

Hal Varian March 9, 2010 (revised March 13, 2010)

#### Economics of newspapers



- Review some of the economic facts about newspapers
  - Revenues and costs
  - Advertising level, change and composition
  - Examine how internet has impacted ad revenue
  - Examine how internet has impacted reader use patterns
- Speculate about what might turn things around
  - Business opportunities
  - Technological opportunities
- Data sources
  - US Statistical Abstract
  - Newspaper Association of America Trends and Numbers website
  - Pew Foundation
  - Academic books and publications

#### Revenue and costs



#### Revenue (%)

#### Costs as % of revenue

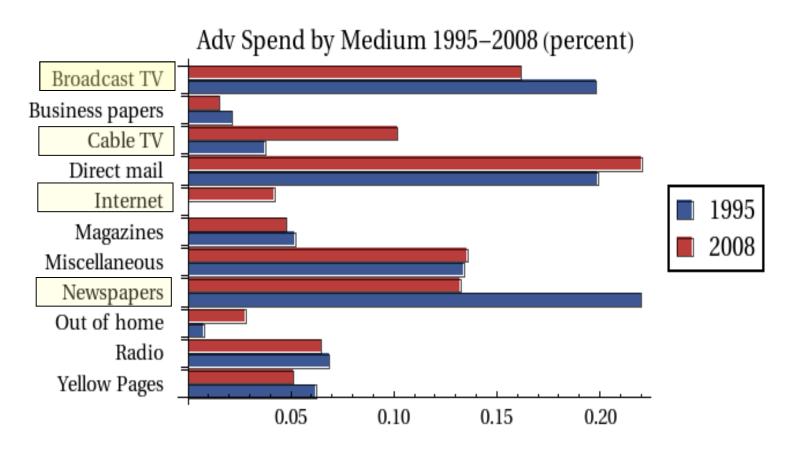
Advertising		80	Core		35%
Retail	40%		Promotion	12%	
Classified	32%		Editorial	14%	
National	8%		Administrative	9%	
Sales		20	Prodn & Distn		52%
Newsstand	17%		Production	20%	
Subscription	3%		Distribution	14%	
Total	100%	100	Raw materials	18%	
			Total	87%	87%

Internet distribution could cut production costs by at least half.

### Ad spend in US by medium: 1995-2008



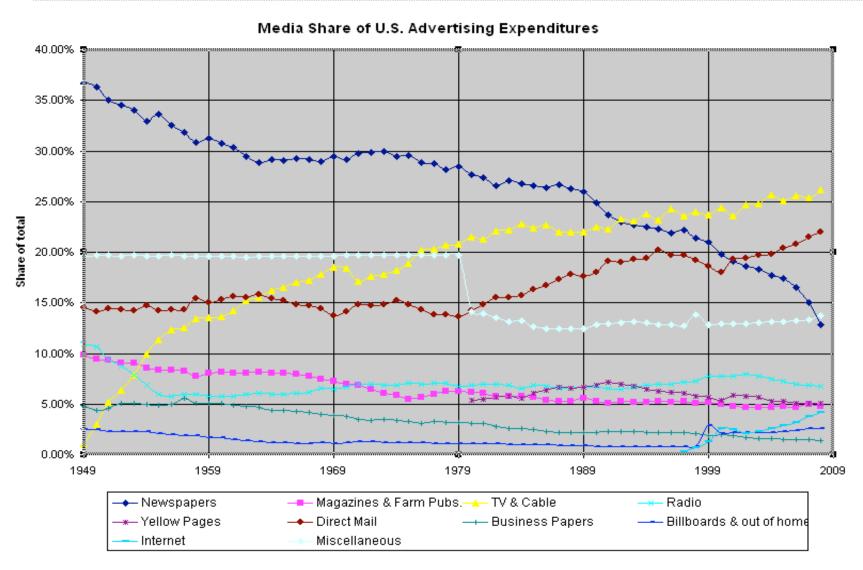
Note drop in newspaper and TV revenue, rise in cable TV, relative constancy of direct mail, and rise in internet spend. Note that newspaper ad revenue is 3 times as large as internet ad revenue.



