index shows for content a high growth of 8.9% per year (5.9% without Internet) and of 5.4% for news media by revenues. The growth in voices in the United States was 0.6%, higher than it was worldwide (0.5%). But the US growth in content media HHI concentration was also higher than the international average, and as a result the MOCDI measure of pluralism rose in the United States faster than it did on average worldwide.
- The power index, as a measure for cross-industry conglomeration, rose in the United States by a hefty 6.2% for content media, much higher than the worldwide trends of 0.3% arithmetically.

We can also calculate the increases in the various shares and indices on an absolute basis (Table 38.6 in the Appendix). The C1 firm in a content industry gained in the United States, on average, market share of 0.4 points each year, and an added 1.6 points in the pooled share. The top four firms gained 1.3 points in their markets weighted, and 3.2 pooled. This was mostly due to consolidation of audiovisual media by the top domestic companies.

Table 38-6. US Media Concentration Trends, Absolute Changes (2004–2013)

	All Media	Platform Media	Content Media w/Internet	Content w/o Internet	News Media (by revenues)	News Media (by attention)
HHI	18.93	−4.86	51.67	31.91	29.38	18.60
C1 (%)	−0.11	−0.48	0.44	0.25	0.10	−0.03
C4 (%)	1.16	0.95	1.25	1.19	1.08	0.68
Power Index	11.94	−12.94	46.35	29.45	24.93	13.65
Noam Index			22.75	11.98	11.36	8.35
Voices			0.38	−0.63	−0.25	−0.25
Pooled HHI	6.48	−17.31	8.94	10.94	9.89	11.68
Pooled C1 (%)	−0.23	−0.58	1.54	0.29	0.27	0.16
Pooled C4 (%)	0.49	0.00	3.15	0.57	0.44	0.78
Cross-ownership (%)			−4.15	−0.15	0.13	0.13

For platform media, the top firm lost about -0.5 of market share each year. For news media, the top four firms gained each year 0.7 points by attention and 1.1 points by revenues.

In conclusion, the concentration trend of platform media shows a decline by -0.6% per year, while content media rose by 3.3%. The absolute levels in the United States were still lower than the world average. But the difference has been getting smaller. (US weighted average C4 gained 1.8% per year, twice the world average of 0.9%).

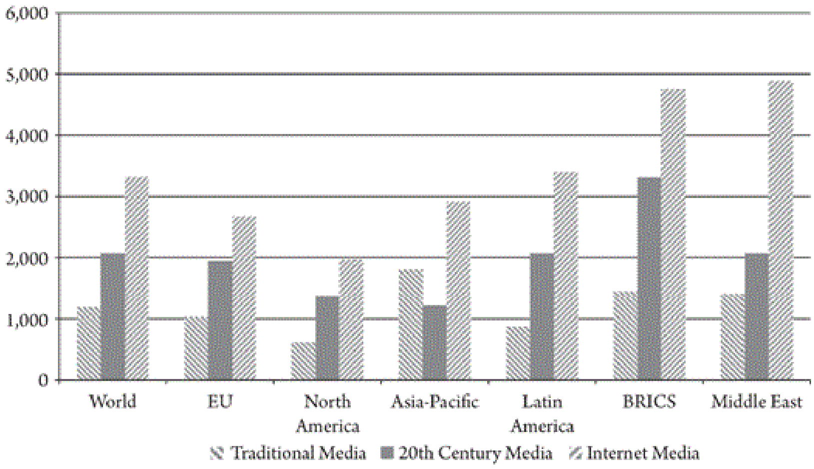
For Europe, concentration trends were also investigated and interpreted. This is presented in chapter 33 of this volume.

H. Does the transition to Internet-based media reduce concentration?

The conventional wisdom is that new media is less concentrated than legacy media. But that is not what the data show.

Graph 38.2 shows media concentrations for three types of media: (1) *traditional media*, such as newspapers, books, and magazines (print); (2) *twentieth-century audiovisual media*, such as film, radio, TV, cable TV; and (3) *Internet media*, such as online news, search, and ISPs. Graph 38.2 shows that each newer generation of media is more concentrated than the preceding ones. This is true in almost all of the world's regions. Traditional media on average has a national concentration index, worldwide, of about 1,100—which is almost unconcentrated. Twentieth-century audiovisual media has a concentration index of about 2,000, which is already highly concentrated (the threshold is 1,800). And Internet media has an index of over 3,000, which is very highly concentrated.

Graph 38.2



Old and New Media–Average Concentration by Region

The ISP market is highly concentrated, worldwide, with the arithmetic average HHI standing at 3,616 (down from 3,829 in 2004/05) and ranked sixth out of all industries for concentration. The search engines industry p. 1315 ↳ is the most concentrated media industry of all. Its average HHI concentration was an extraordinarily high 7,760 in 2013, up from 6,809 in 2004/05.

In the handful of countries where Google is not the dominant search engine, the largest search engine by volume tends to be one based in that country, and they too, hold huge market shares. Baidu is the largest search engine in China, holding 78.6% of the Chinese market share. The top search engines in South Korea are those of NHN, with 68.8% of the market. In Russia, Yandex controlled 47.1% of the market, followed by Mail.ru (34.8%).

This observation about search engines raises an important question. Do the new Internet media make a difference on media industry concentration, in the way its enthusiasts believe? Internet media, after an early stage of a dynamically competitive market structure, often become highly concentrated. Various market segments have their dominant players—Amazon, EBay, Microsoft, Google, Facebook, Twitter, YouTube, Apple's App Store, and others. The Internet sector was believed to be wide open and competitive and would open things up for other industries, but it exhibits strong concentration trends. The underlying economics on the supply side are, high fixed cost and low marginal cost; and on the demand side, strong network effects. Because these factors will remain, this trend is likely to continue, especially if the pace of disruptive innovation in the sector slows down a bit.

Online news media are less concentrated than newspapers, though not in all countries. In the United States, the incumbency advantage of the major multimedia producers means that online news is more concentrated as the daily newspapers industry, though less concentrated than for broadcast TV news. Around the world, many major online news companies were successful due to their pre-existing strong brands in print news, coupled with economies of scope in extending traditional news operations to the online mode.

In many countries, online news media HHIs are actually higher than print dailies' HHIs. This is the case in the United States (569 for online news, 304 for newspapers), Italy (2,188 for online news, 1,863 for newspapers), Germany (1,521 versus 558), Japan (1,965 versus 762), Turkey (3,052 versus 2,637), India (1,996 versus 1,228), Spain (1,382 versus 1,090), South Africa (2,471 versus 2,450), and Brazil (2,916 versus 2,321). In fairness, the analysis deals with "commodity news" rather than with specialized online p. 1316 information sources. But ↳ such "long tail" information does not negate the fact that most online news attention by national audiences is focused on a few mass-audience outlets.

On the negative side of the ledger is that revenues for online news, on a per capita basis, are dismal in comparison to print news. In the United States, for example, the annual revenue on a per capita basis is $132 for print newspapers and only $26.5 for online news. In Japan with $191 the annual revenue on a per capita basis for print newspapers is higher than that in the United States, but for online news, with annual revenue per capita of $14.2, it is performing even lower. This also is true for Switzerland ($256 versus $13.9) and Spain ($167 versus $0.5). Similarly large ratios exist in Taiwan ($28.1 versus $2.7), the United Kingdom ($184 versus $24.4), Israel ($42.8 versus $4.7), Germany ($69.1 versus $4.8), Chile ($48.4 versus $2.7), South Africa ($26.5 versus $2.7) and Canada ($151 versus $2.9). Globally, for the reporting countries, it is $76.2 for newspapers versus $8.2 for online news. Only in China ($0.68 for online news, $0.48 for newspapers) and in Russia ($6.54 for online news and $3.58 for newspapers) are the ratios reversed. Given such low revenues, the likely market scenario is one of the larger providers surviving due to scale advantages and network effects, and because they could charge the users more easily for content, and the advertisers more for placement.

One must therefore conclude that the Internet does not overcome the problems of media concentration. To the contrary, it may accelerate it.

National Media Concentrations

I. What countries have particularly high media concentrations?

As mentioned, China, Egypt, and South Africa have particularly high average overall concentration, due to considerable state ownership of media (Table 38.7). In 2013, the five countries with the highest average industry HHIs were China (9,700), South Africa (5,535), Mexico (5,315), Turkey (5,150), and Egypt (5,041). The lowest concentrations measured were for the United States (1,517), Canada (2,506), France (2,694), the Netherlands (2,754), and Brazil (2,773).

Table 38-7. Weighted Country HHIs, 2011 or Most Recent

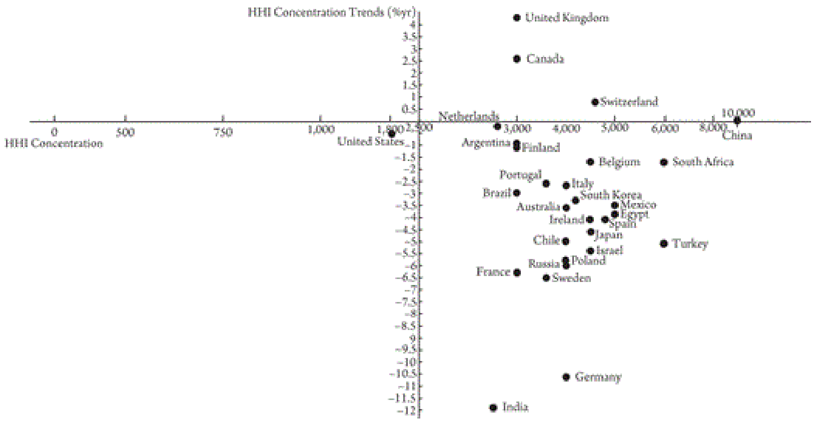
	All Media	Platform Media	Content Media	Content Media W/Internet	News Media (by attention)	News Media (by revenue)
Argentina	3,151	3,840	1,914	1,540	1,468	1,541
Australia	4,238	4,796	3,150	2,827	2,877	3,110
Belgium	3,351	3,815	2,098	2,098	1,833	1,685
Brazil	2,773	2,846	2,453	2,255	2,264	2,359
Canada	2,506	2,729	2,046	1,826	1,742	1,849
Chile	3,607	3,781	3,318	3,169	2,907	3,175
China	9,700	10,000	8,224	8,585	9,181	7,661
Egypt	5,041	5,328	3,510	3,291	7,310	4,199
Finland	2,793	2,949	2,576	2,259	2,495	2,301
France	2,694	2,868	2,373	2,213	2,688	2,459
Germany	3,001	3,468	2,257	1,914	2,164	2,445
India	2,935	3,001	2,673	2,394	4,677	2,492
Ireland	3,956	4,084	3,736	3,520	3,934	3,601
Israel	3,517	3,759	2,842	2,672	2,732	2,765
Italy	3,667	3,957	3,129	3,200	3,340	3,878
Japan	3,328	3,924	1,725	1,534	1,471	1,540
Mexico	5,315	5,603	3,778	3,750	3,918	4,266
Netherlands	2,754	2,628	3,044	2,455	2,658	2,488
Poland	3,877	4,106	2,416	1,538	1,955	1,591
Portugal	3,550	3,584	3,504	3,226	3,075	3,276
Russia	4,091	4,240	3,497	3,771	3,852	3,853
South Africa	5,535	5,910	3,945	3,764	4,137	3,724
South Korea	4,036	4,110	3,726	3,475	2,810	3,789
Spain	2,867	3,679	1,606	1,257	1,478	1,409
Sweden	2,881	3,246	2,459	2,233	2,629	2,442
Switzerland	3,807	4,341	2,677	2,453	2,264	2,489
Taiwan	3,375	3,802	1,830	1,807	2,408	2,131
Turkey	5,150	5,600	2,907	2,420	2,443	2,458
UK	2,871	3,043	2,674	2,474	2,632	2,730
US	1,517	1,742	1,080	830	828	839
Arithmetic Average	3,729	4,026	2,906	2,692	3,006	2,818
Country Weighted Average	3,254	3,711	2,219	1,999	5,194	1,987

Looking at content media only, China has the highest average concentration at 8,224. Also high are South Africa (3,945), Mexico (3,778), Ireland (3,736), and South Korea (3,726). The lowest average content industry concentrations are in the United States (1,080), Spain (1,606), and Japan (1,725).

