





From Attention to Engagement

The Transformation of the Content Industry



March 6, 2012

This presentation was given by Lear Center Director Martin Kaplan at a public forum in Barcelona. The event was sponsored by the Barcelona Media Center.





From Attention to Engagement

the transformation of the content industry

Professor Martin Kaplan

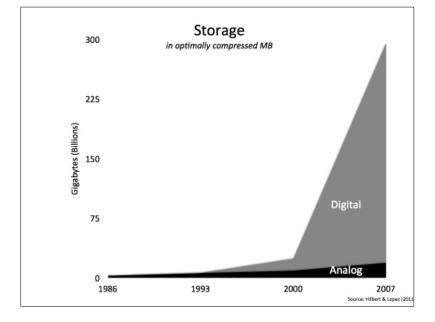
Director, The Norman Lear Center Annenberg School for Communication and Journalism University of Southern California

Barcelona Media

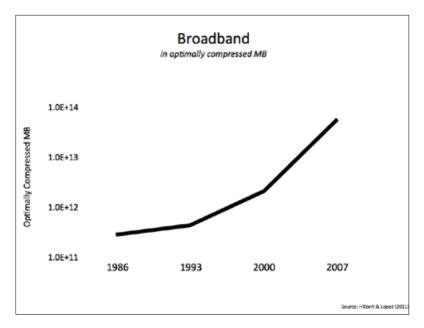
March 6, 2012 Barcelona Spain I'm honored to be part of the celebration of the 10th anniversary of Barcelona Media.

the power of technology

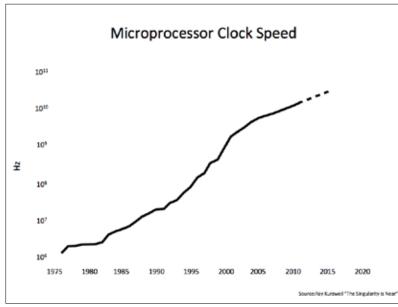
In the decade since BM began, there's been explosive growth in the power of technology –



growth in storage...



...in broadband...



...in speed...an explosion of technological power that has caused...

1.8 zettabyes of information

...an explosion of information. Today there is an estimated 1.8 zettabytes of information – that's 1.8 trillion gigabytes.

"That's as many bits of information in the digital universe as there are stars in the physical universe."

Source: Xerox

Eric Schmidt: Every 2 Days We Create As Much Information As We Did Up To 2003



Every 2 days we create as much information as we did up to 2003.

Every 2 years the world's information doubles.

average person
average day
34 gigabytes of information

One study of the U.S. found that an average person on an average day was bombarded by 34 gigabytes of information, and that's just in the home.

How much information is that? Too much.



What information consumes is rather obvious: it consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention

Herbert Simon

This is Herbert Simon, winner of the 1978 Nobel Prize in Economics. In 1970, he said this:

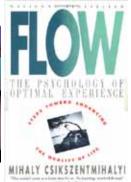
"What information consumes is rather obvious: it consumes the attention of its recipients."

Information consumes attention.

"Hence a wealth of information creates a poverty of attention" because we don't have infinite attention. We don't multitask – we oscillate. Our days have limited time, and bodies have limited bandwidth.

Mihaly Csikszentmihalyi





110 bits per second

Here is how Mihaly Csikszentmihalyi, the author of *Flow*, put it:

(clip plays)

"Our nervous system is incapable of processing more than 110 bits of information per second. In order to hear me and understand what I'm saying, you need to process about 60 bits per second. That's why...you can't understand more than two people talking to you."

(You can watch the clip online here: http://youtu.be/fXleFJCqsPs)

Attention is a zero-sum game.



What information consumes is rather obvious: it consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention and a need to allocate that attention efficiently among the overabundance of information sources that might consume it.

Herbert Simon

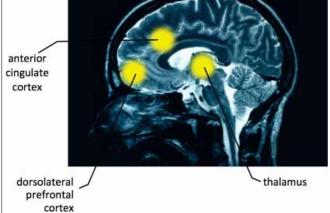
"A wealth of information creates a poverty of attention and a need to allocate that attention efficiently among the overabundance of information sources that might consume it."

Information is abundant, but attention is scarce, and desirable. We live in an attention economy where we compete with one another for attention.

But that competition takes place in two different marketplaces, because there are two kinds of attention, governed by two systems of the brain.

And only one of those systems can even try to allocate attention efficiently. The kind of attention that we attempt to regulate consciously is called

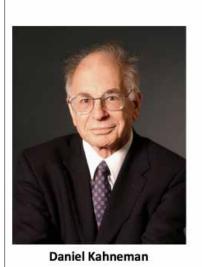


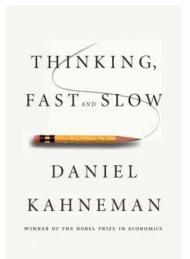


Top-down attention. It involves the anterior cingulate cortex, the dorsolateral prefrontal cortex, and the thalamus.

This is the brain's executive function. We have some control it. It's rational.

System 2 is the name given to this part of the brain by...

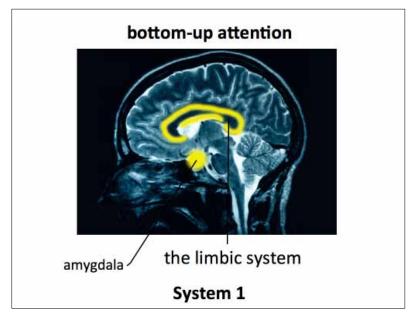




Daniel Kahneman, a psychologist who won the Nobel Prize in economics in 2002.

In his new book, *Thinking Fast and Slow*, he explains System 2.

But there's another kind of attention –



Kahneman calls it System 1. It's also known as bottom-up attention. It's at the mercy of the limbic system, and the amygdala, which are involuntary.

This part of the brain pays attention instinctively, emotionally, even irrationally. It pays attention, whether we want it to or not. We can't help it; it's in our wiring.

So the power of technology causes an abundance of information creating a scarcity of attention which is the currency spent by two systems of the brain.

Anything causing those systems to spend that currency – anything with...

...the power to occupy our attention – is valuable.

What has that power?

the power to occupy attention

danger
sex
novelty
play
story
celebrity

Danger, Sex, Novelty, Play, Story, Celebrity...

danger



Danger: If we didn't pay attention to danger, we'd be dead. Once, it was a saber-tooth tiger. Today, it might be the fear of crime, or the fear of foreigners, or the fear looking old.

sex



Sex: We are programmed to desire.

A sexy person, a sexy object, automatically makes our head turn.



Novelty: 50,000 years ago, people survived because they noticed the new. "Neophilia" is in our brain.

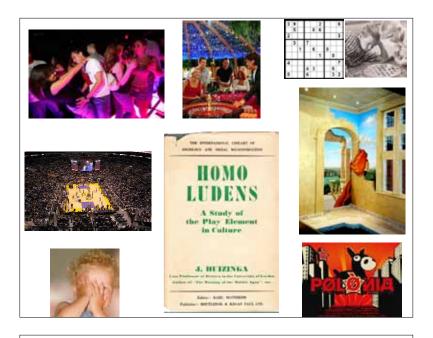


Today, every other product on the supermarket shelf shouts "New!" because that's what catches our eye.

play



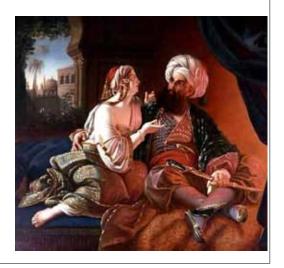
Play: We played with toys when we lived in caves.