Source: US Statistical Abstract

### Media share of US Advertising 1959-2009



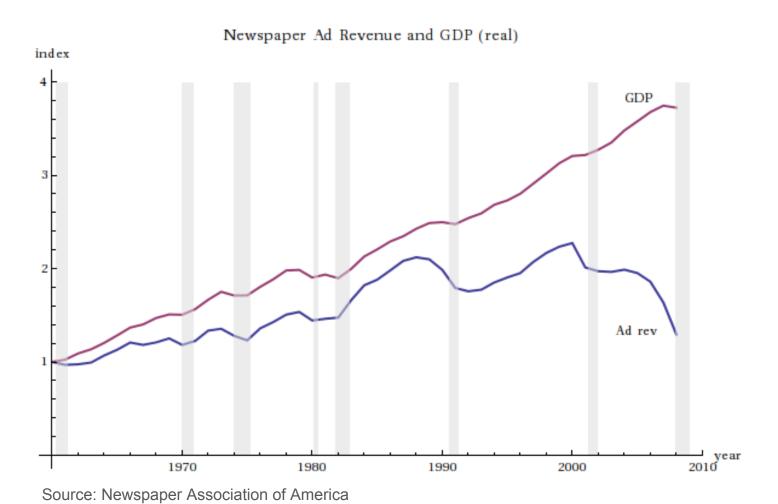


Source: Martin Langeveld at Nieman Journalism Lab; data from NAA, TVB, IAB, McCann

### Newspaper ad revenue and GDP (constant dollars) Google



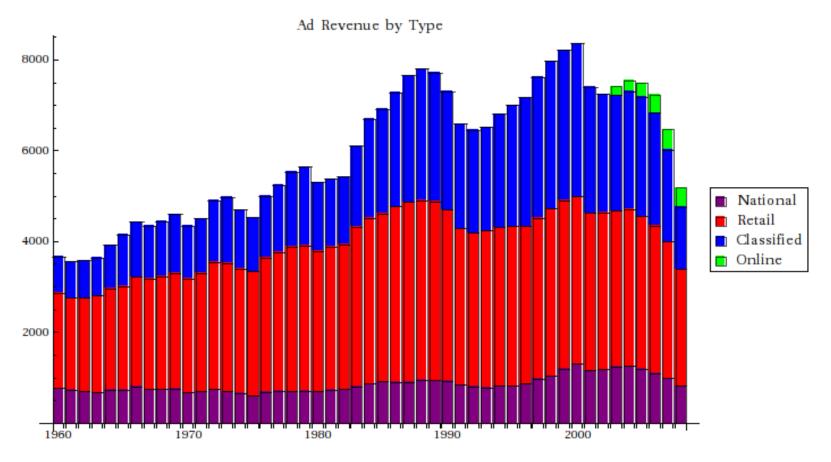
GDP and newspaper ad revenue drop during recessions. Inflation-adjusted newspaper ad revenue stagnated way before the internet became popular.



### Ad revenue by type (constant dollars)



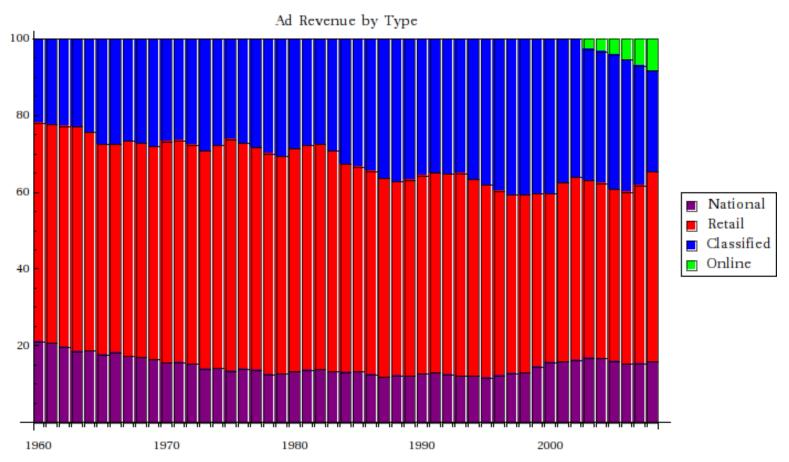
Online ad revenue is about 8.2% of total newspaper ad revenue. Local retail ad revenue has grown, but national brand advertising and classified have declined.



