

“Cold Start” example submitted by Emily H.



Bumble CEO: Here are the 'crazy hacks' I used to grow my app into a \$1.9 billion company

Instead of traditional marketing campaigns, Wolfe Herd put together a series of “crazy hacks” to drum up interest in her Austin, Texas-based startup, she said. In one of them, she went to a cookie shop and paid the bakers \$20 to adorn yellow-frosted cookies with a white Bumble logo. Then, she took the box to a nearby college sorority.

Bumble’s early marketing strategies were aimed at attracting the “hard side” of the college campus dating network. Their approach: go after students in Greek life organizations.

Attendance



0.5% extra credit for examples relevant to recent or upcoming lectures. Submit on Ed under the “Lectures” category



Growing Pains

CS 278 | Stanford University | Michael Bernstein

Announcements

Project proposal + prototype due next Tuesday

Project proposal will be a contract between you and the TA in terms of the ambition of your project and deployment

Want feedback on your idea? Swing by TA or Michael's office hours!

Assignment 2 will be released after the project proposal is turned in, and will be due after one week

All-new reading for this week! Let us know what you think.



Last time: prototyping and cold start

Prototyping social computing systems requires a different approach than usual. Use piggyback prototyping to tie together existing social systems in order to understand the social dynamics you're creating.

The cold start problem occurs when a system is too empty to attract initial usage, so it remains empty. Two solutions:

