

DIGITAL HOLLOWS: INFORMATION ISOLATION AND THE MYTH OF POST-PARTISANSHIP

BY PATRICK ROSS

INTRODUCTION

In March of 2008, Americans were still getting to know Barack Obama. The freshman senator from Illinois with the uncommon name had shocked the world with a caucus victory in Iowa, and a string of victories following that caucus suggested he had a real shot at securing the Democratic nomination for president of the United States.

A poll taken that month found that about one in ten Americans mistakenly believed Obama was a Muslim. The candidate himself had been batting down rumors throughout the campaign – in Iowa several months earlier he had said “If I were a Muslim, I would let you know” – but it seemed 14% of Republicans, 10% of Democrats and 8% of Independents believed the false rumor.

Surprisingly, the study was conducted in the wake of explosive controversy surrounding Obama’s Baptist minister, the man who had presided over his wedding, Jeremiah Wright. It would seem reasonable to ask, if Obama really were a Muslim, why had he spent so many years in the pews of a Baptist church?

Apparently a lot of folks didn’t ask themselves that question. In July of 2008, another poll showed the percentage of mistaken Americans believing

Obama was Muslim had risen slightly to about 12%, with an even spread for Republicans (12%), Democrats (12%) and independents (11%).

Attempts by the campaign and the media to dispel the myth clearly were not succeeding. But in fairness, many voters were not yet seriously focused on the presidential campaign. That interest grew far more intense after the Democratic and Republican conventions in late summer.

In November 2008 Obama won a decisive victory in the general election, becoming the first African American to be elected president. It was arguably one of the most closely watched elections in modern history.

A month later the latest poll showed a 7 percentage-point increase since July in those believing Obama was Muslim, an increase that occurred during the time when more people than ever before were focused on the campaign. A full 19% of Americans – essentially one in five – believed the myth.

This time, the fairly even split among parties was gone. Nearly three times as many Republicans as Democrats believed Obama to be Muslim.

What The F#@?

This story cannot be written off as some odd irregularity stemming from the unusual circumstances of an African American with a Kenyan name running as a serious candidate for president. No, this is but the latest example of where we Americans find ourselves in the digital age. We, through actions we take ourselves, increase our susceptibility to misinformation and bias.

The growth of mistaken voters believing in the falsehood of Obama's religious preference follows trends long identified by social scientists. It began with the steps we take, using modern filtering technologies, to manage the overwhelming sea of information to create our own personal stream of "knowledge."

It then is compounded by a phenomenon called *group polarization*, where biases become reinforced when we are surrounded by trusted voices arguing one side but few voices arguing the other. This is a natural result of our own news filtering.

The problem then spreads due to what is called a *social cascade*. When we receive a piece of information – say, that Obama is a Muslim – if we don't have evidence to counter that, we are more likely to believe the messenger. Now the two of us – the messenger and me – pass it on to another, who has even more reason to believe it.

So those more suspicious of Obama – that large group of Republicans that adopted the myth – receive false information through their filter. The information reinforces their own suspicion, hardening their distrust of Obama. That spurs them to forward the information to others in their reinforcing network, and the social cascade spreads.

But that cascade could never spread, the group polarization could never occur, if the original recipient of the information had not been filtering out other voices.

The “Obama is a Muslim” myth was beaten down repeatedly by the mass media over the course of the campaign. Some in the media were reluctant to give it any airtime for fear of replicating the myth, but its persistence in polls led reporters and editors to return to the theme time and again.

The mainstream media is reviled and feared, but the 2008 campaign showed it is increasingly becoming irrelevant. We are so empowered by technology now that nearly one in five can completely tune out and discredit any message from the mainstream media on a critical issue and instead accept arguments rooted in an email that has been forwarded numerous times and is of anonymous – and dubious – origin.

This problem is not a Republican or Democratic one. Plenty of false information is distributed among liberal and Democratic circles. Group polarization and social cascades are all too common there as well.

Pundits say our policy debates have never been more polarized, and we seem to agree with them.

Research at the beginning of his Administration showed that President Obama had the widest partisan gap in approval rating of any president in modern times – 88 percent of Democrats approved of him but only 27 percent of Republicans felt the same way. And in the first three months of 2009 the number of Americans feeling Republicans and Democrats are working together more than in the past dropped in half.

The rush of post-partisan optimism that hit the country after Obama’s election was once again replaced by cynicism. This is to be expected when many

people feel post-partisanship is when the other side comes around to your point of view.

And where is the blame for this divide to be laid? On all of us.