For platform media, the list of the highest concentration countries is similar: China (10,000), South Africa (5,910), Mexico (5,603), Turkey (5,600), and Egypt (5,328). The lowest concentrations are in the United States (1,742), the Netherlands (2,628), and Canada (2,729). The United States is the only country whose average platform concentration is below the antitrust standard of “highly concentrated,” but barely so.

Graph 38.3 shows HHI concentration and the trend for platform media.

Graph 38.3

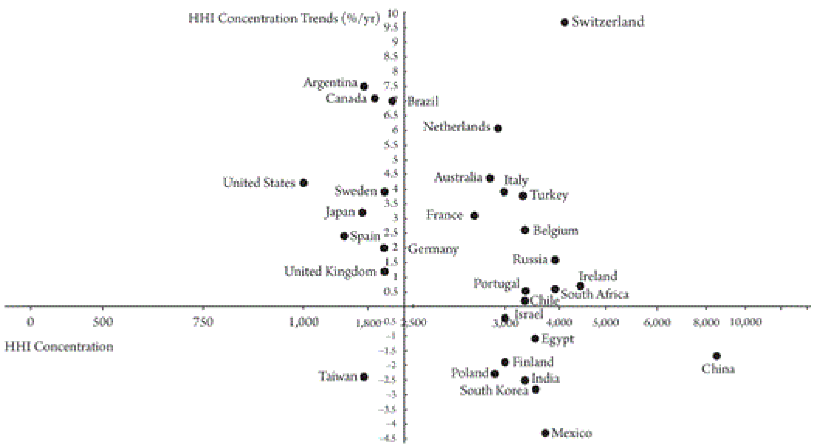


Platform Media HHI Concentration and its Trends

One can readily see how concentrated the platform sub-sector is—its industries are typically in the HHI range of 3,000–6,000. A second observation is that in almost all cases, this concentration is declining, often quite substantially. That reduction is low for the United States, but that country also has the lowest concentration as a base. Concentration is both high and rising for the United Kingdom, Canada, and Switzerland. Only the United States is in the southwest quadrant.

A similar presentation is made in Graph 38.4 for content media. The HHI concentrations for content media as well as its trends are shown.

Graph 38.4



Content Media HHI Concentration and its Trends

- Only one country—Taiwan—is in the south-west quadrant, where concentration is low and falling.
- Under the previous definition of high concentration (HHI = 1,800), only one country (the United States) was in the low concentration sector, though with a substantial rise. Under the substantially more lenient recent definition (HHI = 2,500), 9 more countries are below that threshold. ↳

p. 1317

p. 1318 ↳

p. 1319

- ↳ A number of countries are highly concentrated, but the trend is one of a reduction. These are China, Mexico, India, South Korea, Poland, Finland, and Egypt.

- Several countries are both highly concentrated (or nearly so) and rising. These problematic cases are Switzerland, the Netherlands, Australia, Italy, Turkey, France, and Russia. South Africa and Ireland are highly concentrated to the point that even with a low growth trend in their HHI there is a problem.

The national media power index, which incorporates cross-ownership media power by the same company
p. 1320 or organization, is even relatively ↳

p. 1321 ↳

p. 1322 ↳

higher for China[18] (9,702), South Africa (5,536), Mexico (5,298), Turkey (5,143), Egypt (4,774), and South Korea (4,092) (Table 38.8). The countries with the lowest national media power index are Spain (2,844), the Netherlands (2,726), Germany (2,603), France (2,524), and the United States (1,482).

Table 38-8. National Power Indices, 2011 or Most Recent

	All Media	Platform Media	Content Media	Content Media W/O Internet	News Media (by attention)	News Media (by revenue)
Argentina	3,366	4,064	2,114	1,748	738	1,772
Australia	3,984	4,524	2,930	2,594	1,628	2,833
Belgium	3,355	4,004	2,113	2,113	835	1,701
Brazil	2,868	2,896	2,746	2,583	1,055	2,698
Canada	3,251	3,828	2,215	1,983	616	2,026
Chile	3,319	3,449	3,113	2,906	1,287	3,003
China	9,702	10,000	8,234	8,596	8,977	7,685
Egypt	4,774	5,015	3,488	3,269	5,092	4,170
Finland	2,861	3,095	2,533	2,215	1,069	2,257
France	2,524	2,888	1,852	1,673	1,228	1,926
Germany	2,603	3,098	1,814	1,444	697	1,818
India	2,922	3,020	2,673	2,402	4,145	2,496
Ireland	3,650	3,656	3,642	3,430	2,024	3,511
Israel	3,591	3,875	2,800	2,627	1,253	2,729
Italy	3,654	3,953	3,101	3,180	1,992	3,857
Japan	3,274	3,922	1,531	1,535	539	1,491
Mexico	5,298	5,407	3,699	3,672	2,017	4,171
Netherlands	2,726	2,676	2,842	2,232	1,134	2,234
Poland	3,869	4,010	2,965	2,154	868	2,271
Portugal	3,468	3,531	3,382	3,097	1,551	3,010
Russia	4,092	4,201	3,654	4,023	1,674	3,959
South Africa	5,536	5,914	3,932	3,759	2,650	3,710
South Korea	3,997	4,074	3,677	3,417	1,235	3,764
Spain	2,844	3,675	1,564	1,212	599	1,383
Sweden	2,887	3,284	2,427	2,200	1,225	2,324
Switzerland	3,690	4,180	2,652	2,427	1,040	2,474
Taiwan	3,408	3,856	1,789	1,756	1,350	2,122
Turkey	5,143	5,599	3,033	2,400	849	2,613
UK	2,888	3,043	2,711	2,515	1,226	2,741
US	1,482	1,711	1,035	806	273	809
Arithmetic Average	3,701	4,015	2,875	2,666	1,696	2,785
Arithmetic Average	3,223	3,707	2,135	1,934	4,450	1,912

Of course, when comparing countries one needs to take account of various factors such as population, geographic size, income, education, and so on. When we account for those factors (see the preceding chapter of "Analysis of Media Concentration"), we can identify concentrations that are higher (and lower) than would be predicted by the country variables.

The findings show that China and India are the two extremes, with China the highest and India the lowest in divergence of actual concentration from the one predicted by socio-demographic and other factors. Furthermore, they have moved in opposite directions, with China's media growing somewhat more concentrated than predicted while India has been moving the other way, to the lowest concentration relative to prediction. India is less concentrated than the United States, factoring in its poverty, low average education, population size, and so on.

Looking at news media only, the countries with the highest such concentration, whether by revenue or attention time, are China, Russia, India, South Africa, Italy, Egypt, Mexico, Russia, and Ireland. The least concentrated are the United States, Spain, Argentina, Japan, and Canada. It is rising in the United States and Canada, but falling in Japan, Argentina, and Spain.

The Government of China, through its several media organizations, accounts for a truly vast share of the global news attention. In the aggregate, it has 29.7% of global news attention in 2013 for the 30-country world and about 19% of the entire world. Even if we unbundle China's news organizations, the state TV broadcaster CCTV alone would still command 11.1% (or 7.1%) of the world's news attention and be the second largest news media company in the world. The explanations for these high shares are simple: a huge population (1.3 billion), relatively good access to media (print, audiovisual, and Internet) compared to other emerging countries like India, and state control over most news media outside some online portals and print magazines. This share by the Government of China over the world's news attention, through its domestic dominance, is truly extraordinarily high.

J. Where is there a high pluralism of voices, and why?

Most countries had a "net" voice count between 30 and 60. But the absolute number of net voices must also be seen in relation to a country's market size. The United States had the highest number of net voices, with 59 voices. (40 of its 99 overall voices are cross-owned).

But on a per capita basis the United States actually ranks quite low, due to its population size. The European countries' average of voices per capita per million people (3.1) is over twice as high as the North American (0.8). One explanation is that countries with a high count of voices per capita tend to be relatively small in population but with active politics and culture. Europe has many such countries, for example, Finland,
p. 1323 Sweden, Ireland, and Portugal. The same factors hold true for Israel and Australia. Another explanation for ↳ the often higher ratios of smaller countries is more methodological in nature: the definition of voices is relative to the size of the national market (1% of one of a country's media industries), and hence this threshold becomes higher for large countries. This is discussed in the chapter on "National Media Concentrations Compared."

On the other extreme are countries that are large, as well as poor and sometimes non-democratic. The reported number of voices per capita is the smallest—in India, Brazil, and Mexico—and is amazingly low in China.

Ireland, Finland and Switzerland have the highest number of voices per capita (with the definition of voices relative to market size), followed by Belgium, Portugal, and Israel. Complicating this comparison is that many media voices in Ireland, Portugal, Belgium, and Switzerland are spillovers from the adjoining countries (the United Kingdom for Ireland; Spain for Portugal; France and the Netherlands for Belgium; and Germany, France, Austria, and Italy for Switzerland), rather than domestic in origin. If the spillover media from neighboring countries were counted for Israel too, it would have the highest number of voices per capita.

The absolute number of voices is generally higher in large countries. A larger population is likely to support a larger number of media. To estimate the diversity of the media supply side in a country, a good measure is therefore the number of media voices (net) per capita. Where such a value is high, it means that the country produces pluralism, given its size. The number of voices rises with population, though at a much slower pace. A doubling of population raises the number of voices by about 6.4%, or about 3–4 voices. This is not a very steep increase. However, as mentioned, the definition of voices is relative (1% of a national media industry). If we hold that definition constant in terms of size (and exclude China as an anomaly), we find that for each doubling of population, the number of voices rises by about 7.5.

Even with a static definition of a voice, smaller countries have more voices per capita. These smaller countries are able to support voices at a scale that does not seem sustainable in larger countries. It must therefore be not absolute size but relative size with its negative impact on competitiveness—factors such as economies of scale and network effects—that make it harder for smaller voices to survive in large countries. In that sense, the larger countries under-perform in terms of sustaining voices. And this suggests that in an increasingly global media system, the number of voices *per capita* will decline, and the aggregate number of voices will decline. On the positive side, users will have more options in a global media system than they had in a national market. But on average, the national production of media voices will decline as media markets become more global.

K. What are the factors for high national media concentration?

One must distinguish between differences in concentration among the various media industries and the differences in concentration among countries within a given industry.

How can the market concentration of different industries be explained? We show further below that this concentration is correlated with the capital intensity of a media industry. The more capital-intense an industry, the higher the fixed costs, the lower the variable cost, and hence the higher the economies of scale are. This, in turn, favors large firms and thus industry concentration.