- Focus on a narrow group initially, and broaden out later

- Be prepared to bootstrap activity

Something From Nothing



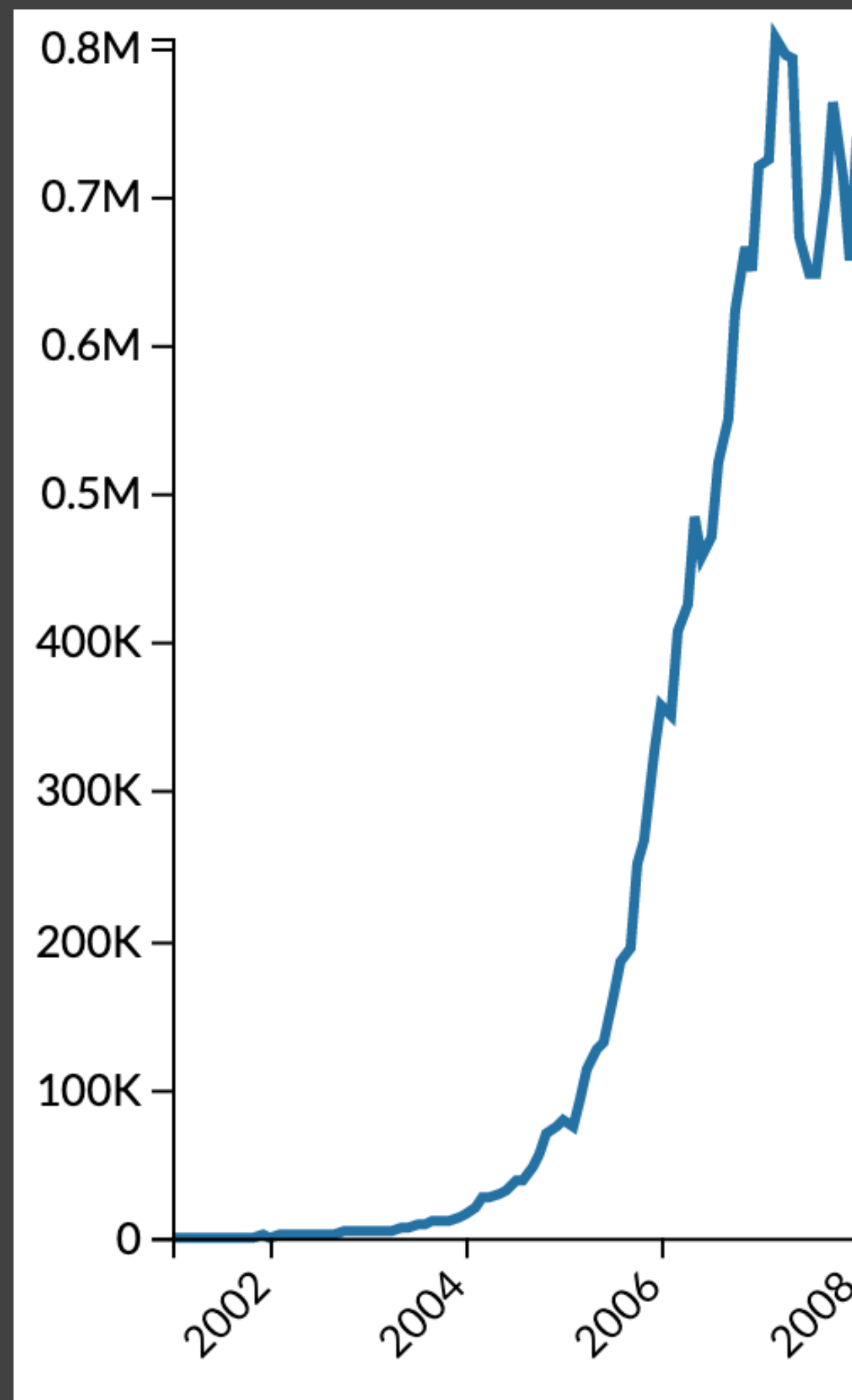
Unit 1

Oh #@&% , It Got

Popular

Unit 2

Wikipedia's growth

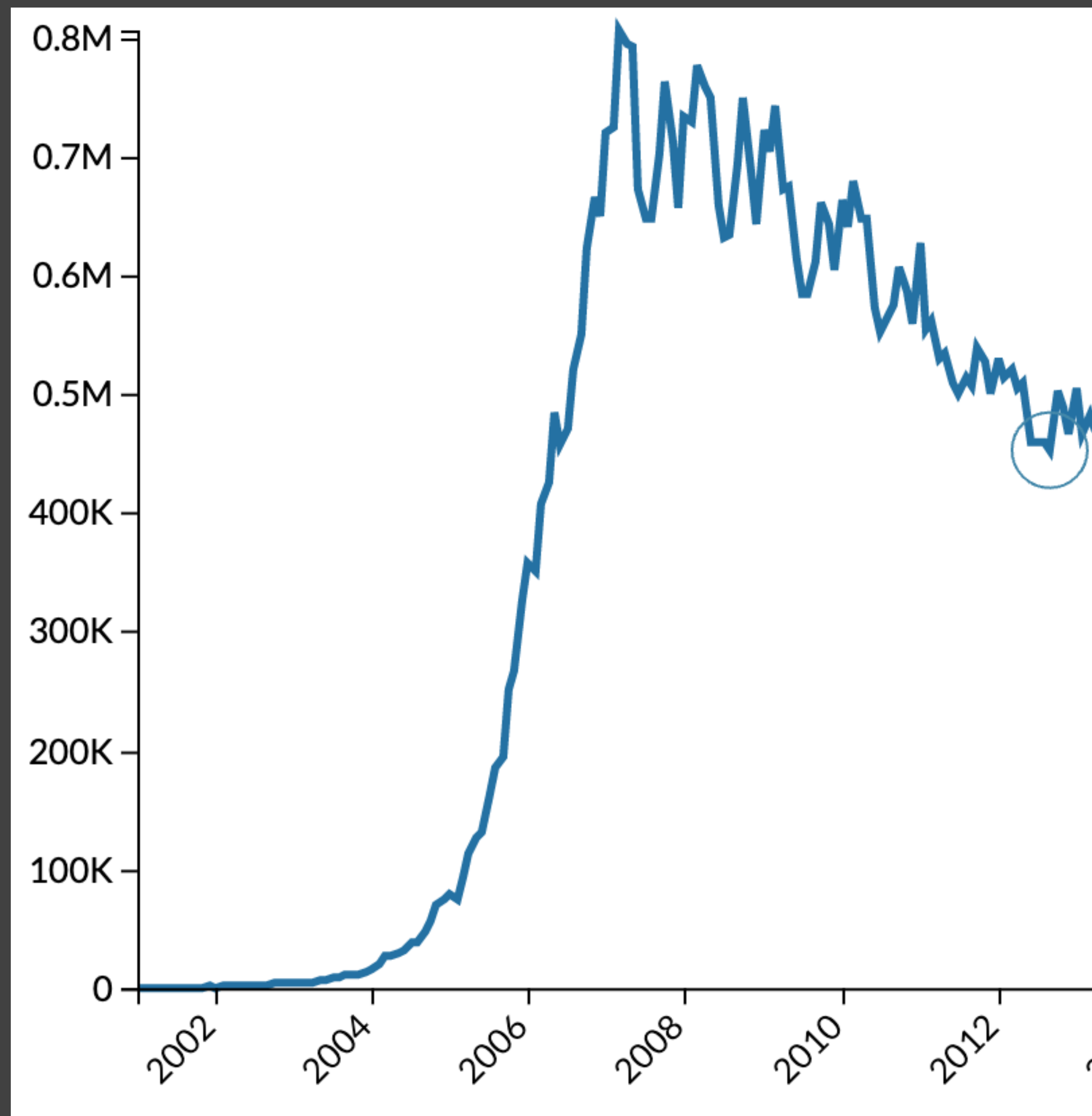


