

Privacy, Propriety, Performance, and *Pseudonymity*

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YAHOO NATION

My grandfather cast a shadow over my childhood taller than his six foot, rail thin frame. He believed strongly that in one's life a noble sense of purpose should be a stronger calling than the pursuit of wealth or fame. As a healthy eleven year-old during the influenza pandemic of 1918 he was sent by horseback on daily rounds of nearby farms that were struck by the flu. The tragic scenes he saw then inspired him to become a doctor, and he was disappointed that none of his descendants followed his footsteps into a medical career.

Although my grandfather lived his entire life in the 20th century, in many ways he was a very much a product of the Victorian 19th. As the youngest of nine children his oldest siblings had been born early in the 1890s. The entire family was raised according to a sense of propriety appropriate to a Pennsylvania farming community of the era. In the context of the late 20th Century, when I knew him, his views on race and gender could be appalling and, while I'm not glad he's dead, I admit I am glad he didn't live to share his opinions about the election of Barack Obama to the Presidency with me.

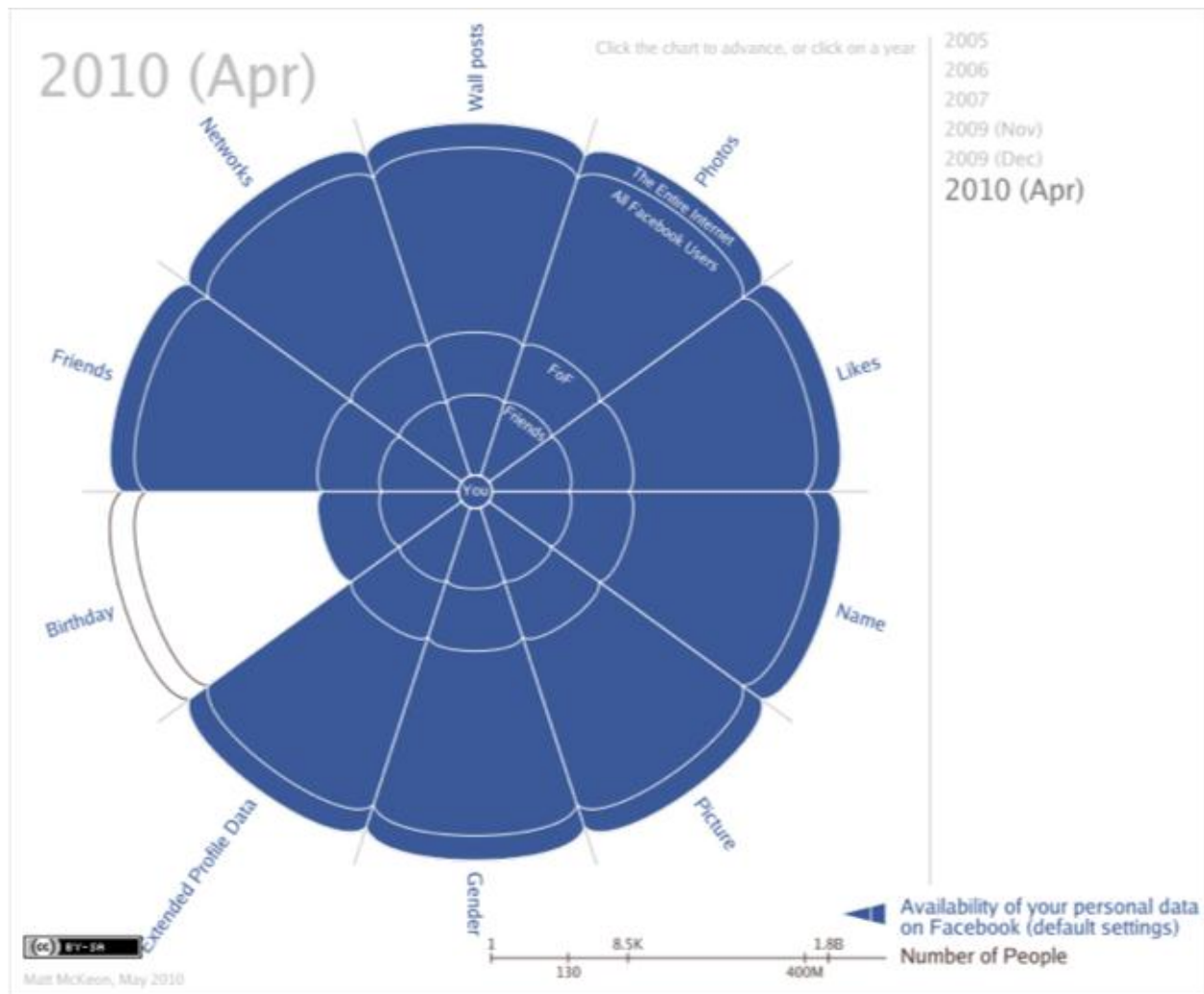
On graduating from medical school, he turned down a position at the Mayo Clinic and instead spent his entire career as a general practitioner caring for the large population of poor immigrants in Lowell, Massachusetts. He didn't become a doctor because he wanted to be rich or famous, and he chose to use his training treating the afflictions of people who he certainly felt to be his social inferiors. While I may see an apparent contradiction in this, he wouldn't have seen it at all.