The Public Square

While it was not always this way, for as long as any of us can remember, our political discourse occurred in a “public square” created and delivered by mass media.

Since the dawn of the mass media age a century ago, we have received news and information from various sources, such as newspapers, magazines, radio and television. These sources had in common an institutional core of accuracy and fact-checking, and shared a commercial incentive to at least approach a semblance of balance. When you are targeting the largest possible audience, the last thing you want to do is alienate entire segments of the population.

But our new “information” age is different. Yes, we have access to more information than ever before. Run any common online search and more than one million results will pop up instantly. Just about any topic you can think of – from cold fusion to the most recent episode of “Family Guy” – is documented online in excruciating detail.

It seems like everything is on the Web now – there’s a street vendor who sells burritos near my office in downtown Washington, D.C., who uses a web site

to let customers know when his cart will be there. People are lined up at his usual spot before he arrives. Of course, this entrepreneur is now using dated technology, as taco trucks have now embraced Twitter.

This is all good, especially for taco and burrito lovers like me. But as a Nobel prize-winning economist once said, “a wealth of information creates a poverty of attention.” Herbert Simon forced economists to think, by pointing out that we don’t seek to maximize the outcome of any given situation. Why? Because we simply can’t process all of the information involved.

We seek “satisficing,” a combination of satisfy and suffice. This essential compromise is struck because of the cognitive limits of the human brain.

Think Simon was on to something? He was. According to a recent study, the amount of information added annually to the digital universe will increase more than ten-fold from 2007 to 2011, to a total of about 1,061 exabytes.

Okay, what’s an exabyte?

An exabyte is 1,000,000,000,000,000 bytes or 10^{18} bytes. That means in 2010, bytes the equivalent of 7,851,400 Library of Congress book collections will enter our digital world. And we are supposed to find the particular bytes of value in that tsunami how?

We have shifted from a lean-back approach to information – newspaper on our doorstep, nightly news packaged for us on our TV – to a lean-forward approach – seeking out news web sites and blogs.

It’s unnatural, really, to expect us to remain for too long in a lean-forward position. We will seek out tools to help guide us into a more natural lean-back

state. We'll use browser bookmarks, RSS feeds, online news aggregators, link-collecting blogs, anything that will help us sort this overwhelming onslaught of information.

In the mass media age, there were editors who acted as our filters. Now we have that responsibility ourselves. And it is no surprise that we tend to allow through the filter not only information we think will be most relevant to us, but also information that most fits our world view.

Even when that information is false.

The Daily Me

A scientific visionary, Massachusetts Institute of Technology Professor Nicholas Negroponte, predicted technology would lead us to self-edit a news feed he called "The Daily Me." He even ran experiments demonstrating how it would work, amazing research considering this was about fifteen years ago, when web browsers were just supplanting Usenet lists and FTP file-transfer services (in other words, online services most consumers had never heard of let alone used).

But Negroponte, reasonably enough, failed to predict just how quickly and expansively his "Daily Me" would spread. He also anticipated the stream of information would be produced by mass media, as that is where information still came from in 1995. Mass media remains part of our daily feeds, but it is

increasingly likely to be biased due to modern commercial pressures to offer niche programming.

And of course, an increasing amount of things we read are from amateur sources, that are not subject to fact-checking and fears of libel suits, as are those in mass media. How can you trust the validity of that “tweet” you just received on Twitter if you can’t even be positive who is behind that Twitter account?

Such filtering limits our vision of the world. We lose the common reference points of the public square, where we share common experiences. We lose the ability for serendipity, where reading an article of interest in a newspaper causes us to notice one we wouldn’t have sought but is of interest. Hyperlinks should provide some serendipity, but they are chosen and included by the very sources of bias being read. They lead to reinforcements of bias. These serendipitous experiences are what make us well-rounded citizens.

The classical Greek poet Archilochus wrote “The fox knows many things, but the hedgehog knows one thing.” We all need to be foxes, but self-filtering turns us into hedgehogs. Hedgehogs do not make constructive citizens.

The Internet is wonderful in that it allows us access to more information than ever before on the narrow confines of interests we possess that aren’t sufficiently addressed by mass media. But the Internet also enables us to bury ourselves in those channels, and that isolation is not good for us or for democracy.

Digital Utopians

This work should not be read as an anti-Internet screed, the rantings of an isolated Luddite. I can rant with the best of them, but I concede the Internet age is a wonder, particularly in point-to-point connections, from catching up with a high school friend on Facebook to selling your childhood comic books on eBay, from finding a job on Monster.com to finding a date on Match.com, from finding a contractor on Angie's List to finding a couch on Craig's List.