As Wikipedia emerged as the leading collaboratively edited encyclopedia, it experienced rapid growth

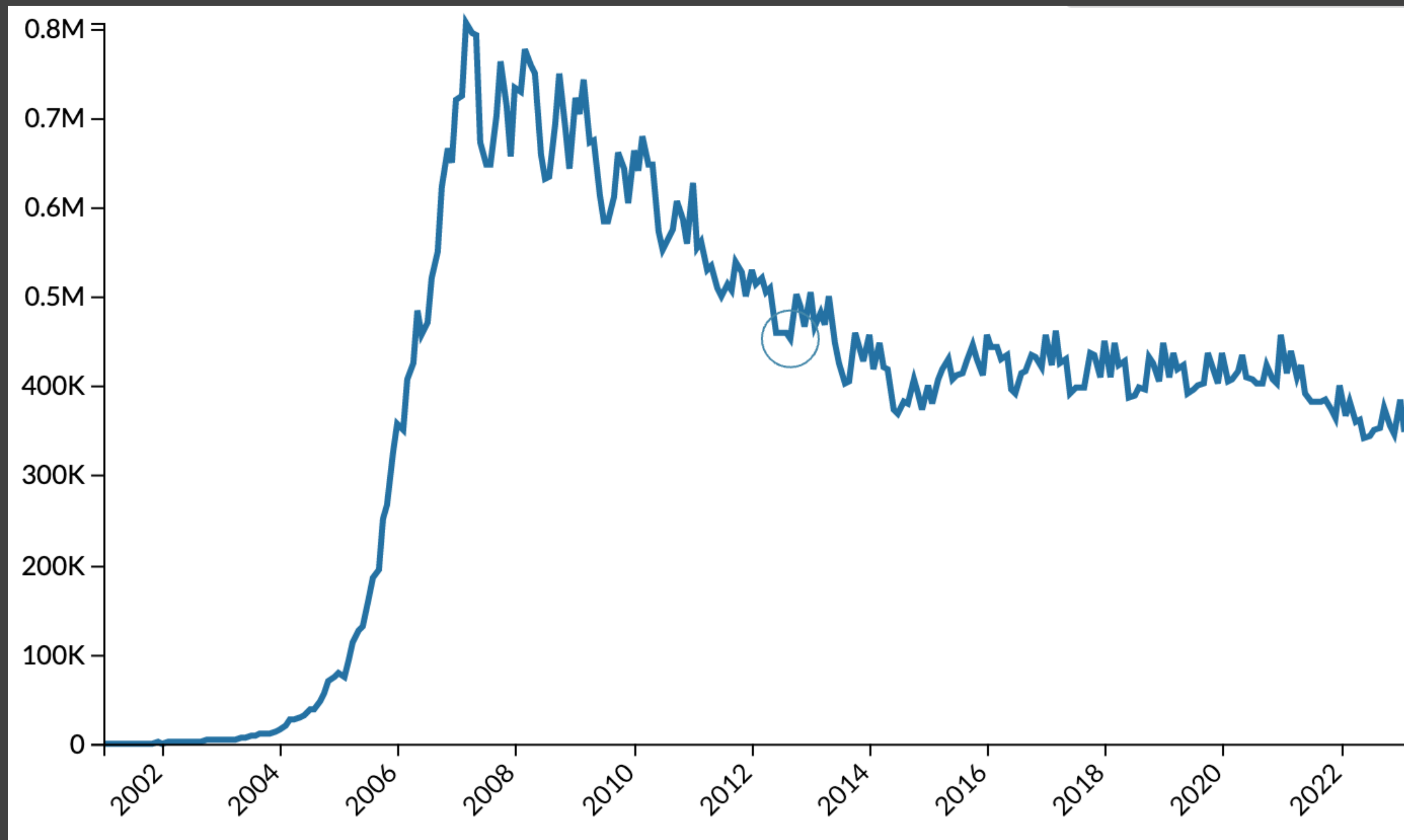
From just a few editors to about 800k active editors each month in just five years

Wikipedia's growth and decline

...but then something changed.