We are born to play. Our attention is captivated by sports; rhythm; games of chance; number games, board games. We love visual play – imitation, illusion, magic. We love to play with words, to joke, to make fun of people.

J. Huizinga said we are Homo ludens, the animal that plays, and that all of human culture can be derived from the play instinct.

story



Story: If we hear "Once upon a time," our attention is captured. Scheherazade saved her life by telling stories that never ended.



Celebrity: Fame is a magnet. Attention attracts more attention. We look where others' eyes are looking.

There is a word that means: something able to capture our attention.

Entertainment (entaità nment). 1531. [f. as prec. +-MENT.] †1. The action of taking into service; service, employment -1662. Also teoner. pay, wages -1709. †2. Support; sustenance -1761. †3. Treatment -1660. 4. Occupation (of time). Now rare. 1551. 5. The action of occupying attention agreeably; that which affords interest or amusement; esp. a public performance of a varied character 1612. †6. Accommodation -1721. †7. Reception; manner of reception -1692. 8. The action of receiving a guest 1594. b. concr. Hospitable provision for the wants of a guest (now arch.) 1510. c. A meal; esp. a banquet. Now rare. 1607. 9. The action of receiving, of taking into consideration, or of harbouring 1586.

1. The Saxons. desirous of intertainment to serue in warres HOLINSHED. 3. The savage e. He met with in it [the World] BOYLE. 4. L. L. L. V. i. 126. 5. An Oration. to give the visitours intertainment 1612. Importunate for dramatic entertainments Emerson. 7. Ant. & Cl. III. xiii. 140. 8. Hezekiah's e. of them with gladnesse 1649. b. Great deal of company, but prore. Perys. Comb. Entertainment tax 1918. Enterta-ke, v. [cf. F. entreprendre.] trans.

The action of occupying our attention agreeably.

What is this the definition of?

Entertainment.

3. One who

ASM 3). C son. 1764.

z. b. It is are not, that

Enthusia

Gr. evbour

possession

Characteriz

transf. qui:

z. transf. E. admirers stical a. (in

†B. sb. = Enthym a. 1588. Of, pertain consisting Enthym enthymema

A. adj. 11

The root of entertain is tenir – to hold. What is held is our attention, and the content that holds it is entertainment. And the power to do that is not trivial.

The power to occupy attention is political power.

The first person to notice this, 2500 years ago, was...

the power to occupy attention = political power



Plato



...Plato.

In *The Republic*, Plato designed an ideal state whose ruling principles were reason and order. The biggest threat to reason and order was poetry.

In Greece, the bards who performed the poetry of Homer were rock stars. They were famous. They competed for big prizes. Tens of thousands of people came. They were driven wild with weeping and cheering.



Plato





"...pleasure and pain will be lords of your city instead of law and reason."

So when Plato says poetry, we should think "entertainment." The problem with poetry, Plato said, is that it can enchant an audience. It has access to our bodies. It can bypass our reason. No matter how smart we are, even if we think we know better, our minds are no match for its magic.

Poets, he said, "water and foster the emotions of sex and anger and all the appetites of our souls." Poetry makes our appetites our rulers, when they ought to be ruled. If you grant poetry admission to *The Republic*, "pleasure and pain will be lords of your city instead of law and reason."

So in Book X of *The Republic*, he banished the poets. The only way to ensure order was to exile the entertainers.



The Romans, of course, welcomed entertainment – the "circuses" part of "bread and circuses" – as a way to control people.

But Plato and the emperors agreed that the power to entertain is political power.



Thousands of years later, for modern, sophisticated people like us, are we immune to its power?

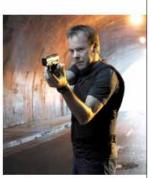
Entertainment still turns us on. It still possesses us. We lose ourselves in it. We are captivated, spellbound, entranced, enthralled, Enthralled means enslaved.

Plato worried that poetry confuses reality and illusion. Even if we know it's only pretending, it's only entertainment, it makes us believe things that are not true.

Surely we have evolved past that, haven't we?







Do you know the TV series 24? In one of its best-known storylines, Jack Bauer interrogated terrorists.

(clip plays)

Reporter: Torture as a tool. It is used often and effectively in Fox TV's counterterrorism drama 24.

Jack Bauer: 4 cc's!

Reporter: That's 24's good guy torturing his own brother. Jack Bauer, the tough, sensitive undercover operative, justifies his actions to save America from Islamic extremists who have just detonated a nuclear bomb in Los Angeles.

Ken Robinson, terrorism analyst: The United States military is concerned about it because they've started receiving evidence that soldiers in the field have been impacted by it in Iraq, utilizing techniques they've seen on 24 and then taking them into a environment in the interrogation booth.

That's why the dean of the U.S. Military Academy at West Point flew to Hollywood to meet with the writers and producers of 24: to explain that real US soldiers – instead of paying System 2 attention to their teachers and their textbooks; instead of learning that torture is wrong, and produces false information – instead of that, our smartest young soldiers believed what System 1 told them, believed what this fictional, made-up TV story told them about torture.

We may think that Plato's solution – banishing entertainment – is wrong for democracies, but that doesn't refute his case that the power to entertain is political power.

Now the entertainment industry, of course, doesn't think of itself as a curriculum or an agent of political power. It's a business.

When we say that entertainment wants us to...

pay attention

...pay attention to it, it is not just a figure of speech. We do pay.

attention is monetized

Our attention is monetized by the entertainment industry.

the power to occupy attention = political power the power to occupy attention = economic power So the power to occupy attention is not only political power. The power to occupy attention is also economic power, which I suppose is a kind of political power.

The business model of the entertainment industry, as you know, has two parts.

distribution

One is distribution.

It sells content – objects and experiences. Sometimes the transaction is a purchase, and sometimes it's a subscription.

Often it's the same content, over and over, at different times on different platforms, at different prices with different profit margins.

distribution advertising

The other part of the business model is advertising.

The industry sells the attention of audiences to advertisers.

Now ads are also entertainment. Like the content they're embedded in, they want to capture our attention with stories, images and music. They play on our fears. They arouse our appetites. They can bypass the System 2 radar of our reason and go straight for System 1.

I'm going to show you one ad. As you watch, try to pay attention to the voice.



(clip plays)

When you're depressed where do you want to go? Nowhere.

Who do you feel like seeing? No one.

Depression hurts in so many ways. Sadness, loss of interest, anxiety. Cymbalta can help. Cymbalta is a prescription medication that treats many symptoms of depression.



Tell your doctor right away if your depression worsens, if you have unusual changes in behavior or thoughts of suicide. Anti-depressants can increase these in children, teens and young adults.

Cymbalta is not approved for children under 18. People taking MAOIs or thioridazine or with glaucoma should not take Cymbalta.

Taking it with NSAID pain relievers, aspirin or blood thinners may increase bleeding risk. Severe liver problems, some fatal were reported. Signs include abdominal pain and yellowing of the skin or eyes.

Talk with your doctor about your medicines, including those for migraine, or if you have high fever confusion and stiff muscles to address a possible life threatening condition.

Tell your doctor about alcohol use, liver disease and before you reduce or stop taking Cymbalta. Dizziness or fainting may occur upon standing. Side effects include nausea, dry mouth and constipation.

Ask your doctor about Cymbalta.

Depression hurts. Cymbalta can help.