He held his social equals, including his children and grandchildren, to high standards and he made a clear distinction between the behavior of gentlepeople and "the Yahoos" (always with a long "a" as if spelled "Yay-hoos"). In his view the Yahoos were those who had choice in their behavior yet chose to act in ways that challenged his sense of propriety. The boaters who whooped as they sped at full throttle past grandad's lake camp were yahoos, as were drivers of cars that going too fast or owners of radios turned too loud.

But there was also a subtler form of Yahooism that was defined less by what people did than by the amount of attention they attracted in doing it. People who sat on their porches drinking beer were Yahoos, not because they drank beer, but because they did it where they could be seen by anyone passing by. Public displays of affection that went beyond sitting together on a loveseat were the displays of Yahooism. Yahoos told you what they thought when their opinions weren't asked for, talked about themselves even when they weren't especially interesting, and otherwise tried to make themselves the center of attention.

What one did in the public sphere was a measured performance called "keeping up appearances" that individuals did to maintain a functioning society. Yahoos were those who didn't do their part in keeping up appearances.

My grandfather probably never experienced the Internet at all — by 1993 he was showing clear signs of Alzheimer's disease, which he was proud to have self-diagnosed even if he kept forgetting what it was called. But it's probably just as well that he couldn't have had any inkling that something like Facebook was on its way. A gentleman raised with 19th century America's sense of propriety could only look at our country's use of social media in 2011 and conclude the Yahoos have completely taken over.



Much criticism centers on the sharing of information on user behavior between Facebook and third parties that have a business relationship with Facebook. In one extreme but illustrative example, Facebook's now-discontinued "Beacon" service published information on purchases made by its users on third-party sites to the Facebook news feeds of those users. The program's initial "opt-out" model led to many users having their purchases publicized on Facebook without their knowledge, even though at Beacon's launch event, Facebook founder Mark Zuckerberg maintained the system would be strictly "opt-in."⁵ Despite repeated changes to the permission defaults and the interface for managing them, the challenge of only publicizing purchases that had been approved by the buyer was never satisfactorily solve.

In a consumer society, there is perhaps no more intimate way to know an individual than by being privy to the products he or she spends money on. Nearly every category of good can be viewed as having both private and public subsets. Take clothing for example: A jacket may be purchased with the intent of making a bold public statement, while lingerie may be destined for a more private communication. Other product categories commonly purchased online, such as books and media, travel reservations, and event tickets have similar public and private components.⁶ Even in cases when a purchase might carry no fear of embarrassment, it seems to have never occurred to Facebook that some purchases are meant to be gifts and nothing ruins a pleasant surprise more than finding out about it in advance through a post on the giver's news feed. These

reasons were all cited in a class action lawsuit brought against Facebook which surely contributed to the eventual cancellation of Beacon.⁷

There is a conceptual mismatch between the "Privacy Settings" control panel Facebook provides to users and the sharing of information with third party developers. For example, I am aware that having my complete date of birth makes it easier for evildoers to find information about me that I don't want them to have, including my Social Security number. But I enjoy all the birthday greetings I get on my Facebook wall every year. So in my privacy settings, I display the month and day of my birth, but not the year.