But what factors explain different national industry concentrations within the *same* industry? The following factors were found to be statistically correlated with concentration:

- The size of population was a fairly decent-sized negative (i.e., reducing) factor for concentration in the newspaper and multi-channel TV industries.
- Geographic size of a country was a moderately sized factor for newspapers (higher concentration) and ISPs (lower concentration).
- Per capita income in a country was a reducing factor for the concentration in mobile and wireless industries and a raising one for multi-channel platforms.
- p. 1324 ↳ Educational levels were a factor for newspapers and for multi-channel platforms (both associated with lower concentration).
- The "quality of regulation" and a variety of other government performance metrics showed no statistically significant correlation for any of the industries. This is a disappointing result from a good-government perspective. There is some correlation for the outliers on the high end, but for most countries at the center of the distribution, no correlation could be observed. This should be subject for further research.

L. What countries have particularly high cross-media ownership?

On average, about one-quarter (26.9%) of those content media entities that account for over 1% in a country's media markets (a "voice") share common owners (i.e., are cross-owned). The countries with the highest voice-count cross-ownership percentages are China (73.9%), Sweden (44.4%), Brazil (40.9%), the United States (40.4%), and Canada (35.9%). Those with the lowest are Mexico (9.1%), Argentina (7.7%), and Egypt (8.6%). Thus, voice cross-ownership is greater in highly developed media markets and less in poorer countries. This suggests that the presence of cross-media firms in multiple media industries rises with economic and media development. In consequence, as countries develop economically and their media grow in technological and business complexity, one should expect further trends to cross-ownership. Cross-ownership is also high in countries with a strong government presence, typically less developed countries. Cross-ownership thus trends with economic development in a U-shape—high at both the lower and the higher ends of economic development.

M. What countries have a high foreign ownership of media?

Foreign ownership of media has been increasing in most countries, rising from a world average of 24.5% in 2005 to 28.2% in 2013 for all media industries. The growth has been driven primarily by internationalization in telecom, especially in mobile, and in the non-broadcast audiovisual media, enabled by lowering of laws favoring domestic ownership.

The countries with the highest percentage of foreign-ownership of media are Ireland (72.1%), Brazil (65.8%), Argentina (62.8%), Chile (62.4%), the United Kingdom (52.1%), and Egypt (50.3%).

The countries with the lowest foreign ownership are mostly countries with major regulatory restrictions: Canada (2.5%), Japan (1.8%), South Korea (0.9%), and China (0.5%). The United States has a foreign ownership percentage of 8.6%, up from 4%, primarily due to the acquisitions of Sprint by Softbank (Japan) and T-Mobile by Deutsche Telekom.

For content media, foreign ownership is highest in the Netherlands (55.2%) and Chile (41.6%), due to the heavy presence of German and French firms in the former, and of Spanish and Mexican firms in the latter. It is also high in Ireland (39.4%) due to the presence of British firms. Media firms in these countries are also active abroad (Reed-Elsevier of the Netherlands and Independent News and Media of Ireland). Foreign ownership of content media is lowest in the United States (3.1%), South Korea (4.9%), China (3%), and Japan (5.8%).

The world average of content foreign ownership, including film imports, is 21%, increased from 18.3% in 2004/05. In platform media, however, foreign ownership is much higher: averaging 31.5% worldwide, up from 26.6% in 2004/05. Regionally, it is highest in Latin America (64%) due to the dominant presence of companies such as America Móvil (Mexico) and Telefónica (Spain). These are high numbers indeed. It is lowest in North America (5.7%), partly due to historical restrictions on foreign ownership of infrastructure, and in the Asia-Pacific region (8.3%).

N. What countries are high exporters of media?

p. 1325 For the top 50 media companies, the average share of exports (defined as non-domestic ↳ revenues) as part of their overall turnover was 38.6% in 2013. The company with the greatest share of revenue outside of its home country was Vodafone (89% of revenue outside of the United Kingdom). Other major exporters are Pearson (United Kingdom, 86.7%), Google (United States, 79.4%), America Móvil (Mexico, 77.1%), and Liberty (United States, 72%). Two South African companies, the mobile telecom firm MTN (70.4%) and Naspers (70.4%) also derive much of their revenue from abroad.

Is there a common denominator for these export-intensive companies? Several are based in rich and large countries where media firms expand globally from positions of success. Others originate in less developed countries, with companies with a secure national base seeking expansion by moving beyond their borders. If one industry stands out in export activity it is mobile telecom, with 4 of the top 10 companies with the highest export intensity.

The countries whose companies had the largest share of media exports in the world were the United States with nearly one-quarter of world media exports (23.9%), distantly followed by the United Kingdom (14.8%), Spain (9.2%), France (9.5%), Mexico (8%), and Germany (7.5%).

However, the US world export share is much smaller than its share in the overall world media market, which is 35.3%. That means that the domestic role of US media is much higher than the world average, but its export activity, while large in absolute terms, is below average in comparison to GDP, and relatively low in comparison to domestic media activity.

Other export "under-performers" are Japan, South Korea, China (1.7% vs. 6.7%), Australia (counting Rupert Murdoch as a US national), Brazil, Turkey, India, Taiwan, and Canada.

In contrast, export "over-achievers" are the United Kingdom (14.8% vs. 5.7%), Mexico (8.0% vs. 1.1%, mostly due to Carlos Slim's America Móvil), Spain, France, Sweden, and South Africa.

O. Do American media companies dominate the world media? Does Hollywood dominate content?

The US share in the 30-country world in various media industries is very high (Table 38.9). For all media, the US share is 33%, while its population share is 7.4% and its GDP share is 27.8%. For several media, the US share is large but roughly corresponding to GDP share (Newspapers, 30%; broadcast TV, 23.4%; wireline, 35.6%; wireless, 21.6%; radio, 33.6%; and ISPs, 28%). In several media, however, the US share is much larger: online news, 42.3%; video channels, 40.4%; multi-channel platforms, 64%; film, 76.4% (with exports included; it is 30.9% without exports); and search engines, 74% (again, with exports included—and 35.8% without).

Table 38-9. US Presence in Global Media

Industry	US Presence in World
Newspapers	Largest firm: News Corp.
Book Publishing	3 of the top 10 firms: News Corp. (Harper Collins, #4), McGraw-Hill (#5), Redstone (Simon & Schuster, #9)
Magazines	3 of the largest firms: Time Inc., Advance Communications, and Hearst
Radio	Top 2nd, 3rd, and 4th largest radio firms by revenue: Liberty (Sirius XM), Clear Channel, and CBS
Multichannel Platforms	Top 5 firms: 21st Century Fox, Comcast, Time Warner Cable, DirecTV, Dish, and Liberty
Broadcast TV	5 of the 10 largest broadcasters by revenue: CBS, 21st Century Fox, ABC, NBC
Cable Channels	5 top firms: Time Warner, Disney, Redstone Group (Viacom), 21st Century Fox, Discovery, and Comcast
Film	5 of the 6 largest film companies: Universal, Disney, Paramount, Warner Bros, 21st Century Fox[a]
Wireline	2 top firms by revenue: AT&T and Verizon
Mobile Telecom	2 of the top 5 firms: AT&T and Verizon.
ISP	4 of the top 7 firms, by revenues: AT&T, Verizon, Comcast, and Time Warner Cable
Search Engines	Top 3: Google, Yahoo, and Microsoft
Online News	Top 4[b] by revenue: Yahoo, AOL, Comcast, and News Corp.

a The 6th (Sony) is Japanese-owned, but US-based.

b Data is incomplete.

But revenue is only one way to measure top firms. A large and high-income market such as the United States will result in its firms being large, even if their American market shares are intermediate rather than dominant. This is the reason for the usefulness of the power index, which adds the dimension of market power as well as a cross-media and cross-national calculation. Using it, the position of the United States declines in most of the 13 industries, except for film and search engines.

The reduced position of US firms with the use of the power index is most noticeable for print media. In newspapers, Murdoch, whose newspapers are rooted in Australia and the UK, ranks first for both power index and revenue (power index = 249 and $8.4 billion), but the other top firms are non-American: Amaury of France (36.8), Independent News & Media of Ireland (62.1), the Government of China (46.4), the Yomiuri (68.2) and Asahi Shimbun (42.2) of Japan, the UK's Daily Mail Trust (40.2), Canada's Postmedia (32.6), Italy's RCS Media Group (40.4), Bonnier in Sweden (52.9), and Fairfax in Australia (32.8), all rank ahead of any other American companies (Gannet is the next largest US firm, with a power index of 27.7).

For book publishing, US firms rank relatively low. The Chinese Government (1,590), the German-Anglo
p. 1326 venture Bertelsmann-Pearson (168), France's Lagardère (108), and ↳ Italy's Fininvest (52.1) all score by power index above McGraw Hill (22.3) and Murdoch's HarperCollins (24). For magazines, the American

majors (Hearst, Time Inc., and Advance) are about even with non-US majors (Lagardère, Bauer, Nine Entertainment) by power index.

In radio, Germany's public ARD[19] (240), the Chinese Government (223), and BBC (172) all rank in power index ahead of Sirius XM (79.7) and Clear Channel (76.7). In broadcast TV, the Chinese government leads with 607 (CCTV alone has a power index of 212), followed by the BBC (225), Globo (Brazil, 155), RAI (Italy, 127), Fininvest (Italy, 116), and the Governments of South Korea (86.9) and Russia (112). The largest US firms here are Comcast with 72.5 and Disney with 60.7. In multi-channel platforms, though, the largest firms by power index and revenue are American: 21st Century Fox/Sky, Liberty, DirecTV, Time Warner Cable, the Dish Network, and Comcast. The situation is similar for video channels (Time Warner, Disney, 21st Century Fox, Discovery, and Viacom)—though France's Vivendi has the largest company power index (247) and Time Warner is number 3 by power index (222).

In wireline telecom, Japan's NTT has the largest power index (567) due to its strong market share in Japan, ranking it above the regional provider AT&T in the United States (254): AT&T is the wireline leader in the share of world revenue, however (9.5%). Although Verizon has a large power index (123) and high revenues
p. 1327 (6.6%), its ↳ PI is less than that of the Chinese state (448), Deutsche Telekom (278), Telefónica (245), Oi Telemar (165), and Telecom Italia (135). In mobile telephony, the Chinese state leads in terms of power index (1,709), and Verizon (244) and AT&T (234) are the second and third largest by PI, respectively.

The combined global news share of the top five United States companies (technically, seven companies) is 4.6% for the 30 countries, and 3% for all nations. The top ten American firms have 7.2% for the 30-country world news market (4.6% globally). Rupert Murdoch's two companies combined are the third largest privately owned news provider in the world by attention (after BCCL and Globo) and the largest US-headquartered news firm (1.35%). Of other US companies, Comcast, Disney, the Redstone companies of CBS and Viacom, and Time Warner are in the top 20 in news attention.

What this means is that the US share of global news attention by its top 10 (i.e., 12) firms is roughly equal to its population share of about 7%. (These top firms hold 55.8% of US-based news share, leaving almost half the US news attention to other firms). There is relatively little US ownership of news providers and distributors in other countries. They are primarily multi-channel platforms (Liberty and Murdoch's Sky in Europe, DirecTV and Dish in Latin America), some magazines (Hearst, Advance, Time Inc.), and video channels (Time Warner, Disney, and Murdoch).

How does the news attention share of European companies compare? The aggregate shares of EU-based firms add up to 6.2% for the 30-country world and 4% globally. This is a lower bound figure, since our study covers only 11 of the 27 EU member countries, though they are mostly the larger ones in terms of population or GDP. The EU share in news attention is thus comparable in size to that of the United States. However, the European countries' numbers count exports to other EU countries. If we subtract those, US exports are larger in comparison.