(You can watch the clip online here: http://youtu.be/OTZvnAF7UsA)

The warnings are required by the government. They're terrifying. Why would anyone want that drug?

System 1 is more powerful than System 2. We are spell-bound by the story we see and feel. We're entranced by the music and images. We may hear the words, but we think the pictures.

That's why companies buy audiences: to gain direct access to their automatic, instinctive, bottom-up, emotional, irrational attention.

In the US television industry, the amount of money an advertiser pays for 30 seconds of attention has traditionally been based on two metrics:

How many eyeballs the ad is exposed to...which is to say...

ratings

Ratings...and what kind of people those eyeballs belong to:

ratings demographics Demographics.

Ratings count the number of people and the time they're exposed to an ad. Demographics segment the audience – by age, sex, geography, race and so on. This data has traditionally been collected by firms like Nielsen from...

surveys
panels
diaries
focus groups
people meters

...surveys, panels, diaries, test audiences and, people meters. The currency of advertising – the cost per thousand viewers – is determined by the demographic desirability of the audience.

18-to-49

And the most coveted of all demographic segments is aged 18-to-49.

Since the 1980s, based on weak evidence, this segment has been believed to possess the most disposable income, and to be the most open to new brands. The 18-to-49 demo is the most expensive to buy and the most profitable to sell.

But the explosion of digital technology has disrupted this system, in two ways.

competition

First: competition.

More content on more platforms means more competition for attention. That makes audiences smaller, harder to find, and more expensive to count accurately.

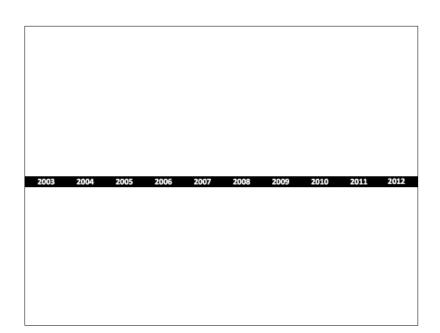
competition control

The second way technology has disrupted the business model is control.

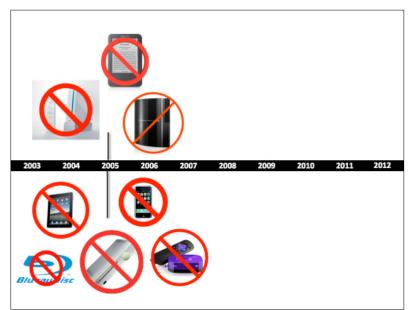
Today's audience has more autonomy – more control over what, where, when and how it consumes entertainment.

And because consumers can now also produce and distribute content, the idea of the audience has changed from passive to active.

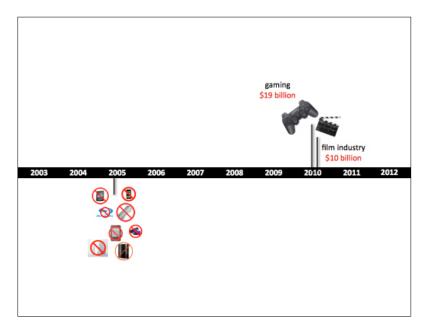
Let's look at each of these in turn.



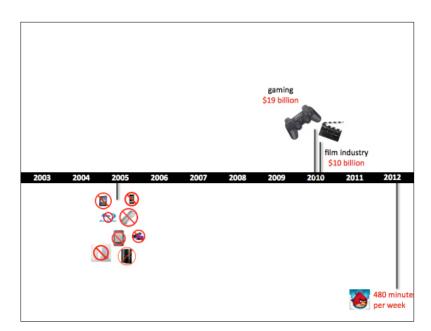
First, competition for audience attention.



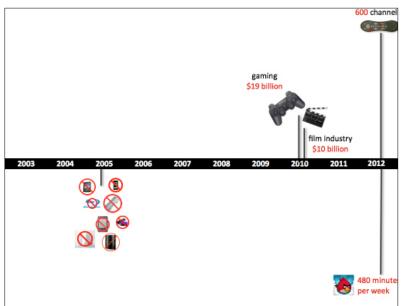
Seven years ago, there were no iPhones or Androids, no tablets, no e-readers, no Blu-Ray, no Xbox, no PlayStation, no Wii, no Roku.



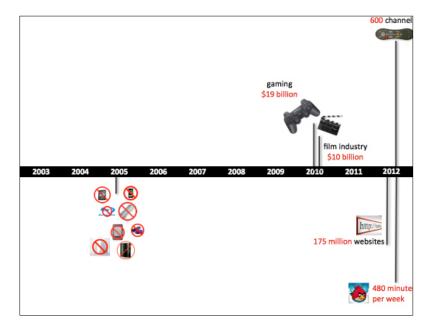
Until the 1970s, the video game industry didn't exist. By 2010, it had nearly \$19 billion in revenue, \$9 billion more than movies.



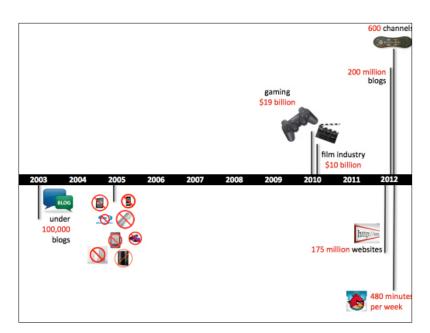
Today, people spend 8 hours per week playing video games.



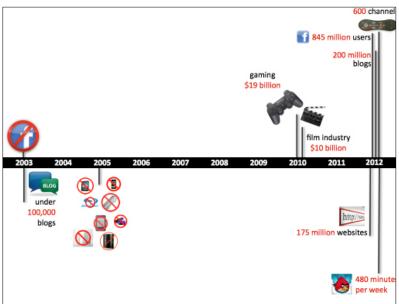
Until the 1980s, there were three major TV networks in the US. Today an American with cable or satellite TV has 600 channels to choose from.



The Internet also captures eyeballs. In 1996, there were 100,000 websites. Today, there are 175 million active sites.

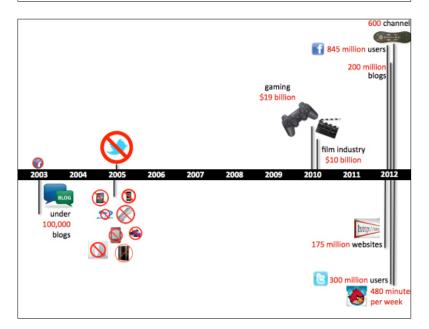


In 2003, there were under a hundred thousand blogs. By 2010, there were 200 million.



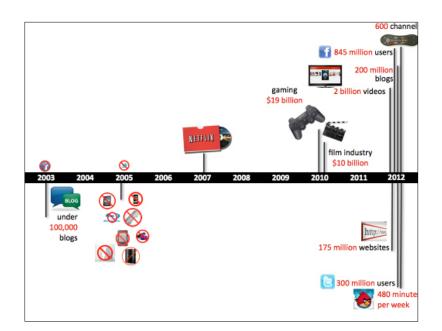
In 2003, there was no Facebook.

Today, it has 845 million users.



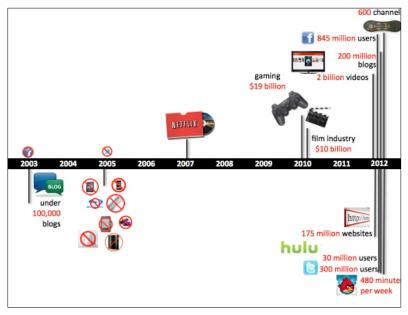
In 2005, there was no Twitter.