In looking into Facebook's sharing of information I built my own application using of Facebook's Social Graph API to access user data.⁸ The application asks users to grant it access to information about them in a number of categories, including the user's birthday. When I use it, Facebook shares my complete date of birth including the year, even though my privacy settings explicitly hide the year from anybody — even my closest family members — looking at my information on the Facebook site itself. I could easily see myself granting some other application access to my date of birth without thinking much about it.

This example is simple, but it shows the hat trick Facebook plays with privacy settings. Users who have made the effort to set up their privacy settings in a manner that they are comfortable with may assume these settings carry over to any applications they may use, but in truth they may be blocking their friends and family from accessing information that they have shared with anonymous developers whose screening by Facebook consists of nothing more rigorous than the registration all users fill out when creating an account.

ONE MAN'S PRIVACY IS ANOTHER MAN'S PROPRIETY

On deeper inspection, it starts becoming clear that not all privacy issues are actually privacy issues. My mild concern about my birthdate being used to obtain my Social Security number isn't really about privacy. The year of my birth isn't something I'd be embarrassed to have strangers know. What I'm really trying to protect, albeit very weakly, is my security.

A different decision I made about a Facebook setting is more closely related to privacy.

A couple of years ago I created a Facebook group for people who were associated with the 1970s - 80s alternative music scene in the city where I grew up. Over the next several months, hundreds of people joined. They posted photos, and shared reminiscences in exactly the same way that any large group of people being reunited after a couple decades might. The momentum generated on Facebook led to a real life reunion spanning two nights of partying and live music.

Throughout this period, the Facebook group was running with default settings. Anyone could join. Non-members who found the group on Facebook could browse it. But then Facebook made a change to its settings and the content of the group began appearing in Google search results.

The common bond between the members of the group was their participation in, or at least appreciation for, punk and avant garde music and art deliberately designed to challenge accepted societal notions of propriety. While many in the group continue to live alternative lifestyles, others of us have become more invested in mainstream culture. Within the context of the Facebook group we could all interact on the same plane, using the same touchstones of language and environment that we had formerly shared. It was by design a group for a certain subset of complete and total Yahoos.

Outside of the context of the Facebook group, the exact same content lost some of its meaning. The deliberate nature of punk's Yahooism in challenging propriety could be read as though it lacked the self-awareness or irony that the participants brought to the conversation. I stepped back from conversations that I completely understood inside the group and read them as though they might be found through Google search results conducted by a potential employer. It wasn't hard to see potential repercussions to individuals from having this content openly accessible

As group founder I felt a certain responsibility to guard the reputations of members that might not be considering the consequences of their speech removed from the context of the group. That led to my choosing to take the group private. This meant that no longer could anyone just join without being approved by a moderator, which ran completely counter to the open nature of the group's bond, but it also meant that content would not be separated from context. But there's a strange contradiction in protecting speech deliberately challenging propriety by making it invisible to the society whose propriety it challenges.

Is this a simple question of protecting the privacy of members of an affinity group on Facebook, or is there even more going on?

EVERYBODY'S A STAR

These two personal cases of using Facebook's privacy settings illustrate that "privacy" is a very broad term. Early in her 2010 South by Southwest keynote presentation ethnographer danah boyd defined her conception of privacy. "Fundamentally, privacy is about having control over how information flows. It's about being able to understand the social setting in order to behave appropriately. To do so, people must trust their interpretation of the context, including the people in the room and the architecture that defines the setting. When they feel as though control has been taken away from them or when they lack the control they need to do the right thing, they scream privacy foul."⁹

boyd's definition is a good one, but I believe there is value in further teasing out discrete components of what we generically call "privacy." If we better understand the different aspects of private information then we can better understand user behaviors, and potentially understand ways to better give them the protection they want.