The next question is that of Hollywood's dominance. In pure revenue terms, the box office revenues of the six Hollywood "majors" add up to just 2.1% of the combined content media industries' revenues. With generous assumptions on non-box-office revenue streams, Hollywood share of global content revenues would rise to 7.8% for the six firms. Thus, the claim that Hollywood dominates the world's content creation and distribution are exaggerated. It is accurate when applied narrowly to the film industry but not when this observation is widened to media content more generally.

National film market concentration is actually highest in those countries where there is a state-supported domestic industry, which favors the emergence of a very large domestic firm receiving protectionist policy support, as is the case in China, Russia, South Korea, and France.[20]

P. Where is there a strong role of public (state) ownership in media concentration?

Public (i.e., state and state-corporate) ownership has been decreasing, combined for all media, from 18.6% in 2004 to 15.3% in 2013. Public ownership for content fell from 17.9% to 15.5%. For platforms, it fell from 17.7% to 13.7%. It is highest in countries where public incumbents, usually in platform industries, control the national infrastructure. China is the largest market, with public ownership of platform media at 100% (unchanged since 2004/05), and content at 72.9% (down from 90.4% in 2004/05). Public ownership for content media is also high in Egypt (35.5%), Russia (36.4%), and South Korea (31.6%). It has been declining in Egypt and South Korea, and slightly rising in Russia. It should be noted that many countries that are usually private-enterprise oriented have significant residual public holdings in their telecom/mobile incumbent (Germany, 38% and Japan, 33.7%). It is 37% in Sweden, and 27% in France. Some of the media are companies held, in some form ↳ of arm's length relationship, e.g., the public service broadcasters,
p. 1328 which can hold a considerable share of radio and TV.

In radio, even after liberalization in the 1980s, the national market shares of public service radio broadcasters remained quite high (54.5% for the BBC in the United Kingdom, 36.5% for the ARD regional stations in Germany and 13.5% for ZDF, 48.2% for RAI in Italy, 30.6% for India's national public broadcaster, and 31.6% for SABC in South Africa. This is remarkable insofar as these shares are not based on a formal monopoly. Public media prevails in the face of private competition. Hence, market concentration is still fairly high in these countries, but lower than in the past.[21]

The countries with the lowest percentage of public-owned market share are Argentina, Brazil, Mexico, and the United States, all of which had 1% or less.

The high share of government-controlled media organizations gets still higher when we venture beyond the 30 countries of this study and look at other countries. The 11 largest countries by population that have not been included in the 30-country world (with its 64% share of the world's population), account for another 18% of the world's population. Of these, five countries have a strong state dominance over both audiovisual (TV, radio) and print media—Vietnam, Ethiopia, Iran, the Democratic Republic of Congo, and Burma/Myanmar. These countries, each with populations above 50 million, account for 5.3% of the world's population and populations. Three countries have a substantial governmental dominance over audiovisual but not over print: Thailand, Bangladesh, and Nigeria. They account for 5.5% of the world's population. Three countries have no state dominance over audiovisual and print: Indonesia, Pakistan, and the Philippines. They account for 7.3% of the world's population.

This matches others' findings. The World Bank study mentioned earlier (Shleifer et al. 2001; Djankov 2003) reviewed 97 countries and identified a state ownership, on average, of 29% of major newspapers, 60% of TV stations, and 72% of the top radio stations. Twenty-one percent of the countries had a government monopoly on newspapers and 44% on TV stations. In Africa, governments control 61% of the top five newspapers (by circulation) and 84% of TV audiences, with 71% of countries having a state monopoly. In the Middle East, and North Africa, in 2001 all countries but one (Israel) had a state monopoly over TV broadcasting and held 90% of newspapers by circulation. In Singapore, the dominant Lee family controls the Singapore Press Holdings, which publishes all five top newspapers. The family owns 47.23% through four companies, and possibly more indirectly.

Q. Are there different market characteristics for media in the countries of the North versus those of the South?

We found that concentration in news media is associated with less economic development, not with more (and with a strong state role, as discussed in the preceding section). In many emerging markets, individual news media owners have an amazingly high share in news attention: the Marinho family (Globo, Brazil, 35.5%), the Azcárraga family (Televisa, Mexico, 44.4%), the Dogan family (DMG, Turkey, 37.5%), Alexander Rodnyansky (CTC Media, Russia, 15.6%), and the de Noble family (Grupo Clarín, Argentina, 26.9%). It is also very high in Italy, where Silvio Berlusconi's firms hold 22.4% of news attention, and in Sweden, where the Bonnier family holds 25%. The Murdoch Group controls mid-sized shares across the United States, United Kingdom, Ireland, and Australia.

p. 1329 Similarly, in the Philippines, large media owners are the Lopez family (ABS-CBN), ↳ which also owns the telephone company Bayan Telecommunications, as well as the Gozon, the Duavit, and the Jiminez families (GMA); and Manuel Pangilian (TV5 and the PLDT, the largest wireline and mobile telecom company).

In Indonesia, the leading media-owning families are the Hary Tanoesoedibjo (MNK Group), Tohir (Mahaka Media), Oetama Adierasetya (Kompas Gramedia), Narada (Media Bali Post). MNC's owner Hary was a candidate for Vice President in the country's 2014 election.

Around the world, the organizations with the greatest news attention are not those with the highest revenues. The media organizations in BRICS countries, especially audiovisual media in China and India, have a vastly greater hold on people's attention than on revenues. These are the media organizations of the emerging world—the "*BRICS media*."

In contrast, the leading media organizations of the developed world—one might call them "*OECD media*"—consist of a combination of traditional media conglomerates and successful startups. Their hold on national attention, large as it is, is dwarfed by the BRICS media.

But when it comes to revenues, such ranking is quite the other way around. Now, the Murdoch Group, Google, Comcast, Disney, Bertelsmann, the Redstone Group, and Time Warner outpace Chinese and Indian firms. Vivendi and Fininvest are nearly as large. Aside from the Chinese and Indian entities, only one BRICS media organization is by revenues among the top 30 media groups: Globo at number 12.

p. 1330 R. Are there trends of convergence among countries in media concentration?

A convergence of concentration can be observed across geographic regions. Regions with lower concentration in content media have been rising in concentration, and regions with higher concentration showed a decline. North America and Europe were low but rising and Mideast, Asia-Pacific, and Latin America high but falling. A measure of the divergence—the standard deviation—of concentrations among the regions for content media dropped from 1,210 in 2000 to 1,033 in 2004 and to 764 in 2013, and for platform media from 1,660 in 2000 to 1,413 in 2004 to 966 in 2013. For news media, the standard deviation across regions fell from 835 in 2000 to 713 in 2004 to 698 in 2013.

Industries

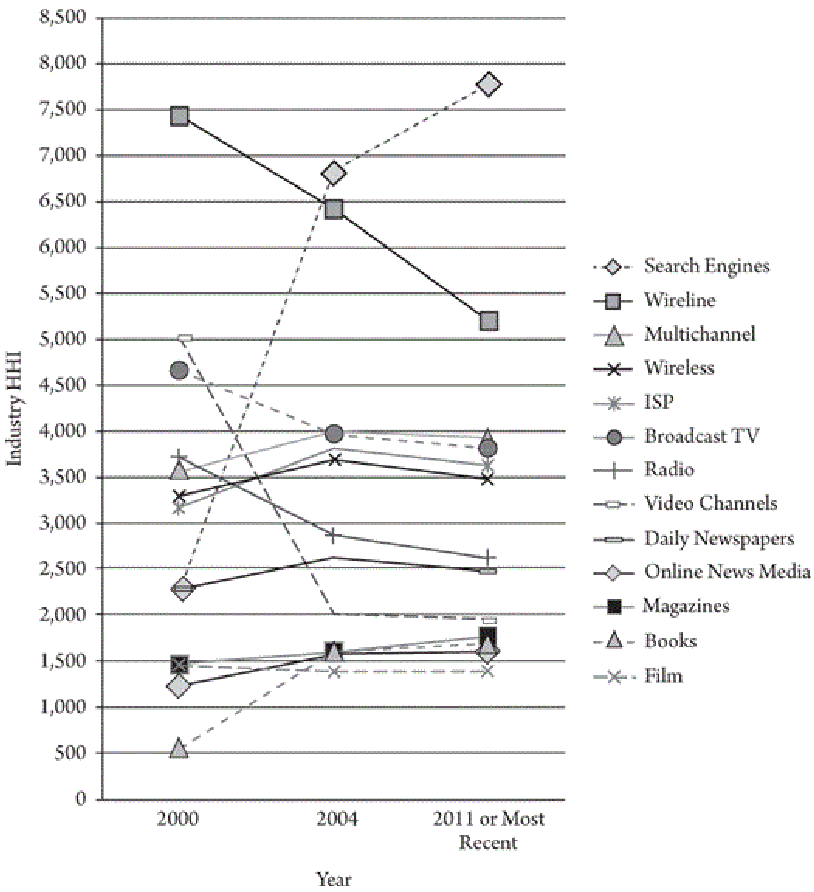
S. What are media industries with particularly high—and low—concentrations? What are the explanations?

We find that differences in the concentration levels of different media industries are correlated with the capital intensity of a media industry. The more capital-intensive an industry is, the relatively higher are fixed costs and the relatively lower are variable cost, and hence economies of scale. This, in turn, favors large firms and thus industry concentration.

The consequence is that as media becomes more capital-intensive in the future, its industry concentration will rise.

We can analyze the concentrations of the global average HHI of the 13 industries (Graph 38.5). Due to the worldwide market power of Google, the search engine industry is the most concentrated (7,760). It also experiences the highest increase in concentration (1.7% per annum during the observed period). In comparison, the worldwide average HHI of the telecom wireline industry, characterized by former or current public telecom monopolies, is the second most concentrated, but has been decreasing by -2.4% per annum. At the lower end of concentration are the print media industries. As discussed earlier, the film industry has the lowest average national HHI (1,403) of all media industries, due to the absence of a single dominating firm. It is an oligopoly of six firms, each with about 10–15%. That industry, however, is unusual insofar as the same six firms dominate in almost all countries where they are free to operate. Worldwide, of the 13 industries, the top six firms hold 76.4%.

Graph 38.5



Convergence of 13 Media Industries

T. Is there a convergence in market structure among the various media industries?

We find a convergence in the concentration of media industries relative to each other. High-concentration industries have mostly been trending downward, while low-concentration industries have risen (the exception are search engines). The standard deviation—the measure of the industries' divergence from the average—in the concentration of the four media industry sectors dropped from 1,512 in 2000 to 1,159 in 2004 to 1,002 in 2013.

The concentration of content media has been rising and that of platform media declining, and they have thus been moving closer to each other.

Companies

U. Who are the world's most dominant media companies?

The first way to rank companies is by revenues. Of the world's top 12 media companies by revenues, all are platform telecommunications providers. The top five organizations are the Government of China (with the combination of China Mobile, China Unicom, China Telecom, CCTV, and other media activities), AT&T (United States), Telefónica (Spain), NTT (Japan), and Verizon (United States). In that top 12 group, only Comcast (a US platform cable company), Murdoch, and Softbank (with mobile, ISP, search, and other online activities in Japan and the United States), as well as the Government of China have a major content presence, too.

p. 1331 The Chinese organizations experienced major growth. Even separately, the three firms of China Mobile, China Telecom, and China Unicom, would be among the world's largest overall media organizations by revenues while CCTV would be counted among top content providers.