### Ad revenue by type (proportions)



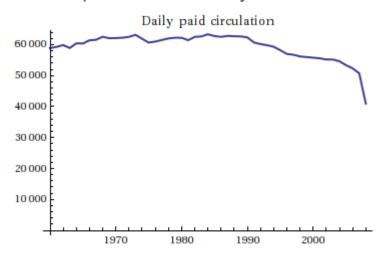
In the last 5 years, classified revenue has declined in relative terms and online has grown, but is still a tiny fraction of total.



#### Revenue and circulation

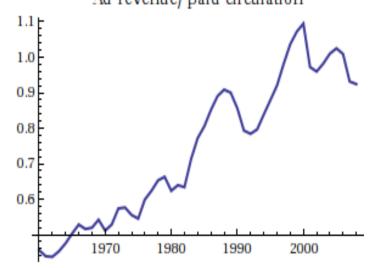


Circulation has declined since 1990 and collapsed in the last 5 years

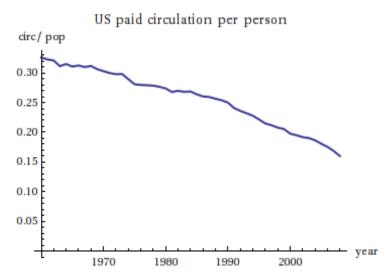


Revenue per paid circulation has increased over time, but declined recently

Ad revenue/ paid circulation



Circulation per capita has been declining for decades

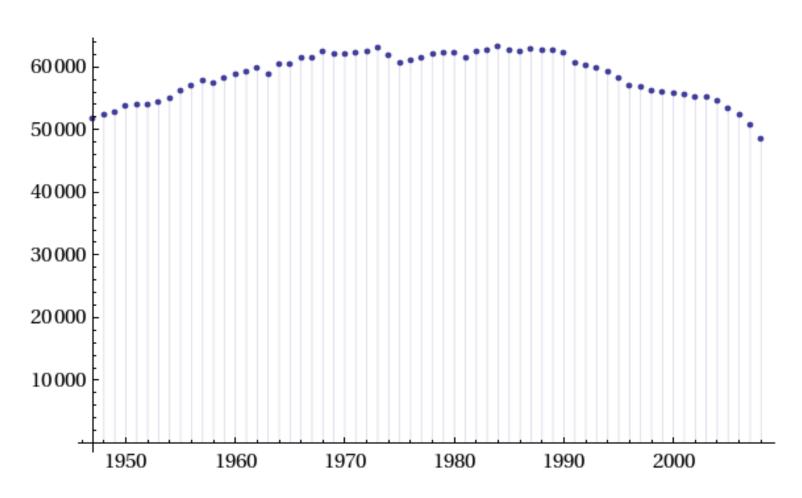


Long term problem: circulation Short term problem: ad prices

### Daily newspaper circulation (000)

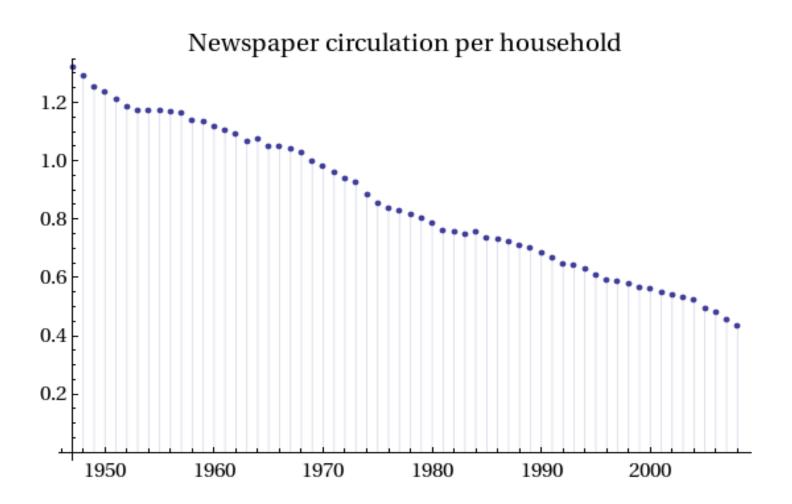


#### Daily newspaper circulation



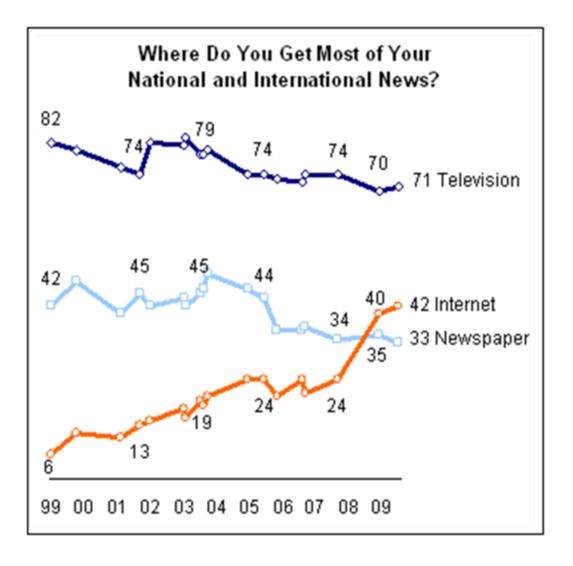
### Circulation per household





#### Trends in news access





### Access to news via mobile phones



How many get news by phones?

26% of all Americans

43% of those under 50

15% of those over 50

What do they look for?

72% weather

58% current events

Multiple sources?

60% get news from online and offline sources

46% said they use 4-6 different media

80% get news from emailed links

Source: Pew Research

#### Online and offline access to news



- Online for month of June 2009
  - Unique audience: 70 million
  - Web page views: 3.2 billion
  - Sessions: 600 million
  - Pages per person: 49
  - Sessions per person: 8.5
  - Time per person: 38 min