It is also empowering from a cultural standpoint. As a fan of gospel blues, it is far easier today for me to track down classic recordings to enjoy anywhere I'd like.

Of course, for the songwriters and recording artists behind those works, it's also an opportunity for them to be deprived of earned income if, like the vast majority of Internet consumers of creative works, I download the songs from infringing sites. But to the extent the long tail that *Wired* editor Chris Anderson describes – a long list of obscure creative works available online -- can actually be monetized by artists, then both consumers and artists win in the digital age.

These successes – stemming from consumer empowerment -- make it very difficult to raise concerns regarding the Internet. Who, after all, once exposed to the myriad choices available with broadband, would voluntarily surrender the Internet and go back to a life without it? Very few, I would argue.

So it is important here, as I raise concerns about the digital age's impact on democracy, that I begin by acknowledging the consumer empowerment the Internet brings.

This consumer empowerment is a source of celebration among many, in particular the digital utopians so common in Silicon Valley. The argument here is that the Internet is a democratizing force. To them, mass media held a monopoly on information. Other voices were suppressed. The Internet frees all of us to be our own sources of news and debate.

The Internet, therefore, will actually bring true democracy to America.

Will it?

These digital utopians have their hearts in the right place. They see the best in technology, and they see the best in us. They trust, but that trust is misplaced.

The vision of digital utopians seems to be one of a direct democracy, not a representative one. In our democracy, we elect representatives and if we don't like how they're doing, we vote them out. A similar model occurred in mass media. While unelected, various media channels provided us news and information. If we didn't like one source, we could favor another. We don't have infinite choice in politicians, and we have never had infinite choice in mass media outlets. They are, after all, *mass media*.

In a direct democracy, everyone has a voice. This is the "wisdom of the crowds" we so often hear about, the "Army of Davids" that Glenn Reynolds praised in a book of the same name. It is the philosophy behind the unpaid worker bees of Wikipedia and YouTube, and the growing industry that is open-source software.

But political discourse is not software. With hundreds of millions of Americans vocalizing on the same platform, some will be heard more than others. Typically, the ones who shout the loudest.

But there is a bigger problem than the shouting contest that will inevitably ensue in this form of direct democracy. It is the one of trust, the trust digital utopians share. I suspect many readers, when they see the phrase *direct democracy*, will think of a New England town hall meeting, where the citizenry takes turns standing and speaking. Norman Rockwell, the quintessential American painter, created an iconic painting of just that moment. It is romantic.

It also doesn't scale.

Noted scientist Jared Diamond, through decades of study of cultures around the world, has found that direct democracy only works when the population is so small that everyone knows everyone else and is dependent for survival on everyone else. If someone games the system, he or she will be found out, shunned, and left without a support system. That could be fatal.

On the Internet, anonymity is celebrated as a form of free speech, and no one is dependent on anyone else because of extreme individual empowerment. Thus, we are invited daily to engage in an exclusive funds transfer with a mysterious Nigerian, and that fifteen-year-old girl your daughter just befriended on MySpace might in fact be a 46-year-old male sexual predator.

Finding more ways to express ourselves? Good. Breaking down trust and fact-verification systems? Bad.

Information Isolation

We have all heard of the Hatfields and McCoys. They were two extended families that lived – and feuded -- in an Appalachian hollow (pronounced “holler” in that region). As Malcolm Gladwell noted in *Outliers*, those two clans were but one example of the family wars that erupted in those 19th Century isolated stretches of forgotten real estate. Narrow vision produces narrow action.

Hollows are found in isolated valleys, cut off from the larger society. Knowledge becomes spotty, facts become unclear without outside checks, and petty disputes erupt without larger perspectives to keep them in check.

Sociologists have conducted significant research on these hollows, but they are not really that unusual historically speaking. Before the 20th Century, most residents of this planet never ventured more than a few miles from their place of birth in their entire lifetimes, and that remains true today for many, even in developed countries.

But mass media – radio, TV, modern publishing houses and newspapers – brought the world to even the non-mobile. The global village never truly came to be, at least not in the most optimistic sense of the phrase, but we in the United States were dramatically closer to that reality in the broadcast era than we had ever been in the past.

The advances of the Internet and digital technologies have eroded the business models behind mass media. Layoffs, bankruptcies and a commercial need to pursue niche audiences with their preference for bias – conservative Fox

News begets liberal MSNBC – has eroded the trust we once placed in these institutions.

But they are still held accountable by libel and slander laws, and other legal threats. That is generally not true for your average blogger, and definitely not applicable for the author of anonymous chain emails.