In the content media, the Murdoch Group (News Corp and 21st Century Fox combined) is the private media organization with the highest revenues, at $32.5 billion. In 2004/05, it also held first place with $26.5

billion. In that period, Time Warner was second with $22.8 billion. However, after several spin-offs, Time Warner's revenues had dropped to $12.6 billion.

Google, with $7.4 billion in 2004/05, became the company with the second highest content revenues in 2010, with $26.8 billion. Its total revenues grew to $66 billion by 2014. With its enormous growth rate, it either already is or will be shortly the world's largest content company. Google already is the content company with the highest power index with a score of 278 for content.

The largest media companies by revenues are headquartered in OECD countries, and among these countries the economically largest account for 28 of the 30 largest media content firms by revenue: the United States (14), Japan (5), Spain (1), the United Kingdom (1), Italy (2), France (2), and Germany (2).

The second way to rank media organizations is by the power index. The privately owned content company with the highest power index was Google with a score of 278. Its market shares around the world are huge, and it effectively dominates the search engine industry.

The content producer with the highest global power index in the world is the Government of China, with a power index of 359. The Murdoch Group is third with 129. For more details, see Chapter 35 on "Companies."

V. Which companies dominate the attention for news?

A third way to rank media companies is by news attention, by the aggregate time spent on news by their audiences. The combined share of firms that are top in news attention is enormous everywhere. The C10 in news attention in four countries is above 90%. It is between 80–90% in nine countries. It is nowhere below 50%, not even in the United States (55.8%). Thus, in most of the world, the top 10 firms command over 75% of their countries' news attention. The share of the top firm in terms of news attention is, on average, 32.2%.

High shares exist, in particular, where governments control media operations (i.e., China, Egypt, and Russia). As mentioned, the government of China, through its several media organizations, accesses a vast share of global news attention. In the aggregate, it has 29.7% of the 30-country world news attention in 2013, and 19% of the entire globe. Even if we unbundled China's news organizations, CCTV alone would still command 11.1% of the world's news attention (and 7.1% for the entire globe) and be the second largest news media company in the world. The explanations for these high shares are, as mentioned, the country's huge population (1.3 billion), relatively good accessibility to media (print, audiovisual, and Internet), and state control over most news media except several online portals and print magazines.

Other large shares in global news attention time are held by the governments of Russia (1.81%) and Egypt (1.75%): both countries' governments prioritize broadcast TV and radio control. Egypt also maintains significant state-owned print newspapers. Russia's government, in contrast, is looking to increase its ownership of online news media. India's public service broadcaster Prasar Bharati (18.5% in the 30-countries and 11.8% for the world) became autonomous from direct state control after 1997 and has a terrestrial broadcasting monopoly in a country with a population of 1.1 billion people.

India's BCCL is the largest privately owned media firm in the world, with 1.25% for the entire world of global news attention share in 2012. The second largest private media firm, by news attention time, is Globo in Brazil, with 1.1% for the entire world.

 Rupert Murdoch's two companies combined are the second largest privately owned ↳ news providers, holding a global attention share of 1.35% of the 30-country world and 0.86% of the entire world. It is the largest US-headquartered news firm.

Most other large firms dominate large, single-country markets. Televisa of Mexico is the fourth largest private news firm in world news attention (1.21% for the 30 countries and 0.77% for the world). Other significant players such as BBC, Disney, the Redstone Group, Fininvest, PRISA, France Télévisions, the Bouygues Group, and ProSiebensat.1 all primarily operate within their home country's news markets. Bertelsmann is active in Europe more generally, and BBC and Time Warner also have an international presence.

As noted above, the combined global news share of the top five United States companies/groups is 4.6% for the 30 countries, and 3% for the whole world. The top ten firms have 7.2% for the 30-country world and

4.6% for the entire world.

Owners

W. Who are the media owners, and what do they own?

There are major differences between the ownership of content media and platform media.

- Many of the platform companies, even after the corporatizations and privatizations of the 1980s, have major ownership stakes by their governments. This includes, as mentioned, NTT in Japan (33%), Deutsche Telekom in Germany (38%), Orange in France (27%), the Chinese telecom majors, Svyazinvest in Russia (53%), and Telkom in South Africa (50.7%). These governmental ownership stakes are particularly high given the fragmentation of the private stock holdings in platform companies among numerous small investors who have traditionally considered telecom shares as safe "widows-and-orphans" stock.

- Few of the top 20 platform companies have major individual owners. The main exception is America Móvil with Carlos Slim holding 52%. Several other large platform firms have high individual ownership stakes but originated as a media or Internet company with a presence in platforms. Most of these companies have a dual stock structure. This is designed to allow an individual owner to maintain control while accessing outside capital investors. The other major platform companies are majority-owned by large institutional investors or governments and have no dual stock structure.

- US institutional investors have good-sized ownership stakes in many of the top 20 platform companies around the world, though rarely over 5%.

- Content firms tend to be privately owned. Most of the top content companies have major individual owners—Globo Group (Marinho family, Brazil); Lagardère (Lagardère family, France); Bertelsmann (Mohn family, Germany); Fininvest (former Prime Minister Silvio Berlusconi, Italy); Softbank (Masayoshi Son, Japan); Fuji TV (Shikanai family, Japan); TF1 (Bouygues family, France); Fox/News Corp (Murdoch family); Google (Larry Page and Sergey Brin); Comcast (Roberts family); Liberty (John Malone); CBS/Viacom (Sumner Redstone); Baidu (Robin Lee); Yomirui group (Shoriki family); and Disney (Steve Jobs family with 7.8%). The major exceptions are Time Warner/Time Warner Cable; Yahoo; and ProSiebenSat.1.[22]

- A World Bank study (Shleifer et al. 2001) of major media enterprises in 97 countries finds that only 4% of them were widely held by shareholders and 2% were owned by employees. In contrast, families control 57% of newspapers and 34% of TV stations. What are the reasons for such high levels of
p. 1333 individual or ↳ family ownership? Economists, going back to Demsetz (1989) concluded that the non-financial "amenity potential" of controlling media outlets, such as fame, influence, and favorable policy are high and therefore create incentives to acquire control.

- Family control is often assured by foregoing shareholder democracy. Great discrepancies exist for the equity percentage and voting percentage of many major content companies: Google; News Corp/21st Century Fox; Comcast; Lagardère; Bertelsmann; Liberty; Televisa; Bouygues; CBS; Viacom; etc. In each case, founders or their heirs protect their control through complex stock structures.

There are three major kinds of owners—individual, institutional, and state/public. There are 56 media billionaires as individuals or families.

- Of the billionaires, two-thirds substantially created their media properties themselves (37) rather than inheriting established firms (19).

- The "new media billionaires" were mostly active in Internet (12), mobile telecom (11), and information services (2).

- A significant share of the 56 media billionaires are US citizens (22); 4 each are from Japan and France; 3 from India; 2 each from Germany, Canada, Turkey, and China; 5 from Latin America; and 2 from Africa. Overall, there are 17 media billionaires in developing countries and the BRICS.

- The top 10 individual owners hold, in aggregate, $225 billion worth of media companies. The top 20 individual owners hold $313 billion. And the top 50 such owners had $422 billion.
- For 2013, the media sector's global aggregate (i.e., 30-countries) revenues were about $2.25 trillion dollars. If we estimate a multiple of enterprise value to revenue of 2.07, this would give a rough estimate for valuation of $4.7 trillion. The share of the top 10 individual owners in the world's media companies is then about 4.8% of the top 20 owners about 6.7%, and of the top 50 owners, 9.0%. A lower multiple, such as 1, would double these shares.

X. Who are the Institutional Owners?

Generally, the stake of institutional investors' is larger than those of individuals. In 2013, the investment company State Street Corp. had $65 billion invested in major media companies, mostly on behalf of the clients of its investment funds. Rupert Murdoch, in comparison, had "only" $11.6 billion. Janus Capital, with over $11 billion, had more money tied up in media than Berlusconi, Malone, Redstone, and Lagardère combined.

The popular belief that technological convergence in the information sector, plus worldwide mergers, have resulted in a small group of media moguls is not an accurate one. Such individual owners do exist, of course, and the 56 media billionaires attest to that. Almost every country seems to have several such large-scale private media owners. But for the developed world, larger and growing faster is the ownership by fairly anonymous financial institutions that own, on behalf of their fund investors, narrow slices of a very big pie.

We identify at least 30 institutional owners with more than $1 billion in media assets.

- The total media assets of the top 10 institutional owners add up to $332.5 billion; the top 20 have $423.4 billion. And the top 30 have $449 billion.
- Of overall media value, estimated as $4.7 trillion (before including state-owned media), the top 10 institutional owners hold 6.1%, and the top 30 hold 9.6%.
- Of the headquarters of the top 30 asset management companies (in terms of media holdings), 73% are
p. 1334 based in the United States (22 companies). ↳

p. 1335

Y. What is the Overall Ownership of the Media Sector?

The Top 30 *individual* owners: 7.9–15.8%.[23]

The Top 30 *institutional* owners: 9.6–19.2%.

The 30 *government* holdings: 13.4%.

These 90 owners, then, account for about 30–50% of all media assets (Table 38.10). Institutional investors will likely grow their ownership share, while state ownerships will likely continue to decline in the developed world. Individual non-entrepreneurial ownership will also decline, though it is being kept around through various forms of economically inefficient multiple share classes.

Table 38-4A. Absolute Change in National Media Concentrations—Weighted Country (2004/5–2011/12)

	All Media	Platform Media	Content Media w/Internet	Content W/O Internet	News Media (by revenues)	News Media (by attention)	News Media by attention (without China)
HHI	16.08	–19.70	69.98	49.41	36.76	–6.49	0.71
C1 (%)	0.05	–0.40	0.76	0.56	0.39	–0.05	0.01
C4 (%)	0.70	0.49	0.88	0.79	0.69	0.18	0.20
Power Index	18.43	–20.62	74.90	55.27	42.24	–9.96	–4.19
Noam Index			49.18	39.39	27.31	–13.23	–1.37
Voices			0.16	0.11	0.05	0.05	0.05
Pooled HHI	38.43	–2.55	30.95	42.77	29.98	–4.92	–5.49
Pooled C1 (%)	0.00	–0.51	0.47	0.60	0.49	–0.09	–0.02
Pooled C4 (%)	0.52	0.16	0.52	0.71	0.63	0.07	0.10
Cross-ownership (%)			0.03	0.05	0.26	0.26	0.21

Table 38-10. Top Media Owners Worldwide (as of Sept. 2013)