- Online page views of news are only 3% of total news page views!
- Less than 1% of time spent online is at newspaper sites.
- But people access online news often...

- Offline for 2008
  - Unique audience: 117 million (2.12 readers per copy)
  - Pages read per day: 24?
  - Page view per month: 87 billion per month
  - Online page view/Total page views = 3.2%
  - Time spent online news/Time spent total news = 3%
- http://www.niemanlab.org/2009/04/print-is-still-king-only-3-percent-of-newspaper-reading-actually-happens-online/

### Online news consumption



1124. Online News Consumption, by Selected Characteristics

See notes

	"Ever" get news online			Got news online "yesterday"			
Characteristic	2000 (percent)	<b>2004</b> (percent)	2008 (percent)	<b>2000</b> (percent)	<b>2004</b> (percent)	2008 (percent)	
Total Adult Internet Users	60	72	73	22	27	39	
Age:							
18 to 29 years old	56	71	73	16	21	41	
30 to 49 years old	63	74	77	25	32	44	
50 to 64 years old	57	72	72	25	27	35	
65 years old and over	53	61	61	28	22	25	
Sex:							
Male	66	77	75	29	34	48	
Female	53	66	72	16	21	31	
Race/ethnicity:							
White, non-Hispanic	60	72	73	23	28	41	
Black, non-Hispanic	63	71	69	13	17	37	
English-speaking Hispanic	57	75	69	23	30	31	
Annual household income:							
Less than \$30,000	55	67	63	21	18	21	
\$30,000 to \$49,999	57	73	73	20	28	33	
\$50,000 to \$74,999	63	76	78	22	30	46	
\$75,000 or more	69	74	79	31	36	53	
Frequency of internet use:							
Daily	66	78	83	33	39	52	
Several times per week	59	66	59	17	9	15	
Less Often	51	50	38	12	1	3	
	+						