In the case of my birthdate on Facebook, my "privacy" concern might be better labeled a concern about "security." The reason I want to obscure my year of birth has nothing to do with wanting to it to be a personal secret. It has everything to do with wanting to keep it out of the hands of people who could harm me in quantifiable ways.

Likewise, the Facebook group that I reluctantly made "private" doesn't benefit from that term. How "private" can content posted to a group with 580 members really be? As boyd says, the problem I was trying to solve was making sure the content was available to be understood in the proper social setting, and not misunderstood by being accessed through an essentially context-free entry point provided by Google search results. In her keynote, boyd argued:

"Many people mistakenly assume that tweets and status updates are the same thing. They are not and the difference has to do with publicity. While many started using Twitter to communicate with friends, the site has evolved to be primarily about those seeking an audience and those seeking to follow or contribute to a public in some way. Facebook, on the other hand, is still fundamentally about

communicating with a specific set of people who are, by and large, your friends. Facebook is clearly looking to change this but, as it stands, these two services are primarily used very differently by their core users."¹⁰

What Boyd overlooks that I think is potentially very revealing is that for many people our relationships with our friends — on Facebook or otherwise — are motivated by a performance imperative. Perhaps it is different from the way we perform on Twitter, but it is performance nonetheless.

As social animals, humans are constantly adapting and filtering our behavior to fit the social environment around us. We act differently in groups than we do when we're alone with one other person, and we act even more differently when we're alone with ourselves. We behave differently at work than at home, and we behave even more differently at a rock concert. We address our bosses differently than we address our parents, and we address our romantic partners even more differently. I suspect most people would perceive the failure to behave differently in different social situations on a scale running from eccentricity to outright insanity, depending on the behavior exhibited: A person who always addresses others politely and formally is "odd," but a person who performs acts in public that most only perform in private is "crazy." (Although sometimes that "craziness" carries with it a cachet of genius or even divinity.)

Part of the human inheritance is an innate capacity for performance, which comes from this need to project different behaviors depending on social situations. Actors develop this skill to the level of a high art, while the rest of us just try to get by without embarrassing ourselves too terribly much.

Online interactions provide rich opportunities for performance. As early as 1993, the capacity for projecting an alternative self on the Internet was cleverly captured by *New Yorker* cartoonist Peter Steiner with the caption "On the Internet, nobody knows you're a dog" underneath a drawing of a dog at a computer talking to another dog.¹¹ The phrase so aptly captured the anonymity free-for-all of the era that it inspired the title of a play,¹² and by 2000 was described as having "slipped into the public consciousness, leaving its source behind" despite the cartoon's becoming the most reprinted *New Yorker* cartoon in history.¹³

At that time, the Internet seemed like an anonymity free-for-all. Handles were often used in place of real names. Even when users posted with what appeared to be their real names weren't savvy users half-expected that they actually were arguing in Usenet newsgroups with dogs pretending to have advanced degrees. It wasn't easy to find information about people that you didn't have a real-world connection to — little personal data was yet online and available search tools were crude at best.

That same year of 1993 was also marked as a watershed year for the Internet by many of its established users. That was the year America Online connected its "walled garden" service to Usenet, releasing a flood of less-savvy users into an established social setting for which they had no real understanding of the accepted rules. This had been a regular occurrence every September as incoming college freshmen first gained access to the Internet, but the influx of 1993 never seemed to let up. Months later digital artist and Usenet veteran Dave Fisher (presumably his real name) wrote "September 1993 will go down in net.history as the September that never ended."¹⁴ The sentiment is familiarly known by users of that era who understood what was going on as "Eternal September."

