4chan and /b/: An Analysis of Anonymity and Ephemerality in a Large Online Community

Michael Bernstein, Andrés Monroy-Hernández, Drew Harry, Paul André, Katrina Panovich and Greg Vargas

Anonymous 07/20/11(Wed)15:30:05 No.339760588
mit computer science and ai lab
mit media lab
university of southampton
Identity Representation

Pseudonyms and multiple accounts demonstrate “a lack of integrity”
Google
“The web means the end of forgetting.”
— New York Times

Mark Zuckerberg
Pseudonyms and multiple accounts demonstrate “a lack of integrity”
Identity Representation

Archiving Strategy

Millen 2000
Archives are highly valued and expected to be read by newcomers.

Millen + Patterson 2003
Real names and pseudonyms “promote trust, cooperation and accountability.”
What happens in a large scale anonymous, ephemeral community?

Ma + Agarwal 2007
Strong identity and permanent archives correlate with satisfaction and participation
How does such a community produce so much of the Internet’s shared culture?
Strong identity and permanent archives correlate with satisfaction and participation

Ma + Agarwal 2007
Our Goal
Use 4chan /b/ as a lens to understand the concepts of anonymity and ephemerality.
Our Argument
Anonymity and ephemerality support community behaviors that generate internet culture.
Anonymous 07/09/11(Sat)19:27:51 No.339793221

Your fortune: Bad Luck

http://www.youtube.com/watch?v=4IC4y4oOEA&feature=feedrec_grec_index
http://www.youtube.com/watch?v=pnqSwWcdZRw&NR=1

This is why, when someone talks about how fucked up /b/ used to be and how it was sicker and far more evil.... you can tell they are newfags.

Truth

107 posts and 85 image replies omitted. Click Reply to view.

Anonymous 07/09/11(Sat)21:08:51 No.339807752

Your fortune: Outlook good

>>339807618

yeah but the links are dead...

Anonymous 07/09/11(Sat)21:09:25 No.339807847

Your fortune: Better not tell you now

>>339807618
dude everyone has pics of that chick... not the one kissing the guy, the other girl

Anonymous 07/09/11(Sat)21:10:03 No.339807955

File: 1310260203.jpg (191 KB, 600x440)

Your fortune: Bad Luck

>>339807666

Anonymous 07/09/11(Sat)20:50:37 No.339804918

Aspie with Narcissistic Personality Disorder here

what's your "excuse" for sitting at home browsing /b/ on a saturday night?

19 posts and 1 image reply omitted. Click Reply to view.

Anonymous 07/09/11(Sat)21:08:04 No.339807830

>>339807257

Punk my good sir.
I'm sure you're an excellent frontman

Anonymous 07/09/11(Sat)21:08:16 No.339807965

I could care less what day of the week it is. I have to work at 8am tomorrow.
4chan’s Impact

moot!Ep8pui8Vw2 07/20/11(Wed)15:30:05 No.339760588
over seven million users

Anonymous 07/20/11(Wed)15:30:23 No.339760
prolific meme factory
> lolcats
> rickrolling
> chocolate rain
> pedobear

Anonymous 07/20/11(Wed)15:30:43 No.339823
highly visible off-site activities
> electing moot Time Person of the Year
> hacktivist group Anonymous
/b/, the “Random” board

The most active board

Anonymous 07/20/11(Wed)15:30:05 No.339760588
30% of all traffic

moot!Ep8pui8Vw2 07/20/11(Wed)15:30:05 No.339760588
“the lifeforce of the website”
where the “rowdiness and lawlessness” happen
4chan /b/ and Ephemerality

Anonymous 07/20/11(Wed)15:30:05 No.339760588
/b/ deletes content as soon as newer content arrives

Anonymous 07/20/11(Wed)15:30:05 No.339760597
fast-paced and chaotic experience

Twitter’s design suggests ephemerality
4chan /b/ and Anonymity

Anonymous 07/20/11(Wed)15:30:05 No.339760588
posts are fully anonymous by default
rarely contain pseudonyms or other identity signals

Anonymous 07/20/11(Wed)15:30:23 No.339760597
traditional reputation systems become unworkable

Formspring.me is based on anonymous feedback
Blizzard’s shift to real names sparked an uprising
Related work

**Anonymity** 07/20/11 (Wed) 15:30:05 No.339760588

Sites with (discouraged) anonymous commenting: Usenet [Donath 1999], Slashdot [Lampe+Resnick 2004]

Removing social cues makes communication impersonal [Short, Williams, Christie 1976] and cold [Hiltz, Johnson, Turoff 1986], and anonymity directly undermines credibility [Rains 2007].