Today, it has 300 million users, posting over 200,000 Tweets per minute.

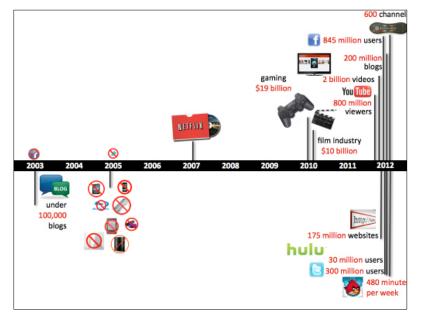


Five years ago, Netflix didn't stream movies online.

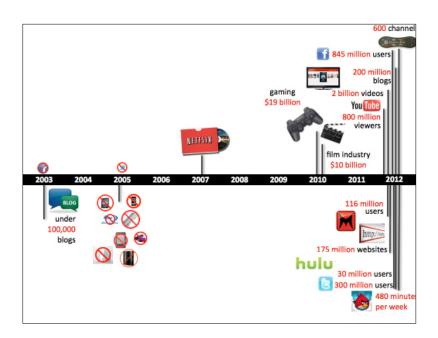
In the last quarter of 2011, 2 billion videos were streamed on Netflix.



Five years ago, Hulu Internet TV didn't exist. Today it has 30 million monthly users.



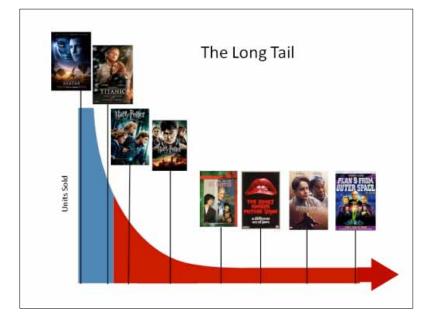
Five years ago, YouTube was in infancy. It now attracts 800 million viewers a month.



Machinima – a YouTube game channel that didn't exist 8 years ago – now attracts over 1 billion views per month from 116 million people.

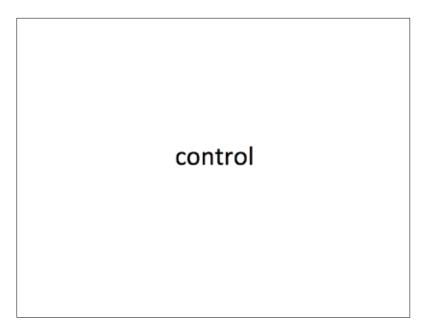
fragmentation

The consequence of all this competition increasing in the past decade has been the fragmentation of the mass audience into niche audiences...

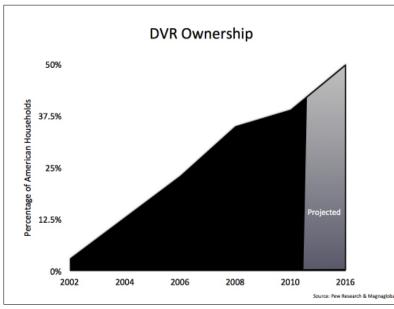


...the long tail phenomenon, as it has been named by Chris Anderson – big audiences for a few hit products at the head of the curve, and small audiences for many more products on the tail of the curve.

Technology has not only broken the audience into pieces. It has also given the audience extraordinary new power...



...to control its top-down attention – to control whether, when and how to consume media.



In the U.S., the penetration of the Digital Video Recorder - the DVR - is on a path to reach half of all households by 2016.

time-shifting ad-skipping

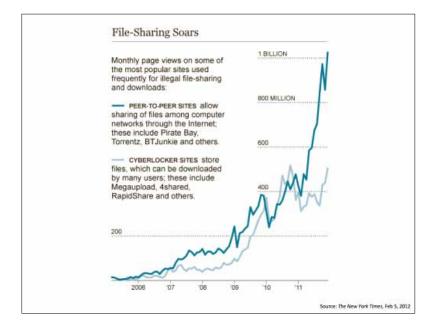
The DVR enables time-shifting – watching when you want, not when programmers want. The DVR also enables ad-skipping – fast-forwarding instead of watching them.

on-demand streaming

Cable, satellite and Internet video-on-demand and streaming have also put consumers in charge of scheduling.

place-shifting

Mobile technology – smartphones, iPods, tablets, laptops, netbooks – has enabled place-shifting, letting people consume content where they want.



Peer-to-peer technology has enabled file-sharing, both legal and illegal. People can get content not available in the libraries of distributors, and not at the price that distributors are charging or on the schedule they have planned.

UGC

User-generated content. Anyone with a laptop to create and edit content – and to take and remix content – and to upload and distribute content.

voting
commenting
liking
linking
ranking
reviewing
recommending
Tweeting
blogging
emailing
campaigning
fan sites

Active audiences interact with content by voting, commenting, liking, linking, ranking, reviewing, recommending, Tweeting, blogging, emailing feedback to writers about storylines, campaigning to influence producers and networks, creating and participating in fan sites.

technology has created new platforms

new content

new competition

new autonomous audience

So technology has created new platforms, new content, new competition and a new autonomous audience able to contribute to content and control its consumption.

disrupted audience metrics

And this has disrupted the audience metrics that advertising is based on.

When there are more places for people to pay attention, it becomes harder to count them accurately without spending more money to increase sample size.



But as Professor Philip Napoli points out in his book, *Audience Evolution*, the same technology that has increased audience control of content has created a new source of data for content providers about their relationship with content. As people control content, as they interact with it, they create...

return path data

...return path data – rich new streams of new data about who they are; what they think of the content; and how it affects their behavior.

<u>engagement</u>

awareness and intention

appreciation

behavior



The metrics of return path data provide a new currency for valuing audiences: engagement. There are scores of definitions of engagement, and metrics for it, and companies measuring it. But they have a few things in common.

They measure potential demand: awareness of content – buzz, chatter, "word of mouse" – and intention to consume it.

They measure appreciation of content – sentiment, emotional response, evaluation.

And they measure behavior – what they did with the content, including the most important behavior: spending money.

What are the sources of this return path data?

DVRs, and cable and satellite set-top boxes, provide a second-by-second record of what people view, pause, timeshift, rewatch, and fast-forward.



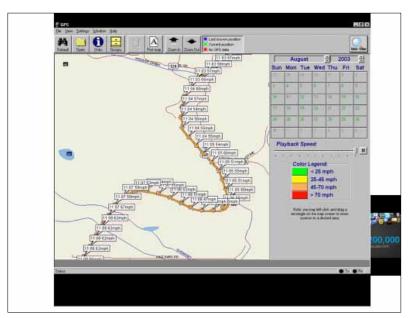
Data can be collected from DVR menu interfaces, online program guides, and search engines.



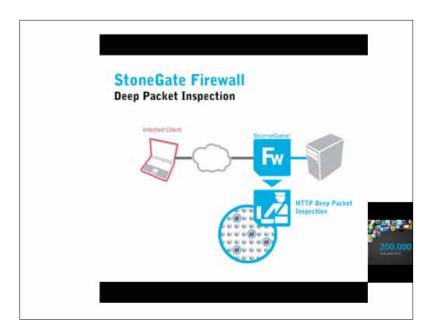
From cookies.