Before long Usenet itself would be eclipsed by the World Wide Web, where expected social behaviors were no longer defined at the level of data transfer protocols, but instead uniquely established at the level of individual websites, or even individual features on those sites. This could be a lot of different expectations in social

behavior: As of March 6, 2011, the Domain Tools website listed 129,133,774 active domains, just within the six top level domains it tracks.¹⁵

LET IT ALL HANG OUT

Toward the end of her 2010 keynote, danah boyd briefly touched on a site that was just beginning to attract significant attention: ChatRoulette. "For those who have been hiding under a rock, ChatRoulette is a peer-to-peer webcam-based video chat site. Turn your webcam on and click "New Game" and you will find yourself randomly connected to a stranger who also has a webcam and has decided to play along. Don't like what you see? That's fine... click "Next." But realize that the person (or people) at the other end of the tube can also click "Next" on you."¹⁶

While acknowledging the sheer amount of sexual exhibitionism that can be found on ChatRoulette, boyd also sees interesting echoes of the early, anonymous, Internet on the site.

"Why do people engage on this site? What you'll find on ChatRoulette is both heartwarming and heartbreaking. From kids playing Rock Band to people dressing up in costumes, there are plenty of folks who want to entertain or be entertained. It's boredom relief. Others are looking to find more personal connections. I met teens who wanted to hear about college and people who wanted to practice English. There are also plenty of teens hoping that they'll meet a celebrity (or thinking that they did).

ChatRoulette is bringing back the randomness of early web culture in an era where everything has been focused on pre-existing social networks. The idea is not new, but its moment in the sun highlights that people are not yet over the random public-ness that the early web provided.

ChatRoulette is an odd combination of privacy and publicity. On one hand, participants are typically physically situated in spaces that they deem private - their bedrooms, their offices, etc. But by enabling random connections with strangers, ChatRoulette becomes a networked public space. Most users think that there's no way to locate someone — either physically or digitally — unless they share information. This creates a sense of anonymity, a sense of disconnect that makes it feel safe. Of course, what they don't realize is that someone has started capturing IP addresses and connecting photos to geolocations. So we'll see how long average people who don't understand Tor think that they're anonymous.¹⁷

(The "Tor" that boyd refers to is a system that provides online anonymity by cloaking user ip addresses¹⁸. Although not captured in the online transcript of her speech, boyd mused in an aside that we may be raising a generation of teenagers that know how to use proxies to mask their identities.)

The performance aspect of ChatRoulette is obvious. On camera, users are transformed into actors, not merely interacting with strangers but also watching their own performances, judging, adjusting, and directing themselves. When boyd compares it to an earlier era of the Web, she is catching a faint echo of the online performance styles that evolved in what could be labelled the Pseudonymous Age.

THE DECLINE AND FALL OF THE PSEUDONYM

For many years the expectation that anonymity, or at least pseudonymity, was not only possible, but sometimes preferable, carried over to the web from the earlier Internet forms. Perhaps because they offered

an experience similar in use protocol to the categorized and threaded conversations of Usenet, the affinity group message boards that defined much of the earlier Web's social interaction also copied Usenet's loose requirements for identity. It wasn't unusual for more-experienced Web users to advise newer users not to use their real names anywhere except on trusted commerce sites where they were essential to completing the transaction.

Launched in 2002,¹⁹ the pioneering social networking site Friendster garnered a lot of attention. Central to its experience was the need for users to create accounts under their real names, allowing their friends to find and connect with them. While Friendster didn't catch on, the idea was obviously good enough that within months MySpace copied it fairly directly, and LinkedIn gave it a "professional networking" spin. Early in 2004, Facebook (née "The Facebook") became available to Harvard students.

While I was an early adopter of Friendster and LinkedIn, I had to overcome some personal unease about using my real name on those sites, and connecting it with a navigable network of my friends and professional contacts. Aside from having my name in the byline of articles I had written or the masthead of sites I had worked on, I had quite deliberately not used my name for any other online purposes. It just wasn't common sense to do so.