Owner or Asset Manager	Value of Media Holdings ($ billions)
Government of China	317.2
Government of Japan	67.2
State Street (US)	64.8
Vanguard (US)	63.8
Fidelity (US)	46.5
Capital Group (US)	35.2
Government of Germany	29.9
Carlos Slim (America Móvil, Mexico)	29.2
Larry Page (Google, US)	26.7
Government of France	26.4
T. Rowe Price Assoc. (US)	26.1
Sergey Brin (Google, US)	26.0
Government of Russia	25.4
BlackRock (US)	24.3
Cox family (Chambers, Kennedy, Parry-Sheden, Anthony) (Cox Communications (US))	24.0
Michael Bloomberg (Bloomberg LP, US)	24.0
David Thompson family (Thompson Reuters, Canada)	20.3
Marinho family (Globo, Brazil)	20.0
Dodge & Cox (US)	20.0
Government of India	19.8
Mark Zuckerberg (Facebook, US)	19.0
Massachusetts Finance (US)	18.7
Brian Roberts family (Comcast, US)	18.5
JP Morgan Chase (US)	17.9
Newhouse family (Advance Publications, US)	17.1
Government of Norway[a]	16.2
Wellington Management (US)	14.0
Government of the UK	13.9
Janus Group (US)	13.8
Goldman Sachs (US)	12.3
Government of Taiwan	12.1
Sawiris Family (Orascom, Egypt)	12.0
Murdoch family (News Corp./21st Century Fox, US)	11.6
Government of South Africa	11.6
ClearBridge (US)	10.9

Charles Ergen (Dish Network, US)	10.6
Government of Switzerland	9.1
Jobs Family (Disney, US)	8.7
Masayoshi Son (Softbank, Japan)	8.6
Government of Poland	8.4
Eric Schmidt (Google, US)	8.2
Legal & General (UK)	7.7
Edward Rogers Family (Rogers Cable, Canada)	7.6
Robin Yanhong Li (Baidu, China)	7.53
Baille Gifford (UK)	7.5
Government of Egypt	7.5
Government of Italy	7.1
Hearst Family (Hearst Publishing and TV, US)	7.0
Oppenheimer Funds (US)	6.7
Xavier Nile (France)	6.6
Government of Spain	6.4
Thornburg Invest. Mgmt. (US)	6.2
Ambani family (Reliance, India)[b]	6.2
Silvio Berlusconi (Fininvest, Italy)[b]	6.2
Government of Sweden	6.0
David Geffen (film and music, US)	5.6
Avande Krishnan (Moxis Mobile, Malaysia)	5.85
Government of Turkey	5.8
Government of the United States	5.7
John Malone (Liberty, US)	5.6
Denis O’Brien (Communicorp Radio, Ireland)	5.2

a Includes the Government Pension Fund of Norway, which invests worldwide, with media assets of $15.2 billion.

b Media activities only.

Entrepreneurial ownership is likely to grow in periods of innovation but shift to institutional ownership in periods of consolidation. Industry concentration and institutional ownership are therefore closely associated, as is government ownership and concentration.

Thus, the actual ownership of firms has shown two seemingly contradictory trends. On the one hand, it has become more fragmented—a large number of institutional owners with stakes that are moderate in terms of control. p. 1336 ↳ On the other hand, some of these same institutional owners have stakes in many media and information firms, and they add up to huge amounts.

Public attention has centered on highly visible media moguls such as media Murdoch, Redstone, or Berlusconi. But that kind of personalized portrayal is dated given the prevalence of institutional investors, dot-com startup founders, and national governments.

Problems

Z. What are the priority problems?

We mentioned in the introductory chapter what this book is *not*: it is not a policy recommendation and it is not an analysis of societal impacts. We have created a fact base as the basis for public policy, media strategy, and further academic interpretation. Adding policy recommendations in this book would only detract from the analysis. In addition, given the wide diversity of authors in this project's country studies, such a recommendation would end up dividing an otherwise collegial group. This does not mean, however, that we would not endeavor to do so in the future. But this volume, long as it already is, is dedicated to data analysis and interpretation, not to a call for specific actions. We do, however, identify 11 key problems.

1. The problem of content media concentration

A convergence of concentration can be observed across geographic regions, countries, and industries. Those with higher concentration in content media have been dropping in concentration, and this is positive in terms of competition and pluralism. But convergence has two sides—countries with low concentration have moved in the opposite direction, toward greater concentration.

There has been a high concentration in the average content media (HHI = 2,219 for country-weighted weighted; 2,906 for arithmetic average), and it has been strongly rising 3.1% per year by country-weighted HHI without the Internet, and 4.2% with it. (Internet content media are defined as search engines and online news.) The (arithmetic average) has 41%, and top four firms have 76.5%. In the overall (pooled) content sector, the top four firms account for 48% (40% weighted by countries).

The growth rate for content (weighted country averages) are, for the HHI, 4.2%; for the C1, 2.9%; for the C4, 1.5%; for the power index, indicating cross-industry expansion, 4.9%; for the Noam Index, indicating pluralism, 6.4%. These are high numbers. In the United States, content concentration is much lower (HHI = 1,080), but HHI was growing at a rate of 6.9% per year, 4.9% without the Internet. The average growth rate for all eight index definitions was 3.3% per year in the US.

The high and rising levels of concentration in content and news cannot be satisfactory for those who believe in pluralism in content and competition in platforms.

The rise in content media concentration was only partly offset by the decline in the platform industry concentration. And that sub-sector is still very highly concentrated.

The magnitude of these increases was higher than expected by the author (who was agnostic about the findings). This trend should be cause for concern. It may be a reflection of inherent market equilibria, which means that some of the richer and more developed countries will move to greater concentration than in the past, and that market forces are unlikely to be able to deal with this trend. Even regulatory policies will have a hard time being effective in the face of fundamental trends. This is therefore a serious challenge to pluralist media.

2. The problem of divergence in platform and content concentration

The concentration of platform media has been declining slowly and that of content media has increased more rapidly, and they have thus been moving closer to each other. However, the gap is still substantial.
p. 1337 This means that in the vertical value chain, a relatively more competitive ↳ content sector is facing a more highly concentrated platform sector. For platforms, the pooled C4 is 78.5% weighted by country, which means a tight oligopoly, whereas it is 39.8% for content media. Even if the platform market structure declines gradually its basic structure is based on the economics of distribution technology that favor a large scale. Content providers, while not small, are significantly more competitive, and are facing a less competitive provider market in the essential service of distribution. This imbalance leads to rent extraction by the less competitive segment, which therefore points to several strategic options for content firms: (a) continuous battles before governments to adjust the imbalance in bargaining power through regulatory interventions; or, (b) a greater priority for the acquisition of content elements that are so unique and noncompetitive that they create advantage in dealing with platform providers; or, (c) incentives to further concentration in the content industries in order to match that of the platform industries.

Option (a) would lead to a more regulated media system. Options (b) and (c) mean that the highly concentrated platform market leads to greater concentration in the content market. Conversely, it would suggest (though not prove) that creating greater incentives to a more rapid de-concentration in platforms would have a multiplier in content media de-concentration, too.

3. The China problem

Much has been written about media in China.[24] That discussion, however, is usually about the editorial independence of journalists and publications. It is more about content and process than about ownership, market share, and international comparisons.

The share by the government of China in the world's media ownership and especially in news attention, through its domestic dominance, is truly extraordinary. As mentioned, the government of China, through its several media organizations, accesses a large share of global news attention. In the aggregate, it has 29.7% of the 30-country world news attention in 2013, and about 19% of the entire globe's. While the media holdings of the Chinese state dwarf those of all other governments that keep a grip over their media such as Russia and Egypt, even countries that are market-oriented, such as Japan and Germany, have substantial state ownership in the media sector. But these countries extend pluralism through transmission over content-neutral telecom, and in providing, over public service TV, content that is often not produced by the commercial sector. In China ownership is not only much more extensive but its explicit aim has been to lower pluralism. This aim has loosened somewhat but is still substantial. As China becomes an economic superpower, such centralized control might either decline as part of a more general liberalization, or remain as a major problem for the world's overall media diversity.

4. The Google problem

The media organizations with the highest revenues are not necessarily the ones with the highest news attention or the highest market power globally. Google, with just $7.4 billion in 2004/05, became the company with the second highest content revenues, with $26.8 billion. Google's growth rate will make it the world's largest content company. Google is the private content company with the, by far, highest global power index, a score of 278. US and EU antitrust actions deal primarily with the manifestations of market power in vertical markets, rather than with the cause itself. Even aside from its brilliance, the company's sheer cause and entry barriers in a high fixed-cost, low marginal-cost industry create problems that are hard to overcome conceptually or practically.

p. 1338
5. The developing countries and BRICS problem

Even where media companies are private, they might not be independent. In many emerging markets, the top individual news media owners have an amazingly high share in news attention, often well above 30%. These companies have often achieved their strong mindshare by close relations with a government in power that awarded preferential licenses. (This is not limited to the developing world: in France, President Mitterrand in the 1980s awarded the country's exclusive pay-TV license to Canal Plus, a company headed by his former chief-of-staff, golfing partner, and executor of his estate. In the United States, the FCC, under President Eisenhower, awarded no TV license to any newspapers company that had editorially endorsed his Democratic rival.) Once they achieve dominance, the media companies are hard to dislodge by subsequent governments or competitors. Indeed, given their influence over public opinion, they may receive additional benefits. In some cases, their principals become political players themselves, as in the case of Italy, Indonesia, or Thailand. The implicit quid-pro-quo of economic favors and media support eradicates the concept of media as "speaking truth to power." It would be comforting to believe that the role of governments in the media world declines and with it such leverage. But that is not so. On a large range of issues—telecom infrastructure, content production support and protectionism, spectrum licensing, intellectual property rights, merger approvals, access and interconnection rules and pricing, standards, and so on—the role of governments may well be increasing, and with it the potential for favoritism.

A great deal of attention has been given to the media power of those such as Murdoch, Redstone, or Berlusconi. One does not condone such individual media power in rich countries if one also flags the problem of media in developing and emerging countries. In a good number of these countries, the market shares and mindshares of domestic media firms are, within their societies, even higher than in richer countries, often by a substantial margin. The critique of media power cannot be asymmetric. Developing and emerging countries cannot get a free pass on anti-pluralism. Indeed, they need active media even more than well-developed democracies. In Mexico, three companies dominate their respective market niches, Carlos Slim in telecom (85% in wireline and 70.8% in wireless), the Azcárraga family in TV via Televisa (61%), and the Vázquez family OEM in newspapers (59.4%). Supporting a media protectionism that serves as a shield for major domestic companies under the guise of cultural autonomy does no favor to these societies. Of course, a delicate balance must be found of foreign and domestically grown content and distribution, but such balance is not found in a domestic dominance of politically well-connected companies.

The incentive to create national media empires in developing, low-income markets is still rising. For now, cross-ownership is higher in well-developed media markets. This suggests that the presence of media firms in multiple media industries rises with economic and media development. In consequence, as countries develop economically and their media grow in technological and business complexity, one should expect further trends to cross-ownership, without necessarily the counter-forces of competitive markets and public-interest regulation.

6. The industrial media policy problem

With scale economies an important factor, one obvious strategic conclusion for media firms is to grow in scale, whether through internal expansion and value pricing, or through mergers and joint ventures. Governments, often at the behest of powerful constituencies, regularly take initiatives to consolidate a market structure. In theory they aim to make it more efficient, but in practice they reduce consumer choice. And it is questionable whether this approach will work. While there are some success stories, "national champions" fail once protectionist walls are lowered. First, there usually are other firms with even larger scale out there. And second, dominance behind protected walls leads in general to complacency and lower accountability.

7. The Internet problem

The Internet has been the great hope for media pluralism. It is supposed to open established powerful media and create pluralism around the world, impervious to efforts by governments to control it. This optimistic scenario is unlikely to happen. First, because governments can control its use, as China has demonstrated. More fundamentally, the underlying economics of the Internet media is one of great economies of scale and of high network effects. Our findings, more generally, show that differences in the concentration levels of different media industries are correlated with the capital intensity of that media industry. The more capital-intense an industry, the higher fixed costs, lower variable cost, and hence the higher economies of scale are. This, in turn, favors large firms and thus industry concentration.