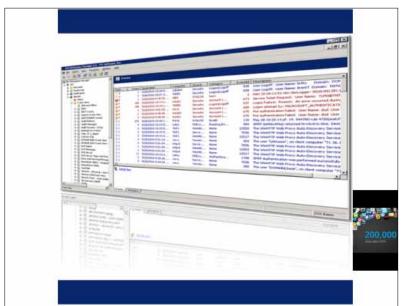
From apps.



From GPS.



From deep packet inspection.



From server logs.



From sentiment analysis of Facebook, Twitter, blogs, forums, discussion rooms, and fan sites.



From liking, linking, sharing, rating, tagging, inviting, commenting, recommending.



From voting, emailing and texting and instant-messaging shows.



From user production of content, like remixes.



From clicking on ads, requesting more information, winning virtual badges, taking part in contests and games.



From e-commerce, coupons, social-network Groupons, and consumer loyalty cards at retail points of purchase.

addressable advertising

As return path data has been harvested, two things have become possible.

One is addressable advertising – or behavioral advertising: targeting ads to the individual consumers most likely to be receptive to them and engaged by them.

Of course there is a difference between being engaged by ad, and acting on it, which takes us to the second thing return path data makes possible: correlating advertising and sales.



"There is no link, none."

"Reliance on the 18-to-49 demographic is hazardous to all media and marketers."

David Poltrack

"Ratings demographics by age and sex had a... 0.12 correlation with actual sales"

Nielsen executive (2011)

Source: Advertising Age, March 23, 2011

E-Poll Market Research

Anticipate Behavior Trends Opportunities

Home ModeSYNC* Products Passarch Solutions About Us Consist Us

MediaSYNC*

E-Poll sales of Sophisticized research products, and easy-to-use nitine system, called MediaSYNC, give won the mast back caser the power in access septembricated research with the click of a human. These research products employ slingle, vel powerful unine interfaces which allow subscribers to access a disabase of militars of sulvey responses from E-Poll's propretay marked consumer panel.

Trands

Each research product provides soniversent boals for sorting, comparison, brending, and ranking lists, as well as easy reporting and experting of data to other programs in addition to measurements of annexes, algorith product provides and E-Poll's unions "hower factors", noch product appared comments describ man survey responders.

For more information about specific research products, click on the links below.

This is David Poltrack, the head of research for the CBS network. Last spring, in New York, at the annual meeting of the Advertising Research Foundation, he announced, based on new research using return path data, that the currency of advertising – demographics-based ratings – was dead.

"There is no link, none," he said, between the demographics of an ad campaign, and the sales generated by that campaign. "Reliance on the 18-to-49 demographic is hazardous to all media and marketers."

A Nielsen executive at the same event said that "ratings demographics by age and sex had a...0.12 correlation with actual sales produced by exposure to ads, where 1.0 is complete correlation, and 0 signals no relationship whatsoever."

Zero-point-one-two! You'd do better throwing dice than using Nielsens.

Nielsen, of course, is racing to create new products based on new return path data to measure engagement, not just exposure. So are plenty of other firms.

Here are some of the companies mining this data and selling new metrics:

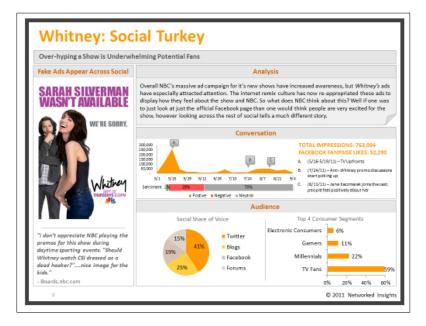
E-Poll uses an online panel to measure viewer intention, awareness and attitudes about 600 programs, as well as about celebrities, brands and music.



Rentrak combines data on second-by-second exposure to real-time viewing, DVR, video-on-demand, broadband and mobile.



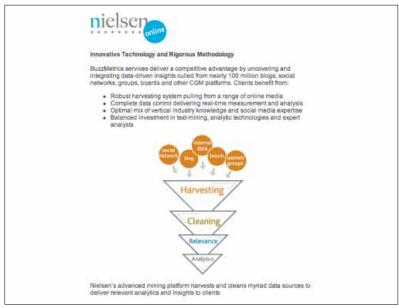
Nielsen's VideoCensus correlates Nielsen panel data with server-based streaming metrics, including cached, P2P, and DRM content.



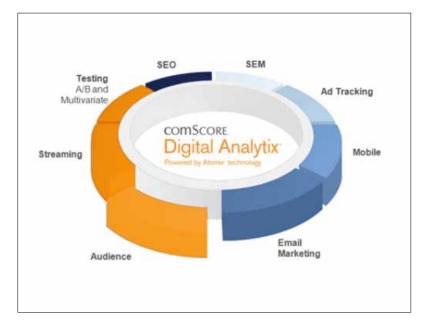
Networked Insights maps real-time comments on social networks, blogs and forums onto programming aired at that moment.



Bluefin Labs, a spinoff of the MIT Media Lab, also correlates programming with social media, using a huge data base of content and screenscraping.



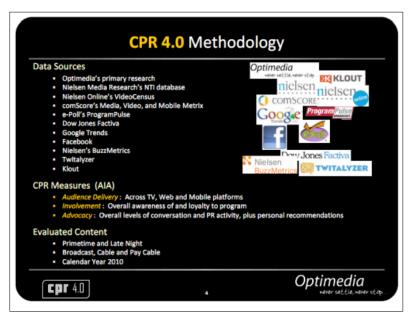
NielsenOnline Buzz Metrics performs sentiment analysis on 100 million blogs, user groups, boards, and social network sites.



Digital Analytix – a comScore product - analyzes Twitter, YouTube, mobile browsing, clicks, streaming and apps.



Social TV sites like GetGlue, Miso, Tunerfish and Screen-Tribe create online viewing communities whose messages are aggregated and analyzed.

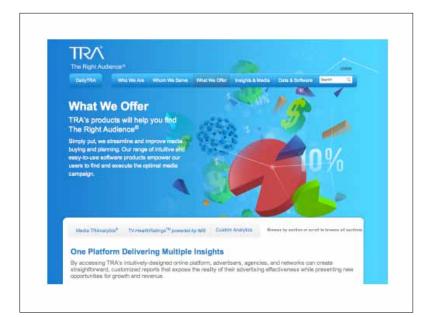


Optimedia – owned by Publicis – sells Content Power Ratings, a proprietary "secret sauce" combining metrics from 17 data streams, including Twitalyzer, Klout, BuzzMetrics, Facebook and Nielsen VideoCensus, to measure exposure, awareness, loyalty and advocacy.

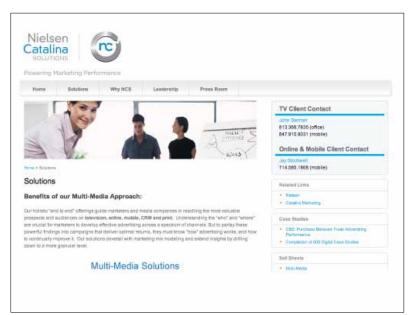
ROI metric

The Holy Grail in this industry is an ROI – return-on-investment – metric, a single-source panel that correlates marketing with purchasing.

Two examples of firms chasing that:



TRA – The Right Audience – takes second-by-second DVR and set-top box data from 3 million TV sets, and correlates it with supermarket shopping data from 60 million consumers swiping loyalty cards at cash registers.



Nielsen Catalina Solutions is a joint venture between Nielsen and Catalina's 60 million households of frequent shopper data.

Where is all this going?

Where is all this going?