Connections to others generally are good. And now, with the Internet, we have even more global connections than ever before. Yet despite a near-infinite network of connectivity, we find ourselves returning to figurative hollows, of our own creation.

Digital hollows.

Unlike those born into Appalachian hollows, we create our own isolation. We filter out what doesn't fit our worldview, and what isn't immediately central to our issues. We increasingly welcome those with like minds into our hollows and exclude those who think differently, and thus reinforce our isolation from greater society. Our trust filters, like original hollows dwellers, are not always finely attuned to what should be trusted and what should be adopted.

There is an important lesson here. The digital age is not introducing a radical and new way of life. The rise of mass media did that in the early 1900s.

The mass media world is all we knew, so this digital world seems brave and new, even though it is in fact a return to information norms very familiar to human populations across millennia.

This modern-day information isolation is harmful to us individually, but is detrimental in a democracy based on constrictive dialogue and compromise. As

indicated earlier, it seems many of us feel Washington has never been more divided.

But such polarization is not new. It is new in our lifetimes, but was common before mass media. Consider these incidents among members of Congress in the first century of our Congress: a House member beating another House member bloody behind the Speaker's chair; four different assaults occurring on the House and Senate floors involving canes (and once a fire tong), with one assailant spared from being shot in retaliation because of a jammed pistol, and the cane beating suffered by Senator Charles Sumner keeping him away from his duties for three years; and two pistol duels involving House members, with each duel resulting in one killing the other.

Needless to say, the watchful eye of mass media – the era of Walter Cronkite and C-SPAN -- did much to discourage extreme manifestations of extreme political positions.

Negroponte predicted technology would give us a “Digital Me.” He was right. A decade ago, University of Chicago Professor Cass Sunstein – now President Obama's regulatory “czar” -- predicted the Daily Me would lead to a polarization of news and information. He, too, has unfortunately been proven to be correct.

There are proactive steps we can take. If we cannot completely extract ourselves from these hollers, we can at least build some highways connecting us to the larger landscape. But while information isolation has been increasing for some time, most of us are like the proverbial frog who fails to recognize he is

boiling to death and declines and hop out of the pot. After all, the temperature is only increasing at a very slight rate, and doggone it, it feels pretty nice.

As they say in twelve-step programs, the first step is to recognize we have a problem. It will be very easy for me to look at someone with a view opposite mine and say “Yes, that person is trapped in a digital hollows. She’s an obvious victim of group polarization. She needs to be exposed to my sources of news, to my perspective.” Yes, she does. But I need to be exposed to her sources of news as well.

This can be particularly hard when the professional editors and fact-checkers are gone. Who am I to determine what is true, what is false, and what is intentionally misleading?

Because there is such a need for such services in our modern society, sources are emerging to do just that. Just as a tremendous amount of misinformation can circulate in the digital age, so can an amazing array of facts, including important data and information being made available through trends toward transparency, in government, politics and business. There are movements out there attempting to mine this data and better inform the citizenry. Yes, there are sometimes biases behind these efforts as well, but bias can be addressed if we’re cognizant of it going in.

Leaders of both major parties spent 2008 telling us how we needed a new form of dialogue and cooperation in Washington. We were told politicians would listen to each other and work together. We would be entering not a world of nonpartisanship – that concept ignores the strong principles each party feels it

brings to the debate – but post-partisanship, where the legislative process would serve democracy rather than partisan interests.

Very little post-partisanship was apparent in 2009.

There is in fact no incentive for post-partisanship. As long as our elected leaders do in fact have to be elected, they will respond to their constituents. The self-imposed isolation of digital hollows and the amplification capable through digital connectivity will continue to force politicians to extremes, a trend that for the last twenty years or so has made the moderate an endangered species on Capitol Hill.

It's unreasonable to expect technologists to start building their services to be less responsive to what we are demanding. It's unreasonable to expect politicians to display profiles in courage and act in the better interest of society against their own self-preservation.

That means the only way we can reverse, or at least slow, this erosion of our democracy and our role as informed citizens is to awaken to the problem we are creating. By becoming conscious of our own role in the dissemination of misinformation and the resulting corrosion of our public policy process, we can begin to use the tools technology gives us to create a better informed citizenry and a more functional and responsive government.

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BY PATRICK ROSS

NOTES

INTRODUCTION

A poll taken that month -- The study was conducted by the Pew Research Center with Princeton Survey Research Associates International among a nationwide sample of 1,503 adults.

In July of 2008, another poll -- This was another Pew/Princeton survey, this time of 2,004 adults.