The consequence is that if media become more capital-intensive in the future, their industry concentration will rise.

The Internet will play a positive role in niche markets of the "long tail," where entry becomes easier, scale is low, and competition from large players is not a major factor. But off the long tail—at the center of media activities, with general news, mass entertainment, infrastructure, and central nodes such as clouds—the opposite is the case. The Internet raises capital intensity of key segments of media. Companies such as Netflix, Apple iStore, Amazon.com, Google, and its YouTube, have global market shares that far exceed those of conventional media. Successful Internet companies with high market share in some of their operations are also able to extend them into other media activities, as Apple or Google have demonstrated. This goes beyond online. The example of Jeff Bezos's (principal of Amazon.com) buying *The Washington Post* might be part of a broader pattern. Internet and concentrations are becoming high enough and large enough in key activities that they have been pulling up the average concentration of content industries. Thus, the Internet, far from being the solution to media power, will prove to be part of the problem, a force of concentration.

8. The globalization problem

Smaller countries tend to have more voices per capita. These smaller countries are able to support voices at a scale that does not seem sustainable in larger countries. It must therefore be not absolute size but the relative size with its negative impact on competitiveness that makes it harder for smaller voices to survive in large countries. In that sense, the larger countries under-perform in terms of sustaining voices. And this suggests that in an increasingly global media system, the number of voices per capita will decline, and the aggregate number of voices will decrease. For example, instead of two countries having each 30 voices, a joint media market might have 45 voices.[25] On the positive side, users will have more options in that global media system than they had in a national market. But on average, the national production of media voices will decline as media markets become more global. The number of voices per capita will also decline. And the content, in order to be successful in the larger world market, will be less domestic in orientation.

9. The problem of private media barons

In the 30 countries analyzed, there are 56 media billionaires as individuals or families. (About one-third are from developing countries or the BRICS.) Two-thirds of these moguls substantially created their media properties themselves rather than inheriting them. This suggests openness. In the aggregate, never has there been so much wealth created through the ownership of media. The financial stakes are much higher than they used to be, and this will raise the importance of the business side relative to the editorial side.

p. 1340 On the business side, this wealth leads to various maneuvers to perpetuate control into the next generations, whose competence might not equal that of the founders. Various inefficient arrangements such as multiple classes of shares protect control and distort investment decisions. Inefficiency, in turn, creates the need for a shield against potential competitors, and this leads such firms to seek market power (concentration) or regulatory protection.

10. The Problem of Absentee Institutional ownership

Public attention has centered on highly visible moguls. But the reality of media ownership is that of institutional investors that hold small to medium-sized pieces of many media companies. Institutional investors will likely grow their ownership share. There are several potential issues associated with such an ownership system: too much control; not enough control; and the absence of localism. The first issue is that an institutional owner or a small group of such owners would affect media behavior. They do not normally exercise a direct role in management in the way that personal owners do, but instead do so in an indirect way. Through their setting priorities on short-term stock performance and through their buy-and-sell decisions they set behavioral parameters for the actual managers. The second potential problem is the opposite, giving managers too much of a free hand, without the alleged vision and civic responsibilities of proprietors or their heirs. But this faith in the noblesse oblige of owners and their heirs romanticizes such quasi-feudal arrangement. And the third and most real type of problem is that of absentee ownership—a lack of sensitivity and concern by institutional owners for distant localities. This is exacerbated by the length of the ownership span: Of the headquarters of the top 30 asset management companies (in terms of media holdings), 73% are based in the United States.

11. The problem of low impact regulation

Earlier in this book, in the statistical estimation of correlations with a country's level of media concentration, neither the variable "quality of regulation" nor several other "good government" metrics showed statistically significant association with concentration. We concluded that this was a disappointing result from a good-government perspective, and a challenge for further data analysis. It also points out a major problem of media control. It is generally undesirable to give governments an undue role in the structure or behavior of media, since such powers are regularly abused or corrupted. To that principled objection is added one of practicality. Media regulation was easier to accomplish before digital convergence and global information flows. But now, traditional tools such as licenses, ownership ceilings, cross-ownership rules, and so on, are becoming ineffectual. How would they deal with the market power of Google? With the quality issues of Skype? With protecting national culture? With a balance in electoral campaign presence?

In the end, the most effective tool for government to assure pluralism, outside of curbing clear abuses, is to help generate alternative media, and to protect their access and interconnection. It is important for academics, public-policy analysts, NGOs, companies, and governments to think creatively about new approaches to these issues, balancing the public interest, technological innovation, and financial investment in the emerging environment.

Outlook

It is the nature of a fast-paced, short attention span, hyper-information society to seek a single and simple "bumper sticker" answer to complex and divergent set of facts and trends. These people will be disappointed. This book has tried to assemble and sift through large amounts of data, with many results, without seeking a single answer or conclusion. But there are some broader findings. They come in five parts:

p. 1341

1. ↳ The concentration problem is growing considerably in content media and declining in platforms (though it is quite high there).
2. Although rising considerably, one may observe—and maybe hope based on past decades—that in rich countries, a combination of market forces, technological innovation, fundamental economics, shareholder pressure, consumer preferences, regulatory interventions, and democratic politics will keep media monopolization more or less under control, in a system of loose oligopolies. This requires vigilance.
   Beyond this challenge, there are two looming problem areas.
3. The developing and emerging nations, where a symbiotic relationship of large media organizations and governments leads to the market dominance by a very few media companies or by state-controlled media.
4. The rise of high-tech, capital-intensive media operations using or providing Internet and related instrumentalities. The proliferation of "long tail" content, as well as the dynamic technology, obscures that the core of Internet-based media content and of its distribution are becoming more concentrated and globalized. Far from being the solution of media diversity, the Internet with its fundamental economics is actually a major part of the problem in the near future.
5. For either kind of concentration problem, there are no easy policy tools and remedies. Hence, they will grow in significance.

To consider remedies is therefore the task for our next round of research.

We conclude with the counsel to keep a perspective. Media concentration is not a new phenomenon. On the contrary, it has a long and contentious history, often leading to governmental counter-efforts. And it exists as a problem around the world.

Of course, just because a problem is old or widespread does not make it less important. The opposite is true. But a broader perspective may moderate the rhetoric of a falling sky and a lost golden age that pervades many of today's debates. The issue of media concentration has a long past and will have an even longer future. It is one of those fundamental issues of distribution of power and wealth that every generation needs to resolve. Now, that task has reached the Internet generation. The data and its analysis presented in this volume, we hope, will help in that process.

Bibliography

For the sources mentioned in this chapter, see the general bibliography at the end of this book.

p. 1346 p. 1348 # Data Tables/Appendix ↳

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Table 38-1A. National Media Concentrations—Arithmetic Average, 2012

	All Media	Platform Media	Content Media (W/Internet)	Content Media (W/O Internet)	News Media (by revenues)	News Media (by attention)	News Media by attention (w/o vChina)
HHI	3,729	4,026	2,906	2,692	2,818	3,006	2,793
C1	48.3%	52.9%	40.9%	38.8%	40.5%	41.8%	40.0%
C4	88.6%	93.3%	76.5%	75.6%	78.0%	78.3%	77.6%
Power Index	3,701	4,015	2,875	2,666	2,785	2,948	2,733
Noam Index			1,608	1,462	1,514	1,696	1,444
Voices			42	36	31	31	32
Cross-ownership			25.9%	24.4%	28.7%	28.7%	26.0%
Pooled HHI	1,824	2,908	1,132	1,298	1,466	1,586	1,341
Pooled C1	32.2%	42.6%	23.6%	25.5%	27.8%	28.3%	26.1%
Pooled C4	66.8%	86.7%	47.7%	52.5%	57.0%	57.5%	56.2%

Appendix

Who Dominates Print Publishing?

Daily newspapers are a concentrated industry with a world average HHI of 2,848.[26] Yet despite those high numbers, newspapers were among the less concentrated media. Even so, once one looks beyond worldwide averages to several specific countries, one can observe several astonishingly high shares of the top firms. In Chile, El Mercurio, 53.9%; in Ireland, INM with 52%; in Mexico, OEM with 59.4%; in Turkey, Dogan with 46.4%; in Australia, News Corp. with 57.5%; in Portugal, Cofinae with 42.2%; in Russia, Komsomolskaya Pravda with 39.6%; in Switzerland, INM in Ireland with 52%; Tamedia with 44.3%; in the United Kingdom, Murdoch with 32.5%; and in France, the Amaury Group with 30.2%. The countries with the lowest
p. 1342 concentrations are Germany and the United States, the latter with an unweighted industry HHI of 304 and ↳ a top share, by Gannett, of 9.9%. The low concentration is in part due to the mostly local or regional nature of American and German newspapers. On the local level, most US newspapers are unchallenged by other local daily newspapers.

News Corp's US share is 8.3%, but its worldwide market share and global power score are the world's highest for newspapers. The company's revenue in this industry is $8.4 billion, giving it a 7.9% share of the world newspaper market by revenue.

Magazine world average concentration is moderate (1,761 unweighted and 1,031 weighted). Despite the seemingly low entry barriers and the large number of titles, the magazine industry is often dominated by a few firms in an oligopolistic market structure. The world's most significant magazine firms are all US publishers: Hearst (8.6%), TIME Inc. (6.4%), and Advance (5.1%).

For book publishing, the worldwide market concentration of the industry is low (1,690 unweighted and 2,160 weighted). Most of the tens of thousands of publishing houses are small or medium-sized operations that produce only a few dozen titles each year. There are, of course, several major multimedia, multinational conglomerates with a major international presence. The combined market share of the world's top 10 book publishers is 42.9%. The world's largest privately owned book publishers by power index are mostly European firms: the German/UK Penguin Random House collaboration of Bertelsmann and Pearson (9.2% share of the global book publishing market), the French company Lagardère (Hachette) (5.3%), Murdoch's Harper Collins (3.2%), McGraw-Hill (2.7%), Italy's Fininvest Mondadori (1.8%), and Simon and Schuster of the Redstone Group (1.1%).

Exceptions with rising concentration are Russia (2,545), partly a relic of its past, partly the result of the two major private publishers AST and Eksmo merging in 2012. France's high book industry concentration (1,748) is led by the Lagardère Group with its high share of 29.4%. The Chinese government is the largest book publisher in the world by power index (1,590) due to its control over book publishing in a large market. Its world market share in revenue is also large (15.9%).

The summaries for Europe (chapter 33 in this volume, by Badillo, Bourgeois, and Lesourd) show an average concentration for daily newspapers of around 2,000 (lower than the worldwide average). For books, it is 1,896 (slightly above the world average), and for magazines, 2,116 (above world average).

What are the largest multi-channel platforms, and the largest providers of TV and video?

In multi-channel platforms, the United States' market dominates the world by volume: 64% of the world total by revenue, due to high penetrations, high prices, and an international presence of US firms such as Liberty, 21st Century Fox, DirecTV, and Dish. Per capita spending was highest in the United State ($502), reflective of the extent of subscribership, and also of high prices. In most other heavily cabled countries—Canada, Switzerland, the Netherlands, United Kingdom, Ireland, Finland, and Sweden—the spending was less than half of that.