"The future is already here. It's just not evenly distributed yet."

William Gibson

This is the science fiction writer William Gibson, who coined the term "cyberspace." In 2003, he said that, "The future is already here. It's just not evenly distributed yet."

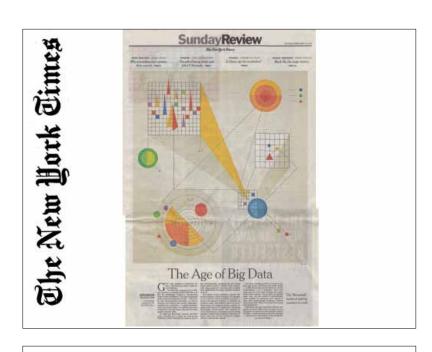
I think there are two futures for the attention industry – each in tension with the other, and both already here.

One is Big Data.

Big Data

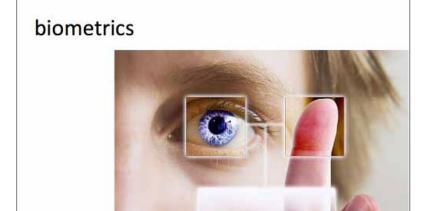
The other is Big Democracy.

Big Democracy



We live, says the *New York Times*, in "The Age of Big Data." The direction we are heading is more return path data...more engaging content...better engagement metrics...better models of the audience...more addressable advertising...more ROI for advertisers...more revenue for media.

I'll give you four examples.



First, more return path data from biometrics.

Today, biometrics is used only in research settings.



Companies like Affectiva use what they call "Affdex" for faces and eye movement, and the "Q sensor 2.0" for skin conductivity.



Neurofocus uses a dry wireless electro-encephalogram to measure brain waves of viewers during TV programming and advertising.



It's easy to imagine that soon – via cameras and touch screens that are already ubiquitous – biometric return path data will be universally available. You can imagine people volunteering it gladly, in exchange for coupons, or free music and videos.

content farms

Second example: More engaging content grown on content farms.

Content farms scrape the Internet to generate keywords that their algorithm predicts will get quantifiable search engine traffic and advertising revenue.

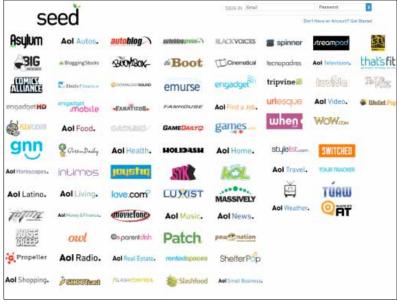
Based on that projected ROI, they go to freelance contributors, and they order up content that uses those keywords in texts and voice.

Typically, the articles and videos are very short – 200 to 300 words, two to three minutes long, and the creators get as little as 10 to 20 dollars. They're posted on sites owned or licensed by the content farms, along with the advertising geared to the content.

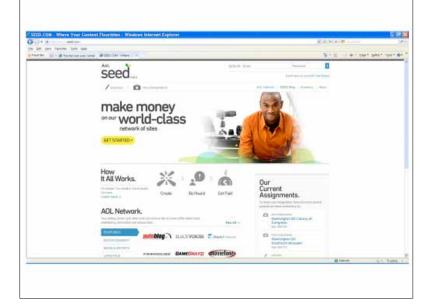


The big players include:

Demand Media – which works with 7 thousand contributors, who produce 5 thousand articles and videos a day, which get 61 million unique visits a month.



Seed.com - owned by AOL...



...which posts content on more than 80 sites in the AOL network.



Yahoo! Voices has over 600 thousand contributors, who get bonuses based on the traffic their work gets. What are their stories about?



Articles: Tips for Buying a Touchscreen Monitor. How My Backyard is Saving Me Money. If Justin Bieber was a Shakespeare Fan.



Videos: Cooking for Dads. Stay Warm in Alaska. 8 Steps to Powerful Blessings.

It's easy to imagine what's next: a wider range of genres – like comedy acts, mini-dramas, animation – with content generated on-demand; financed up front by advertisers; and produced not only by amateurs and freelancers, but also by networks and studios.

analytics as entertainment

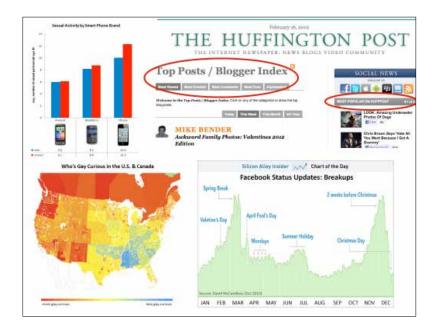
Third example: analytics as entertainment.



This is David Verkin, the CEO of a firm called Canoe Ventures, a company that adds games, contests and polls to ads to make them more engaging.

He noticed that when they reported the results of the polls to the audience, their engagement increased. We are hungry for data about ourselves. As he put it: "Data is the new creative."

We love it when sites tell us what their analytics tell them about us.



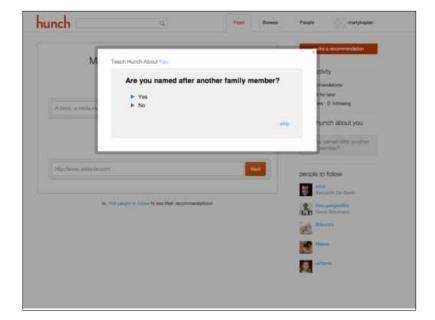
We want to know what's the most popular, the most emailed, the most commented on. OK Cupid, a dating site, told its users what it had learned from them: people with iPhones had most sex on a first date; people with Androids had least.

The more surveillance we permit, the more sticky content we enable.

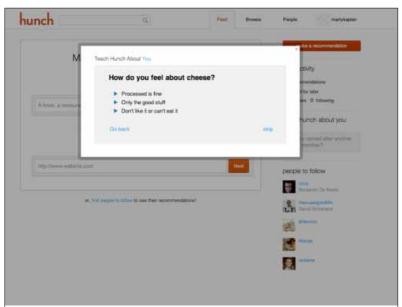
algorithms as entertainment

Fourth example: algorithms as entertainment.

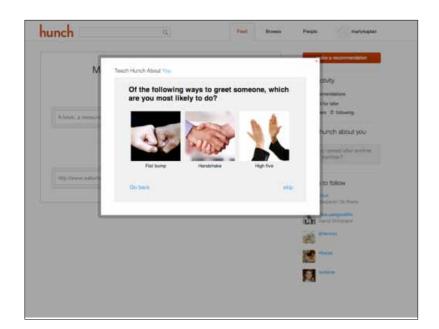
There's a website called Hunch.com. You go there to voluntarily give data about yourself. Recently I did this for the first time. Here are some of the first questions I was asked:



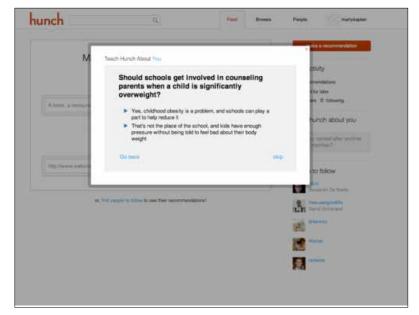
Are you named after another family member?



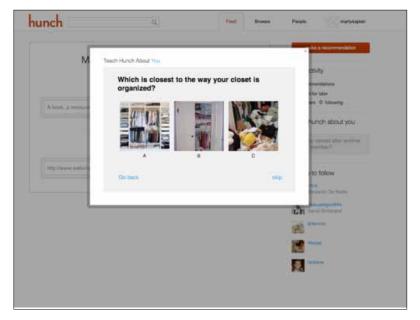
How do you feel about cheese?