**Ephemerality** 07/20/11 (Wed) 15:30:05 No.339760588

Technology does not let us forget [Grudin 2002; Mayer-Schonberger 2009]
Content
Analysis of threads on 4chan /b/

Ephemerality
Tempo and deletion dynamics

Anonymity
Practices around identity
Content Analysis
Anonymous 07/20/11 (Wed) 15:31:04 No.3397256562
collected 598 thread-starting posts over ten days

Anonymous 07/20/11 (Wed) 15:30:05 No.339760588
rounds of iterative coding
developed nine categories to describe thread themes
Anonymous 07/20/11 (Wed) 15:30:05

ITT [“In this thread”] we only post stuff we have laughed at so hard we had tears.
This guy is a hero. :)  
http://www.youtube.com/[xxxxx]
Recently I’ve been hanging out with a girl a lot, we’re both in college. I spend the night at her place all the time and we kiss and whatnot. Problem is, she just broke up with her ex [...] and I know she’s not over him. I really like her but I dunno what to do, so what do /b/?
Sharing Personal Information 9%
U JELLY? [“Jealous?”] This is me suiting up at my formal looking fucking brilliant, then there is you fags sitting back and watching.

Discussion 8%
Hi Anonymous! So ive started this game called League of Legends a few days ago. [...] Is there anyone here who also plays it? Lets talk about it!

Request for Item 8%
anyone has a pic of that star wars battle tank with the german insignia shooped [“photoshopped”] on it? in return tits

Request for Action 7%
Make a group saying [name] is awesome on face book.
DO IT FAGGOTS

Discussing /b/ 5%
Heidi Ho there /b/ I’m a Newfag and now that i’ve been here all Summer I was wondering if i need a letter of recommendation From a Registered OldFag?
A Brief Word on Normalcy

**Media Representation** 07/20/11(Wed)15:30:05
Fox News: 4chan is “The Internet Hate Machine”

-but-

it is a community like any other

**Nudity, Gore, Homophobia, Racism**
intentionally offensive and off-color
create taste boundaries to keep out those not in it for the lulz
Study 1
Ephemerality
Anonymous 07/20/11 (Wed) 15:30:05
cool paper bro
Ephemerality on 4chan
Ephemerality on 4chan
Ephemerality on 4chan
Ephemerality on 4chan
Ephemerality on 4chan
Ephemerality on 4chan

15 threads per page
15 pages

225 threads on /b/
Ephemerality on 4chan
Ephemerality on 4chan

Bumping

Anonymous 07/20/11 (Wed) 15:30:05
cool paper bro

Anonymous 07/20/11 (Wed) 15:30:05
p values or GTFO
Data Collection

Anonymous 07/20/11 (Wed) 15:30:05 No. 339760588
complete dataset of /b/ activity over two weeks
5,576,096 posts in 482,559 threads

Anonymous 07/20/11 (Wed) 15:30:34 No. 339734523
recreate /b/’s thread position history using
post creation timestamps
Entire Lifetime

Thread Lifetime 07/20/11 (Wed) 15:30:34 No. 3397345
median thread lifetime: **3.9 minutes**
min: 28 seconds
max: 6.2 hours

43% of threads get no replies
median thread has original post and one reply

ASK A PAGAN ANYTHING

Longest-Lived Thread 07/20/11 (Wed) 15:30:34
go on do your worst (or alternatively actually get my respect and actually ask something useful)

Short-Lived Thread 07/20/11 (Wed) 15:30:34 No. 33973453984
I hope you’re glad the captcha is gone, woo yeah, let’s all be random lolz!
First Page

Why first page? 07/20/11(Wed)15:30:34
threads get most of their visibility on the first page
reminder: bumped threads are returned to the first page

Total time on first page 07/20/11(Wed)15:30:34
median time on first page: 5 seconds
min: less than 1 second
max: 37 minutes
Bumping and Sage

**bump** 07/20/11(Wed)15:30:34 No.33973454556
can reply with deliberate intent to bring the thread
to the first page and keep it from 404ing

2.16% of posts contained “bump”, “bamp”, etc.
or similar inflections

**sage** 07/20/11(Wed)15:30:34 No.33973454556
“sage” in email field leaves a reply
without bumping the thread: “burying” a thread

0.77% of posts were sages

**Interpretation** 07/20/11(Wed)15:30:34
4chan members play within the bounds of ephemerality and manipulate it
### Volume comparisons
07/20/11 (Wed) 15:30:34

<table>
<thead>
<tr>
<th>Platform</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>/b/ posts</td>
<td>400,000/day</td>
</tr>
<tr>
<td>/b/ threads</td>
<td>35,000/day</td>
</tr>
<tr>
<td>Digg threads</td>
<td>7,100/day</td>
</tr>
<tr>
<td>Usenet posts</td>
<td>25,000/day</td>
</tr>
<tr>
<td>Youtube videos</td>
<td>65,000/day</td>
</tr>
</tbody>
</table>

[Szabo+Huberman 2010, newsadmin.com]

### Alternate Archives
07/20/11 (Wed) 15:30:34

- Users save memorable content to /b/ folders on their hard drives
- 4chanarchive.org for “epic” threads
Ephemerality Discussion