By revenue, the top six companies in the world are American: Comcast ($36.8 billion 14.9%), DirecTV ($32 billion, 12.9%), Time Warner Cable ($20.5 billion, 8.3%), Murdoch's Fox/Sky ($17.8 billion, 7.2%), Dish Network ($13 billion, 5.2%), Cox ($7.6 billion, 3.1%), and Liberty ($7.6 billion, 3.1%). The top non-American firms are SkyPefecTV of Japan (1.8%), PRISA of Spain (1.1%), Globo in Brazil (1.5%), and Vivendi of France (1.2%).

Of the world's top 45 multi-channel platform firms, 5 are satellite-platform providers and 6 are IPTV providers, mostly incumbent telecom firms. The other 29 firms are cable TV platform providers. Of these, five are mixed cable/DBS or cable/IPTV providers.

The world's television broadcasters with the highest power indices are the Government of China (including its CCTV entity), Globo Group (Brazil); Prasar Bharati (India); and Fininvest (Italy). In terms of revenues, the BBC has 4.5%, p. 1343 ↳ Fininvest (Mediaset) 3.3%, Globo controls 3%, Comcast (NBC) has 4.1%, Disney 3.8%, Redstone 3.4%, Murdoch 3.1%, and Bertelsmann (RTL) 2.9%, with networks in several European countries. The global share of the top four firms is only 18.5% of this $184 billion international industry, as most terrestrial broadcasters limit their activities to their home countries. Nationally, however, market shares are high.

Many of the largest television broadcasters are national public service organizations. Prasar Bharati has a legal monopoly over TV broadcast television in India. In China, CCTV, with its several channels in multiple languages, has 59.1% of the national market, and the largest television audience in the world measured by total viewers. If one adds the other governmental TV operators, the state's share is 100%. State broadcast TV operations account for 83.6% in Taiwan, 70.9% in Russia, 57.9% in South Korea, 67.6% in South Africa, 50.1% in the United Kingdom, and 48.3% in Italy.

For the combined TV content industry—broadcasting and video channels (worth $255 million)—the largest companies by power index, revenue, and market share are four American companies and one British: Disney (76.6, $12.8 billion, 5%), Redstone (75.4, $12.3 billion, 4.8%), Comcast (68.8, $11 billion, 4.3%), Murdoch (75.4, $11 billion, 4.3%). The British entity is the BBC is also quite large (163, $8.2 billion, 3.2%). The next five largest are Bertelsmann, Time Warner, Fininvest, NHK, and ProSiebenSat.1. China's CCTV ranks in the top 10 as well when counted alone with a PI of 153, revenues of $6.6 billion (2.6% of combined video industries). By revenue, however, Disney and Redstone eclipse the combined Chinese state enterprises, which have an aggregate PI of 439, revenues of $11.2 billion, and 2.6% of the world market. The HHI of the combined video industries is 199.

Of the top 20 content channel companies (broadcast and cable), six are based in the United States, five in Japan, two in Italy, and three in Germany. No firm has more than 5% globally. This reflects the decentralized nature of broadcast TV in many countries, where most TV content is produced by local broadcasters for local markets.

The European HHI averages (see chapter 33) are, for radio, 2,968; for broadcast TV and for multi-channel platforms, about 3,000; for film, about 1,166. These concentrations are lower than world averages, except for radio.

Who dominates telecom and ISPs?

Wireline telecom providers have some of the highest revenues and power indices of any companies in this study. The top companies by power index, revenue, and market share of the wireline global market are quite huge and dominant: AT&T (254, $56.1 billion, 9.5%), NTT (567, $46.3 billion, 7.8%), Verizon (123, $39 billion, 6.6%), Deutsche Telekom (278, $29.1 billion, 4.9%), and Telefónica (245, $30.6 billion, 5.2%). By revenue, the largest are AT&T, Verizon, and NTT. The Chinese government has a power index of 448, revenues of $26.4 billion, and 4.5% global wireline market share: China Telecom is the state's largest component enterprise (154, $15.5 billion, 2.6%). India's top state firm Bharat Sanchar Nigam has a power index of 66.7, $4.9 billion in revenues, and a world revenue share of 0.8%.

National wireline concentration is often high, and often even higher than the numbers show, because the incumbents in several countries (such as the United States, Canada, and Argentina) operate on a regional basis and do not compete with each other in much of the wireline business. The wireline market is not as internationalized as the wireless market is. This is due to the advantages that many former (or current) state wireline operators enjoy, some by law and most by the advantages of incumbency. However, some of the larger incumbents, mostly European, leverage their scale, experience, and resources to buy into smaller markets. Internationalization of the wireline industry is common in many of the smaller markets, where older, more established, mostly European providers have been able to move in after the privatizations of the 1990s.

Mobile telecom is somewhat different, though many of the players are the same. However, they compete
p. 1344 with each other. The typical market structure for mobile wireless is three ↳ to four national footprints. Among the national operators, the incumbent traditional wireline operators, formerly the monopoly providers, typically has the highest market share, for example, Orange in France, NTT in Japan, Deutsche Telekom in Germany, Telmex in Mexico, Telefónica in Spain and Argentina. The number 2–4 firms are frequently foreign companies, often the national incumbents of other countries, for example, Orange, Telefónica, Deutsche Telekom. These firms then can use their domestic experience, resources, and economies of scale (and the needs of developing markets) into increasingly global footprints. This process is still taking place. At present, there are over a dozen of such firms. Consolidation is likely, probably through international partnerships. In Europe, the EU Commission is actively encouraging such consolidations.

By revenue, the leading mobile operator is the Government of China (power index of 1,709; $127 billion in revenues, and 17.1% of worldwide revenues), comprising of the three state-owned firms: China Mobile (698; $80.8 billion; 10.9%), China Unicom (79, $27.2 billion, 3.7%), and China Telecom (35.4, $18.2 billion, 2.5%). The other top firms are Vodafone (6.8%), AT&T (7.1%), NTT (4.9%), Verizon (7.3%), Softbank (6.5%), Deutsche Telekom/T-Mobile (4.9%), France Telecom/Orange (3.5%), America Móvil/Claro (4.9%), and Telefónica (5.6%).

The markets of wireline telecom, mobile wireless, and ISPs are closely related. If we add up their major participants, we find the following: the top 10 firms by market share are the Government of China, 11.6%; AT&T, 7.8%; Verizon, 6.5%; NTT, 6%; Telefónica, 5.1%; Deutsche Telekom, 4.7%; Vodafone, 4.2%; Softbank, 3.27%; Grupo Carso, 3.7%; and Orange, 2.9% (see chapter 35). The C4 is 32% and the C10 is 56.2%. The three industries' combined global (W-HHI) concentration is 276.

Across Europe, the platform industry averages are 4,264 for wireline, 3,119 for wireless, and 3,056 for ISPs (chapter 33). In all cases, these concentrations are below the world averages.

Notes

1. Our "world" consists of the 30 countries and 13 media industries. While these countries account for 82% of the world GDP and 64% of its population, it under-represents the less developed countries. We add a brief discussion of 11 of the largest countries that were not included, and which account for another 15% of the world's population.
2. "Content media" include newspapers, magazines, book publishing, film, radio, broadcast television, video channels, search engines, online news media, and one-third of the multi-channel industry's total revenues.
3. "Platform media" include wireless and wireline telecom, ISPs, and two-thirds of multi-channel industry revenues. The allocation for the multi-channel industry is based on its dual role or both platform and content aggregator, and approximates the cost shares.
4. According to the International Federation of the Phonographic Industry Report 2012, as reported by Billboard: <http://www.billboard.com/biz/articles/news/digital-and-mobile/1549915/ifpi-digital-music-report-2013-global-recorded-music>.
5. US Bureau of Labor Statistics, *Consumer Expenditure Survey*, September 2013.
6. For many people telecommunications and Internet connectivity is increasingly becoming a necessity.
7. US Census Bureau, *Statistical Abstract of the United States: 2011*, Table 1130, attributed to Suhler Stevenson, New York, NY, *Communications Industry Forecast*, annual.
8. They are trivially higher in Finland, Russia, and the Netherlands.
9. If one looks only at content media, these figures would scale up by about three times, with broadcast TV the largest at 21%.
10. To check for robustness with respect to the high-population countries, we calculated the following: For "all media," the weighted HHI is 3,253. Taking out China—a highly concentrated market with a large population—changes the HHI to 2,637. Taking out both China and India results in an HHI of 2,631. When the United States, which makes up approximately one-third of all media revenues in the world, is also excluded, the HHI rises to 3,283. Thus, the results are fairly robust with respect to India and the United States. China has the biggest impact, and we therefore provide in the tables also measures without it.
11. "Attention time" is explained below.
12. seeking to acquire DirecTV in 2015.
13. seeking to acquire AOL in 2015.
14. Rebuffed in attempt to acquire Time Warner Cable in 2015.
15. Seeking to merge with Charter and Bright House in 2015.
16. These are substantial growth rates and they must be properly interpreted. The exponential nature of the HHI means that a rise in absolute terms gets magnified in its squaring. The increase in the HHI due to an increase in the market of a company by one percent is $\frac{dHHI}{dS_i} = \frac{2^{*}100}{S_i}$. For example, if a company's share rises from 30% to 31%, the HHI rises by 61 points, which is as a percentage change of the contribution to the HHI by that firm, is 61/900=6.77%. If there are three firms, each with a 30% share rising to 31%, the overall HHI would rise by the same percentage. In other words, the 1% increment in these firms' shares (for a C4 increase of 3%) increased the HHI contribution by 6.77%. This is about double the C4 increase in percent terms. The exact ratio will depend on the various market shares. But a rough estimate is the square root of the change in the HHI gives an order of magnitude for the increase in the market shares similar to the C4.
17. For all concentration measures averaged together, there was an increase of 0.5%. This number represents an average of the growth rates for HHI and pooled HHI, the National Power Index, and the pooled and weighted C1s and C4s in the United States.
18. To recapitulate: The figures for China represent the primary measure we use for common control state media firms, that is, of "integrated" concentration, whether run by different ministries or levels of a government. We present a second measure for China as well, that of a "segmented" concentration measure, which treats each state enterprise as an independent entity. For platforms, the "segmented" average HHI for China is still a high 4,276 because all telecom companies are state-owned. The same integrated approach is also taken for state holdings in Egypt, Taiwan, and Russia. It is also used for the different media properties of the same company or proprietor, across industries, countries, and corporate entities if they share controlling owners, as in the case of Murdoch (21st Century Fox and News Corp.), Redstone (CBS and Viacom), and Malone (Liberty).
19. Aggregating the regional stations and networks.
20. In France, this is accomplished through the favored licensing of Vivendi's Canal Plus, whose film production arm, Studio Canal, finances over 60% of French-made films.
21. In the United States, the opposite trend occurred; the deregulation of ownership rules led to a consolidation of a previously atomistic industry. But this, in turn, was challenged by new platforms: satellite radio, cable-based music channels, and online music providers.
22. The latter is the only non US content media firm in the top 20 that is not controlled by an individual family, after having been owned by a group led by Haim Saban.
23. The reason for a range is to account for different multiples of value to revenues. The upper bound figure is based on a 2014 average for US media industries (2.07). The lower bound is a conservative multiple of 1.0.
24. Examples are Chan (1993); Chu (1994); Kennedy (2009); Lee (2006 and 2007); Liu (2006); Stockmann and Gallagher (2011); Qin et al. (2014, in progress); Winfield (2005); Wu (2000); Zhao (2000).
25. Hervas-Drane and Noam (2013).
26. Weighted market-size average was significantly lower, at 1,328, suggesting that smaller and poorer countries have higher

concentrations.