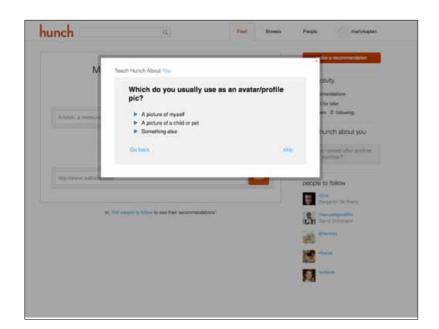
How do you greet someone?



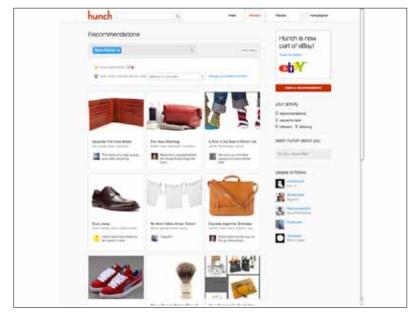
Should schools counsel parents when their child is significantly overweight?



What does your closet look like?

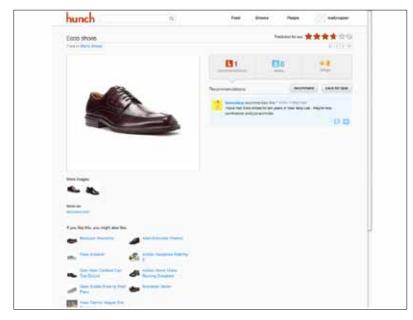


What do you use as an avatar or profile picture?

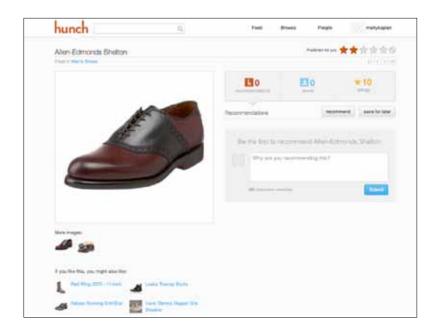


And then you click a button – and based on your answers, and everyone else's answers in their data base, they recommend products you might want to buy.

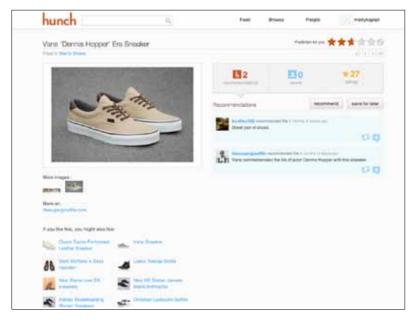
Well, my eye was caught by a pair of shoes that I liked.



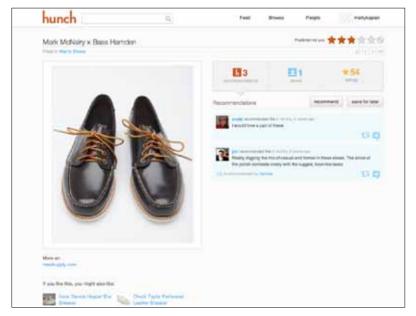
I clicked on it, and then I saw: If you like this, you might also like these. I did like it.



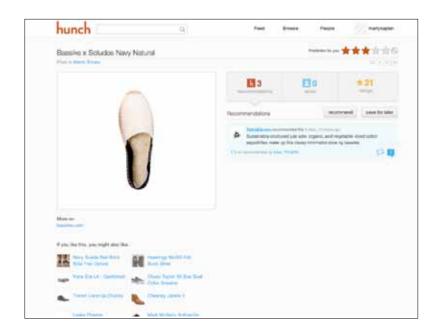
So I clicked on another pair...



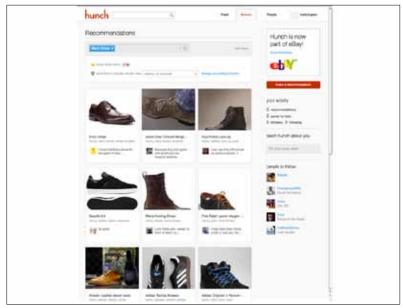
and another...



and another...

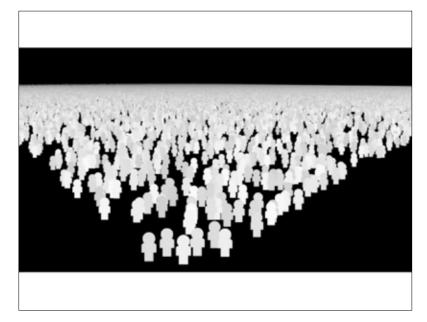


and another...



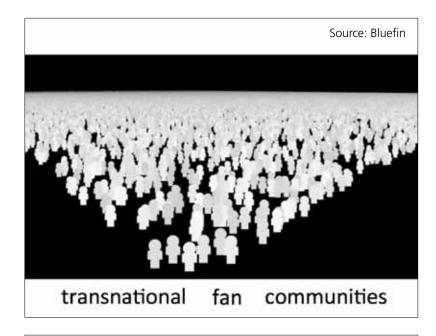
...and I liked them all!

And without realizing it, an hour had gone by. I was completely entertained. And I bought these shoes.



I believe Big Data will lead us to understand that the mass audience is not dead – it is networked, dynamic and global.

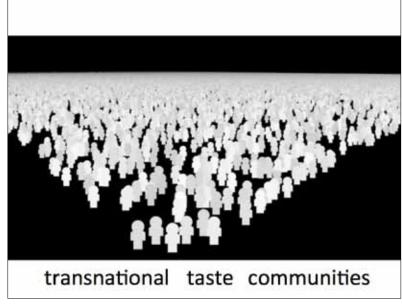
Mass audiences are big, but temporary. They are constantly forming and reforming. People belong to an unstable set of virtual tribes built around entertainment – we belong to...



... transnational fan communities.

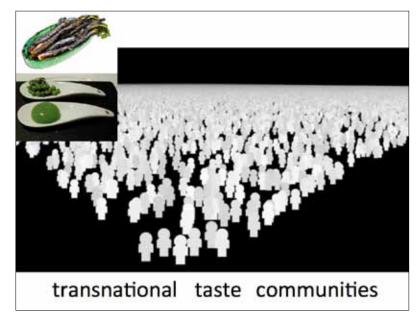
Our tastes in entertainment, our engagement with media, are markers of our identity.

But so are our other tastes. We are also fans of things, experiences, brands, fantasies, beliefs. We belong to...



...transnational taste communities.

Our preferences in:



...food



...news



...fashion



...cars



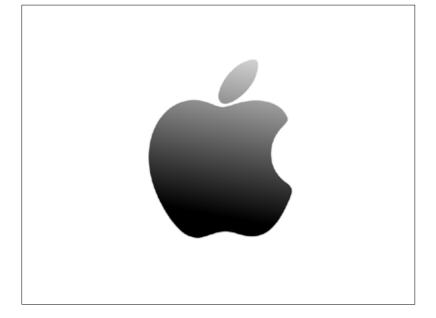
...sports



...travel – and every other marker of cultural taste correlate with our taste in TV, movies and music. And network analysis of Big Data will reveal those correlations.