In May 2004, *Seattle Times* technology columnist Paul Andrews wrote a column advocating the use of real names in online forums. Addressing the common use on the *Slashdot* site of the pseudonym "Anonymous Coward" he acknowledged the long tradition of obscuring one's identity online, as well as the ultimate futility inherent in it:

Anonymous Coward (whose pseudonym also says it all) carries on a curious geek tradition going back more than a quarter century — as long as public electronic bulletin boards have been around. If you've spent much time in chat rooms, online forums or other Net hangouts, you know how widespread pseudonymity is.

Lately I've been wondering, though, if it's time to abandon tradition. Online credibility has to keep solidifying if the Internet is going to continue making progress as a trusted medium, not just for communications but for business and commerce. One huge step toward bolstering credibility would be the standard operating procedure of using one's true identity.

It should be noted that pseudonymity is not the same as anonymity. Most Web users who go by nicknames can be identified through registration, IP addresses and other means. Anonymous Cowards are unidentified for the purposes of discussion, but they are not untraceable.

I myself am registered on various forums under pseudonyms. But I've never liked posting under a false name. It just doesn't seem right — if I really believe in what I'm saying, I ought to at least back it up with my real name. Yet using one's own name in many forums feels a bit like walking into a room with no clothes on.

The problem is, pseudonymity creates a culture that fosters and even tacitly sanctions true anonymity. And anonymity is what really hurts the Web. Hackers, spammers and other digital lowlife thrive more easily in an environment where nobody has to use their own name.

Consider last month's scandal at Amazon.com, where a technical glitch revealed authors 'pimping' their own books and slamming competing works, under false or generic identities.²⁰

Having read the above when it was first written, I quickly exchanged emails with Andrews explaining my surprise that he would take such a position that so clearly broke with Internet culture and history. In retrospect, my objections seem naïve and Andrews' position almost prescient.

In the Amazon incident the article refers to, the Canadian Amazon site accidentally published the primary account holders' names for book reviews written under a variety of pseudonyms²¹. This not only unmasked many authors giving their own books five star reviews and trashing the works of their competitors, but perhaps more damagingly revealed that the data structure of Amazon's accounts made it very easy to ferret out such activity, but Amazon had not done so on its own.

Shortly after Andrews published his column, Amazon introduced a new feature on its user-submitted reviews: The Real Name Badge.²² The badge appears near the author attribution of user-submitted reviews. In Amazon's words:

"A Real Name attribution is a signature based on the name entered by the author as the cardholder name on his or her credit card, i.e. the author represents this name as his/her identity in the "real world." An author willing to sign his or her real-world name on content posted on Amazon.com is essentially saying "With my real-world identity, I stand by what I have written here."²³

When the "Real Name" badge rolled out, it attached itself to reviewer names associated with accounts that had identities confirmed by credit cards, even if the reviewer name was not the same as the account holder name. Clicking on the linked text "See all my reviews" returned a page showing all reviews written by the account holder, along with the name(s) under which they had been written. This marked a significant departure, not only from Amazon's previous policy of simply displaying the name submitted with the review, but also from common and well-established standards of pseudonymity.

In making this change, Amazon retroactively exposed the various pen names that some reviewers had used. It's not clear if notification was sent to its user that this change in Terms of Service had been made — unlike the obsessive online detailing of changes in how Facebook handles user information, Amazon's actions have left few traces that can be detected through Google searches.

Just a few weeks after the introduction of "Real Name," I became aware of an author being embarrassingly tripped up by the mismatch between his expectations of how Amazon (and most of the Web) worked, and Amazon's new approach to handling personal identity.

Rob Neyer is a Baseball columnist and author. In August 2004 he received a review copy of a book by Steve Kettman, another baseball author, in the mail. When he sat down to read it, he had an extreme reaction:

"After reading a dozen or so pages, I stopped. And threw the book across the room. I'd never thrown a book in anger, and I hope I never do again. It's not something I'm proud of, because I love books and anyway there's nothing rational about throwing one."²⁴

Neyer clearly didn't think the book was worth its \$25 cover price and considered his options for publicly expressing his opinion: He could post it on his own website, work it into one of his columns for ESPN.com, or ask someone to bring it up in an online chat. But then he had another idea.