Source: Pew Internet & American Life Project Surveys from March 2000; May-June of 2004; and April-May 2008.

## Media usage by consumers



Table 1089. Media Usage and Consumer Spending

See notes

Media	Unit	2005	2006	0007	0000	0000	0010	0077
		2003	2000	2007	2008 projection	2009 projection	2010 projection	2011 projection
Total	Hours	3,548	3,530	3,532				3,624
Television	Hours	1,659	1,673	1,686	1,704	1,714	1,728	1,742
Broadcast Television \2	Hours	679	676	676	678	673	-	669
Network stations	Hours	582	599	603	604	598	598	593
Independent stations \3	Hours	97	77	73	74	75	75	76
Cable, Satellite & RBOC TV Services \2	Hours	980	997	1,010	1,027	1,041	1,055	1,073
Basic cable, satellite & RBOC TV	Hours	807	835	849	865	877	891	913
Premium cable, satellite & RBOC TV \3	Hours	173	161	161	162	164	164	159
Broadcast and satellite radio \2	Hours	805	778	769	768	760	758	751
Recorded music \2	Hours	196	186	171	165	168	174	185
Newspapers \2	Hours	187	178	172	168	162	158	154
Pure-play internet services \2	Hours	169	177	181	183	184	184	183
Out-of-home media	Hours	130	133	137	141	145	149	154
Consumer magazines \2	Hours	124	121	119	117	114	112	110
Consumer books \2	Hours	107	108	108	108	109	109	110
Videogames \2	Hours	73	76	82	90	91	94	100
Home video \4	Hours	63	62	64	66	68	70	70
Yellow Pages \2	Hours	12	13	13	13	13	12	12
Box office \2	Hours	12	12	13	13	13	14	14
Pure-play mobile services \2	Hours	9	12	16	21	28	33	38
In-flight entertainment \2	Hours	1	1	1	2	2	2	2