Taste community analytics will make current analytics seem primitive. They will be dynamic and predictive. They will drive addressable advertising. They will change as you change, moving as you move through the news cycle and the life cycle. They will know what you like, and they will anticipate what you want.

All in all, this is a happy future for media. But while some welcome the age of Big Data...

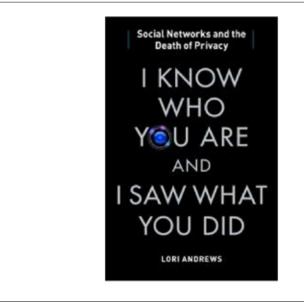


...the way they welcome each new product from Apple: when others see how Big Data is already being used, and may be used in the future...



...what they see is a nightmare.

In the US, this anxiety about Big Data – a mixture of fear and anger – has spiked upward since the start of 2012.



In January, a book was published called I know who you are and I saw what you did.

Its title captured the mood. And within days, because of events in the news, this theme – the death of privacy, in the words of its subtitle – were everywhere.



First, Google announced that starting March 1st, it would aggregate the data it had about users across 60 Google services, including Gmail, search, Android, Google+, YouTube, Gmaps, and Calendar. There is no opting out.

Almost immediately, there was a backlash in Congress. Which got worse when a Stanford graduate student discovered that Google had defeated a privacy feature on Apple's Safari browser, which allowed advertising sites other than Google to put cookies on their iPhones without asking permission.



Then a software developer in Singapore named Arun Thampi discovered that when he installed an iPhone social media app with 2 million users called Path, it uploaded his entire address book to its servers, without his permission.

Within hours, the news was all over the Internet.

At first, Dave Morin, the founder of Path, denied it.



Then he said that uploading your address book without asking was an "industry best practice."

Then he apologized and said they'd delete all address book data.

Then it turned out that Path wasn't alone.



Twitter users were surprised to hear that when they clicked on "Find Friends," it meant that they were uploading their address book to Twitter, which was keeping it for 18 months.

That became front page news.



Then it turned out that a number of other popular Apple apps, like Yelp and Gowalla, were also sweeping up user data.

Again, Congress pushed back.



Apple admitted that their app policy requiring user permission to upload contact information was being violated, and said they would enforce it better.



But then it turned out that app developers could upload all your photos without permission, either.

Opinion: The Death of the



Since then the news media have been in an uproar about identity and privacy and terms-of-service agreements.

Instead of articles about how great it was that exposure to advertising could be correlated with loyalty card data about consumer purchasing...



...there was this: "Hey! You're Having a Baby!

It's the story of a statistician at a big American retailer, who was asked by the marketing department, "If we wanted to figure out if a customer is pregnant, even if she didn't want us to, how can you do that?"

The answer is yes – and it's there's nothing to prevent them from selling their list of who's pregnant to anyone.

But the debate has gone beyond privacy, to the question of ownership: Who has the right to monetize my data?



This was brought into focus by Facebook's initial public offering of stock – raising \$10 billion, and a valuation of \$100 billion.

That provoked the question, Why does Facebook get to use my story, my friends, my content, to make money?

The Facebook business model – Facebook is free, in exchange for mining your data to sell addressable advertising – was suddenly in question. Users were asking, Why don't I own my own clickstream? We're giving Facebook personal data worth billions of dollars. Where's our cut?

In the U.S., there are no federal laws spelling out the control and the use of the online data trail of people's personal identity.



But here in Europe, as you know, the European Commission is considering a law that would force Internet companies to disclose what data they're collecting, and what data they're selling;

and to give customers the right to opt out; the right to transport their data from one site to another; and the right to be forgotten – to delete their accounts and their data.

attention rights

Now more Americans are asking: Why don't we have attention rights?

All this has brought new energy to a movement to empower people to own their data and control its privacy – a movement to change the focus from...

Big Data

...Big Data

My Data

...to My Data.



You can see this energy in government, in nonprofits, and in the private sector.



Two weeks ago, the White House issued what it called an Online Consumer Privacy Bill of Rights. It's voluntary, but within 24 hours, AOL, Google, Microsoft and Yahoo signed up.

On the same day, the attorney general of California announced that California's Online Privacy Protection Act – the strongest in the country – will now apply to mobile apps, which had no privacy protections before.

Google, Microsoft, Amazon, Hewlett-Packard and Research-in-Motion immediately signed on.



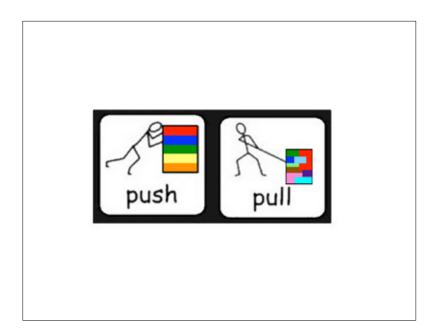
Many nonprofit groups have been trying to build this movement for a while now, including ID cubed, Creative Commons, Identity Commons, Open Sensing Framework, OpenAuth, OpenID, Open Identity Exchange, Identity Commons, the Locker Project.

Big Data

What they have in common is the use of technology to create some kind of data locker – this is ID cubed's platform – a vault that's secured and protected by you, and that would hold all your personal information in one location.

Big Democracy

I've focused on privacy and ownership as the focus of resistance to Big Data, but it's the larger context that I want to end on – the tension between Big Data and Big Democracy.



I spoke earlier about content farms. They're part of a pattern in the U.S. news industry, a shift in editorial power from Push journalism – which publishes information that editors think people need to know, in order to be well-informed, responsible citizens – a shift from Push, to Pull journalism – which publishes what people want to know, stories with big demand, but not necessarily big civic content.

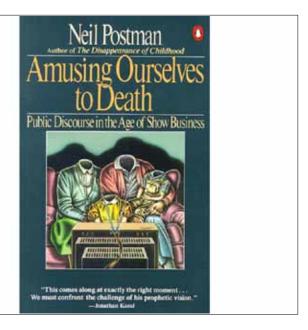


A few weeks ago, this was the cover of *Time* magazine's European edition; this was the cover of its Asian edition; this was the cover of its South Pacific edition...



...and this was the cover of its US edition.

I have no doubt that in the U.S., there was greater demand for a story about animal friendships than for a story about the crisis in Europe.



But the risk of a demand-driven, entertainment-driven society is — as the title of Neil Postman's classic study put it — that we are *Amusing Ourselves to Death*.

In an age of show business, everything wants to be entertaining. In an age of information overload, every domain – not just media – competes to be noticed.



News, politics, commerce, religion, education, architecture, fashion, the arts: all culture is shaped to a surprising degree by the battle to capture our scarce attention.

In this battle, there are Goliaths, and there are Davids. Over the past year, around the world, nowhere has this been more apparent than in the public sphere.

To occupy attention is to set the public agenda.

attention is monetized

Attention is not only there to be monetized.

Attention is there to be mobilized.

attention is mobilized



From the Arab spring to Russia, from 15-M to Occupy Wall Street, this mobilization of attention is resetting the public agenda.

Plato would denounce this challenge to order. The poetry of the streets, he would say, is too dangerous a power.

You may agree or disagree with the message of these movements. But there is no denying that the pictures they are making and the stories they are telling have captured the attention of the world.

And speaking of attention, thank you very much for yours.

Thanks to Adam Amel Rogers, Scott McGibbon and Veronica Jauriqui for the many hats they wore.









From Attention to Engagement: The Transformation of the Content Industry is licensed under the Creative Commons Share Alike, Attribution License.