I decided to write a customer review on Amazon, where it presumably would be seen by a few readers and mostly ignored. And I wrote the review under a pen name. Why a pen name? Because I didn't

want this to be about me. If I used my real name, people would notice. It certainly wouldn't do Kettmann any good (because people would, I figured, take it somewhat more seriously) and it probably wouldn't do me any good (because Kettmann's cronies might, I figured, take revenge by savaging my books). I'm not saying it was the right thing to do, but the truth is that I didn't give it a lot of thought. There's a long and honorable history of anonymous writing in this country, and I didn't even imagine that it could do anybody any good if I wrote as myself. Instead the review and its (anonymous) author would be mostly ignored.

Soon after Neyer's negative review was published on the book's Amazon page, several glowing reviews appeared, and Neyer suspected they were being orchestrated by Kettman or someone close to him to deliberately bury Neyer's review. He struck back by writing another negative review and asking a friend to post it.

This game of tit for tat didn't go on for long. Unaware that Amazon had changed the rules of pseudonymity, Neyer was surprised when a columnist contacted him to ask why he'd written such a negative review, and used a pen name to do it. About to be outed, Neyer chose to replace the pen name with his real name, and complained to Amazon about the suspected phony positive reviews. Most of the reviews for the book, including the ones Neyer wrote, were removed, but in his extensive mea culpa posted to his website, Neyer explained how some amateur sleuthing seemed to show that the four reviews remaining — all positive — had been posted by users with personal connections to the author. A series of postscripts Neyer added to his original story ended with this one:

Postscript VI: In the weeks following the events related above, I've learned some disturbing things about how Amazon manages the customer reviews. I literally don't have the space to even summarize what I've learned, but I can tell you that it's not pretty.

This event is worth mentioning because it captures a moment in time when the nature of online identity was being shifted by the unilateral action of a major business. The sort of mayhem that can happen when expected identity protocols are changed without warning is clear. Surprisingly, even before he wrote about his side of the story, Neyer's subterfuge was in some ways the most honest part of the situation. He had a considered reason for obscuring his identity in his first review, and felt that doing so would give him a chance to accurately express his opinion to potential book buyers without the fact of his identity affecting the weight given to his review. The positive reviewers, on the other hand, seem to have been motivated mostly by wanting to show support for someone they knew.

THE POWER OF ANONYMOUS

In 2011 Christopher Poole gave a keynote speech at South by Southwest. More famous under his nom de hack, "moot," Poole is the founder of the 4chan imageboard site, which thrives on anonymous usage. Striking back at the Facebook founder's stance on radical transparency, Poole stated:

Zuckerberg's totally wrong on anonymity being total cowardice. Anonymity is authenticity. It allows you to share in a completely unvarnished, raw way. The cost of failure is really high when you're contributing as yourself.²⁵

This speech came days after a number of large websites with active user comment sections switched to Facebook authentication, replacing pseudonymous handles with the (presumably) real names used on

Facebook. (Although all these examples violate Facebook's terms of use, I personally am friends with people who have multiple accounts with different names for different audiences, use the names of inanimate objects in place of their real names, and aren't actually people at all, but pet animals. But mostly, it seems, Facebook users follow the rules.)

One site that made the switch was TechCrunch and, given its high visibility amongst people interested in human/technology interaction, the result of the new authentication was widely discussed. The consensus was that the both the quantity and the vitality of TechCrunch's comments had suffered with the introduction of Facebook authentication.

Face it, authenticity goes way down when people know their 700 friends, grandma, and 5 ex-girlfriends are tuning in each time they post something on the web.

Don't believe me? Go to TechCrunch and count the comments on last week's posts. Better yet, go read the comments. They suck. They're sterile and neutered.