## **Daily Internet Activities**



#### 1123. Typical Daily Internet Activities of Adult Internet Users

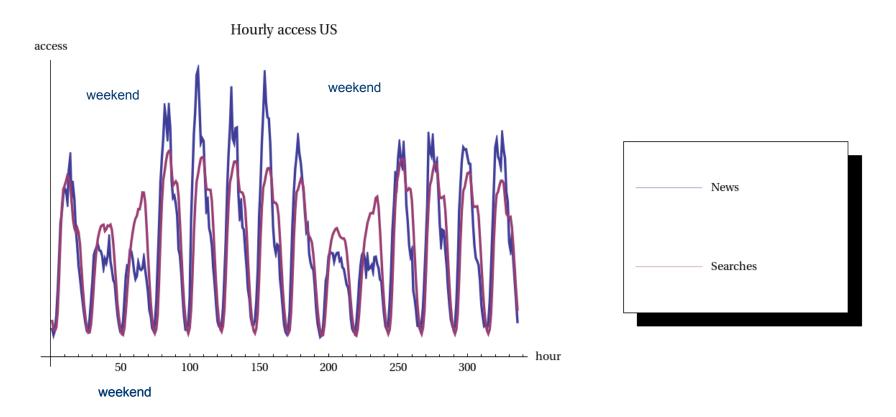
See notes

Activity	Survey date (month, year)	Total Internet users (percent)
Send or read e-mail	Sept., 07	56
Use a search engine to find information	May, 08	49
Get news online	May, 08	39
Check weather reports and forecasts online	May, 08	30
Look for news or information about politics	May, 08	23
Do any banking online	Sept., 07	21
Watch a video on a video-sharing site	May, 08	16
Use a social networking site	May, 08	13
Send instant messages	May, 08	13
Visit a local, state or federal government web site	May, 08	13
Get financial information online	Sept., 07	10
Buy a product online	Sept., 07	6
Look online for info about a job	May, 08	6
Use online classified ads or sites like Craig's List	Sept, 07	6
Create or work on your own online journal or blog	May, 08	5
Buy or make a reservation for travel	Sept., 07	4
Rate a product, service, or person	Sept., 07	4
Participate in an online auction	Sept., 07	3
Download a podcast so you can listen to it or view it later	May, 08	3
Make a donation to a charity online	May, 08	1

Source: Pew Internet & American Life Project Surveys.

# Online news accessed while working, offline news accessed during leisure time





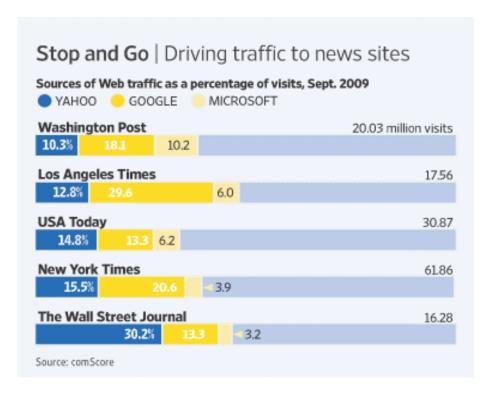
- Good news: online news can reach people when they were not accessible before
- Bad news: they don't have much time to read it
- Possible solution: turn online news into a leisure time activity (mobile phones, tablets, etc.)

Source: Google

### Value of clicks sent to newspapers



- According to comScore, search engines drive 35%-40% of traffic to major US new sites
- Assuming that this monetizes as well as other traffic, this means search engines are driving about same fraction of online ad revenue
- But online ad revenue is only 5% of the total
- The search click sent to newspaper includes the query that generated that click, so we can classify the kinds of clicks that newspapers receive from search engines



### Search clicks to newspapers



- Recall that search is encoded in referrer URL
  - So you can see the query associated with news clicks
  - Compare queries that go to "newspapers" to general queries
  - Aggregate this up to categories
- Where are the (proportional) differences?
  - Many more news clicks for Sports, News & Current Events, Local
  - Fewer news clicks for Travel, Health, Shopping
  - About the same for Entertainment, Computers & Electronics
- Where's the money?
  - Travel, Health, Shopping, Computers & Electronics
  - Basically online world reflects offline: news, narrowly defined is hard to monetize...
  - Despite the fact that it is frequently and widely accessed

### Newspapers never made money from news



#### Where did newspapers make money?

Business page, Automotive, Home and Garden, Travel, Real Estate, Technology

**Not** the front page – the news

Where do consumers go now for this information?

Yahoo Finance, Edmunds, Amazon, Orbitz, Zillow, etc.

#### Contextual targeting works!

People who visit the auto page are interested in autos

But what ad do you show next to an earthquake story?

#### Three big problems for newspaper advertising

Cross subsidization model no longer works: people go online to specialized sites for purchases, bypassing newspapers

It is hard to do contextual targeting for pure "news"

People spend much less time reading online news compared to offline news

### Revenue by advertising verticals for newspapers



Vertical	percent
General Merchandise	20.60%
Financial	14.01%
Home Supplies / Furniture	10.46%
Computers / Electronics	8.66%
Food	7.52%
Coupon Marketing Organizatior	5.28%
Hobbies / Toys / Sports	4.32%
Apparel & Accessories	4.08%
Building Materials	3.99%
Public Service Utils/Telecom	3.61%
Transportation/	3.22%
Motion Pictures	2.86%
Miscellaneous	1.74%
Automotive Aftermarket	1.69%
Publishing/Media	1.35%
Automotive	1.32%
Political/ Government	0.87%
Mail Order	0.59%
Medical/Toiletries	0.47%
Records / Books / Cards	0.45%
Insurance	0.44%
Apparel	0.36%
HH Equipment/Appliances	0.34%
Business	0.30%
Computer Equipment	0.29%