A month later the latest poll showed – The survey by the Annenberg Public Policy Center of the University of Pennsylvania surveyed 1,286 adults just before the election. Newsweek reported the story under the headline “Factcheck: Americans Will Believe What They Want to Believe.” Things were a bit more dismal in Texas, where a poll of 600 adults by University of Texas political scientists found 23% believed Obama was Muslim. In fairness to residents of the Lone Star State, other polls were nationwide; other states likely would have joined Texas above the average, although it would have been interesting to see a robust data set of state-by-state comparisons to see if red (Republican) states would have higher levels; that would mesh with the Republican-Democratic divide the Annenberg poll revealed at the end of the election.

Follows trends long identified by social scientists – This section follows research compiled by University of Chicago Professor Cass Sunstein in *Democracy.com* (Princeton University Press, 2001).

Research at the beginning of his Administration – Both polls were conducted by the Pew Research Center for the People & the Press with Princeton Survey Research Associates. The approval rating poll was a nationwide sample of 1,308 adults March 9-12, 2009. The partisanship poll was a nationwide sample of 1,506 adults March 31 – April 6, 2009.

there's a street vendor who sells burritos – Should you find yourself in downtown Washington, D.C., and would like a tasty bean burrito with a choice of sauces, visit <http://www.pedroandvinnys.com/> and see if he's open.

But as a Nobel prize-winning economist once said – Herbert A. Simon was a dynamic individual. He won the Nobel Prize in Economics years after he had moved on from economics to his new passion, computer science, a field in which he won the Turing Award. He believed artificial intelligence was the solution to the information overload; to date, information seems to be growing faster than do advances in artificial intelligence. An interesting look at his life can be found in Hunter Crowther-Heyck's *Herbert A. Simon: The Bounds of Reason in Modern America*, The Johns Hopkins University Press, 2005.

the amount of information added annually – “The Diverse and Exploding Digital Universe: An Updated Forecast of Worldwide Information Growth Through 2011,” an IDC White Paper sponsored by EMC, March 2008. I feel compelled to note that we frequently see grandiose forecasts in the digital space, but this study was updated from one a year earlier, and they found they had underestimated exabyte growth from 2006 to 2007 by 10%.

news feed he called “The Daily Me.” – Nicholas Negroponte, *Being Digital*, Vintage, 1996.

How can you trust the validity of that “tweet” – As The Washington Post's Mike Musgrove noted in “That Famous Twitter Friend Proves Faux” (March 28, 2009, C1), you never know who is behind that Twitter feed that's tweeting you. Celebrities routinely hire others to tweet for them, and sometimes pranksters impersonate others, even those you would not consider celebrities, such as marketing guru Frank Luntz.

Wired editor Chris Anderson describes – Chris Anderson, *The Long Tail* (Hyperion, 2006). Anderson's thesis was that the market for goods is a Pareto curve, with the X-axis being each discrete good and the Y-axis being revenues from sales. The first few items along the X-axis are bestsellers, with data points high on the Y-axis and much area under the curve. Anderson felt items way down the X-axis, where the data points weren't very high above the X-axis, could be more easily sold online. He theorized there was more money to be made on the Long Tail of the curve, i.e., more area under the tail than under the front of the curve. Unfortunately, study after study has found this not to be true; the bulk of revenues are still at the head of the Pareto curve, not the tail.

the “Army of Davids” that Glenn Reynolds praised – Glenn Reynolds, *An Army of Davids: How Markets and Technology Empower Ordinary People to Beat Big Media, Big Government, and Other Goliaths* (Thomas Nelson, 2006).

Noted scientist Jared Diamond -- Jared Diamond, *Guns, Germs and Steel: The Fates of Human Societies* (W.W. Norton, 2005).

As Malcolm Gladwell noted – Malcolm Gladwell, *Outliers: The Story of Success* (Little, Brown and Company, 2008).

Consider these incidents among members of Congress – The non-profit cable channel C-SPAN, funded by the cable industry, archives interesting trivia on the history of Congress. More on these incidents can be found at <http://www.c-span.org/questions/weekly39.asp>

never ventured more than a few miles – A good reminder of how insulated those of us in the United States can be in our thinking of such things can be found in *The Power of Place* by Michigan State University Professor Harm de Blij (Oxford University Press, 2009). The book acknowledges some points found in Thomas Friedman's *The World is Flat: A Brief History of the 21st Century* (Farrar, Straus and Giroux, 2005) but also notes that for most of the Earth's population, mobility – either geographically or economically – remains but a dream.