Role in meme creation 07/20/11 (Wed) 15:30:34
fast pace leads to continuously fresh content
no history may mitigate “rich get richer” phenomena

Raising participation? 07/20/11 (Wed) 15:30:34
counterintuitively, ephemerality may actually
be increasing participation in /b/
participating in a thread is the best way
to keep it from 404ing
Study 2
Anonymity
Anonymity on 4chan

> Anonymous 07/20/11(Wed)15:30:34 No.33973454556
[comment text]

> OP 07/20/11(Wed)15:30:34 No.33973454556
[post using an unverifiable name]

> username!Oo43raDvH61 07/20/11(Wed)15:30:34 No.33973454556
[post using a tripcode, /b/’s only identity mechanism]
Identity Markers

**Anonymous** 07/20/11(Wed)15:30:34 No. 234028393
90.1% of posts were credited to “Anonymous”

**Gómez et al. 2008** 07/20/11(Wed)15:30:34 No. 234028399
closest comparison in the literature:
18.6% of Slashdot comments are anonymous

**Runners-up** 07/20/11(Wed)15:30:44 No. 23402839323
David 1.06% (part of a 4chan meme)
– 1.06%
OP 0.24% (claiming to be the Original Poster of the thread)

**Tripcodes** 07/20/11(Wed)15:30:34 No. 234028393
5% of posts used tripcodes
An Argument for Anonymity

Anonymous 07/20/11(Wed)15:30:34 No. 2832974298

typical online community narrative is pro-identity but, anonymity and disinhibition can have positive effects

Anonymous 07/20/11(Wed)15:33:23

masking failure makes experimentation safer creativity memes group ownership of creative content

Anonymous 07/20/11(Wed)15:30:34 No. 29038240923

anonymity can provide a cover for intimate conversations
Soup /b/ Recently I’ve been hanging out with a girl a lot, we’re both in college. I spend the night at her place all the time and we kiss and whatnot. Problem is, she just broke up with her ex [...] and I know she’s not over him. I really like her but I dunno what to do, so what do /b/?
Identity without Accounts

Anonymous 07/20/11(Wed)15:30:34 No. 2832974298
alternative identity signaling

timestamping in photos suggests authenticity

slang helps delineate group membership

4chan ‘dialect’ is nontrivial required familiarity with current trends and memes
Ingroup and Outgroup

Anonymous 07/20/11(Wed)15:30:34 No. 2832974298
Triforcing as a classic identity barrier

Anonymous 08/30/09(Sun)17:59:38 No.156666179

Anonymous 07/03/10(Sat)10:32:29 No.247423XXX
sweet im not a newfag anymore
TL;DR: Conclusion

**Content** 07/20/11(Wed)15:30:05 No.339760588
dominated by playful exchanges of images and links

**Ephemerality** 07/20/11(Wed)15:30:05 No.339760588
median thread spends 5 seconds on the first page
expires completely in 5 minutes
content deletion drives many of /b/’s dynamics

**Anonymity** 07/20/11(Wed)15:30:05 No.339760588
over 90% of posts are made completely anonymously
contrast to pseudonymous and fully identified sites
5% of posts use tripcode identity mechanisms
Come join the lulz

>> Anonymous 07/20/11(Wed)15:30:34 No. 2832974298
research follows the data
but this turns a blind eye to important communities and movements
our chanthropologist toolkit can help you collect a dataset

>> Anonymous 07/20/11(Wed)16:23:44 No. 2234534879
meme creation and spread
relationship to online activism and off-site activities
Acknowledgments: danah boyd, Amy Bruckman, Gabriella Coleman, Danyel Fisher, Benjamin Mako Hill, Alex Leavitt, Rob Miller, Lisa Nakamura, Chris Schmandt, Christina Xu and Sarita Yardi

REVIEWED UR PAPER
4CHAN
FOR MY ADVISOR
AUTHORS
Y U NO CITE ME
Reactions on /b/

Find it funny or weird 07/20/11(Wed)15:30:34 No. 2832974298
ITT: /b/ gets trolled by the MIT
I bet the FBI paid MIT to study us
That's the britfags' tax money at work lol, paying scientists to fap over Emily Watson fakes
Lol at how formally they present what goes on here. Like newt gingrich is some isolated tribe in the rainforest with unique and primitive customs.

Engaged with the content 07/20/11(Wed)15:30:34 No. 2832974298
skimmed the whole paper. interesting. i especially like seeing the breakdown of what types of threads are posted most. I would like to see the themed section broken down ie. 20% CP 8% furfag 17% raff u roose 2% fingerbox 5% sup my name is john and you're all a bunch of candy-ass s
This is... This is actually pretty damn interesting.
I think something is lost to the analysts here. The fact that one of the most popular /b/ activities is "pissing into the sea of piss".
Time of Day

primarily an after-work, after-school phenomenon