The nature of commenting on the web needs to feel organic and fluid, just like it does in real life. And even anonymous if necessary, though that's not at the core of my argument.²⁶

On the other hand, anonymity is very much as the core of Christopher Poole's argument. "Anonymity is authenticity...It allows you to share in an unvarnished, unfiltered, raw and real way. We believe in content over creator."²⁷

What 4chan offers then, might be a release valve from the remaining strands of propriety that constrain our online actions elsewhere. Free from our identities, we can share things that few of us would want associated with us in real life. And from that can emerge an unfettered brilliance and creativity that pushes the envelope in ways that benefit our real lives as well as our anonymous ones.

My grandfather didn't necessarily think it was what you did that made you a Yahoo. It was whether people knew it was you when you did it. Whether he knows it or not, 4chan's Christopher "moot" Poole is a 21st Century Victorian Gentleman.

AFTERTHOUGHT: AVENUES OF INQUIRY

From here, it's possible to see several possible paths for future inquiry.

For example, an experiment might quantitatively measure the differences in behavior between subjects when they are assured of anonymity in their actions and when their actions are associated with their real names.

The definitive social history of the pre-Web Internet might have limited readership, but to those with an interest in spontaneous online community generation it could provide valuable insights.

Sexual exhibitionism on ChatRoulette is but the newest form of the long-popular Internet activity of posting pictures of yourself naked. Is there a spectrum of behavior ranging from one-on-one texting to the (seemingly) fleeting exposure on ChatRoulette, to the uploading of amateur porn to sites that archive it and make it publicly available indefinitely?

¹<http://thenextweb.com/socialmedia/2010/01/29/facebook-users-changed-privacy-settings/>

²<http://www.google.com/search?q=facebook+privacy+issues>

³http://en.wikipedia.org/wiki/Criticism_of_Facebook

⁴<http://mattmckeeon.com/facebook-privacy/>

⁵<http://bits.blogs.nytimes.com/2007/11/30/coke-is-holding-off-on-sipping-facebooks-beacon/>

⁶<http://www.marketingcharts.com/direct/875mm-consumers-have-shopped-online-up-40-in-two-years-3225/nielsen-global-ecommerce-most-popular-online-purchases-copyjpg/>

⁷http://www.usatoday.com/tech/hotsites/2009-09-21-facebook-beacon_N.htm

⁸URL of app goes here.

⁹<http://www.danah.org/papers/talks/2010/SXSW2010.html>

¹⁰<http://www.danah.org/papers/talks/2010/SXSW2010.html>

¹¹<http://www.cartoonbank.com/1993/on-the-internet-nobody-knows-youre-a-dog/inv/106197/>

¹²<http://www.alandavidperkins.com/nkiad/>

¹³<http://www.nytimes.com/2000/12/14/technology/14DOGG.html?pagewanted=all>

¹⁴<http://groups.google.com/group/alt.folklore.computers/msg/4bd75d223b992e8d?pli=1>

¹⁵<http://www.domaintools.com/internet-statistics/>

¹⁶<http://www.danah.org/papers/talks/2010/SXSW2010.html>

¹⁷<http://www.danah.org/papers/talks/2010/SXSW2010.html>

¹⁸<http://www.torproject.org/>

¹⁹<http://www.inc.com/magazine/20070601/features-how-to-kill-a-great-idea.html>

²⁰http://seattletimes.nwsourc.com/html/businesstechnology/2001879108_paul15.html

²¹<http://www.nytimes.com/2004/02/14/us/amazon-glitch-unmasks-war-of-reviewers.html>

²²<http://www.marktaw.com/technology/AmazonRealNameBadge.html>

²³<http://www.amazon.com/gp/help/customer/display.html?ie=UTF8&nodeId=14279641>

²⁴<http://web.archive.org/web/20070902143144/http://www.robneyer.com/OneDayFenway.html>

²⁵<http://www.geekosystem.com/4chan-founder-christopher-pooles-sxsw-speech-video/>

²⁶<http://stevecheney.posterous.com/how-facebook-is-killing-your-authenticity>

²⁷http://www.readwriteweb.com/archives/4chan_founder_anonymity_is_authenticity.php?utm_campaign=Tech+News&utm_medium=Twitter&utm_source=SNS.analytics