#### Value of news



- This doesn't mean that news isn't valuable to users
  - Over half of internet users read news online
  - But they don't spend much time on it
- Can you charge for news?
  - Raw news may not be highly differentiated
  - Problem of Bertrand competition: with undifferentiated product, price gets competed down to marginal cost
  - So have to have significant product differentiation to be economically viable
    - Local high school football scores (but what about twitter?)
    - Specialized industry content
    - Something that cannot easily be imitated
- And (of course) news is hugely valuable from a societal point of view

#### Conclusions



- Newspaper ad revenue is where it was in 1982 in inflation-adjusted dollars. Revenue per reader has grown, but number of readers has dropped dramatically: paid circulation per capita is half what it was in the 60s.
- The medium with the largest increase in ad revenue since 1995 is cable TV, not the internet. Total newspaper ad revenue is 4 times as large as online ad revenue.
- Online readership is only 3% of total readership in terms of time or pageviews; ad online revenue is only 8.2% of total newspaper revenue. Time spent per online newspaper visit is a bit more than 1 minute per day, compared to 25 minutes per day for offline reading.
- Search engines provide 35-40% of traffic to major US newspapers sites, but in general, clicks to newspapers are not in highly monetizable verticals.
- Newspapers used to cross-subsidize news with more commercial sections. However, this has become much more difficult to do because of the fact that online readers tend to access news narrowly defined, which is difficult to monetize.
- Access to online news is a labor-time activity, while traditional access to offline news is a leisure time activity. Increasing leisure-time access to news may be promising.

#### What can be done?



- Online newspapers need more user engagement
  - Engagement is currently low, need to increase it
  - Experiment, experiment, experiment!
    - Living Stories, Starred Stories, Fast Flip
- New devices may affect reading habits
  - Computer access to online news happens at work
  - Tablets may make a big difference in engagement
  - Interactive graphics, video, unique content, etc
  - Merge TV, magazine, radio, newspaper experience
- Newspapers should better exploit the information they have
  - Direct measures of what users seek and what they read
  - More product reviews, more video, more local news
  - Better ad effectiveness measurement
  - Better contextual targeting

#### **General Sources**



- Newspaper Association of America
  - Trends and Numbers
  - http://www.naa.org/TrendsandNumbers.aspx
- US Statistical Abstract
  - <u>http://www.census.gov/compendia/statab/</u>
- Harold L. Vogel
  - Entertainment Industry Economics, Cambridge
- Pew Research, <u>www.pewtrusts.org</u>
- Martin Langeveld,
  - CIRClabs, <u>www.circlabs.com</u>
  - Nieman Journalism Lab, Harvard Univ, <a href="www.niemanlab.org">www.niemanlab.org</a>

### Sources by slide



- 02: Vogel, H, Entertainment Industry Economics, 7th edition, page 343
- 04: http://www.census.gov/compendia/statab/2010/tables/10s1243.xls
- 05: Martin Langeveld at Nieman Journalism Lab http://www.naa.org/TrendsandNumbers/Newspaper-Websites.aspx
- 06: http://www.naa.org/TrendsandNumbers/Advertising-Expenditures.aspx
- 07: http://www.naa.org/TrendsandNumbers/Advertising-Expenditures.aspx
- 08: http://www.naa.org/TrendsandNumbers/Advertising-Expenditures.aspx
- 09: http://www.naa.org/TrendsandNumbers/Total-Paid-Circulation.aspx
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- 22:http://www.naa.org/TrendsandNumbers/Advertising-Expenditures.aspx