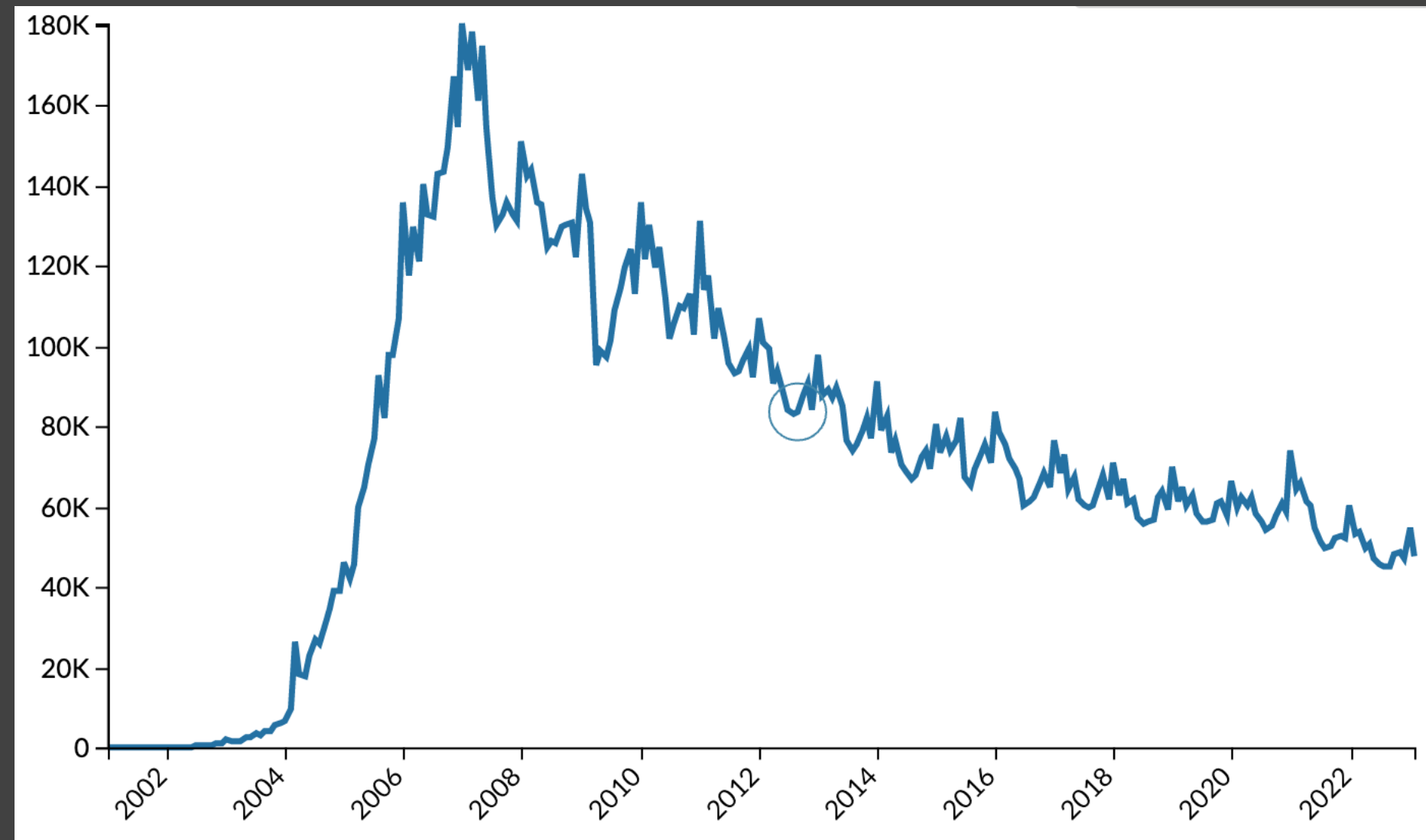


Wikipedia's growth and decline

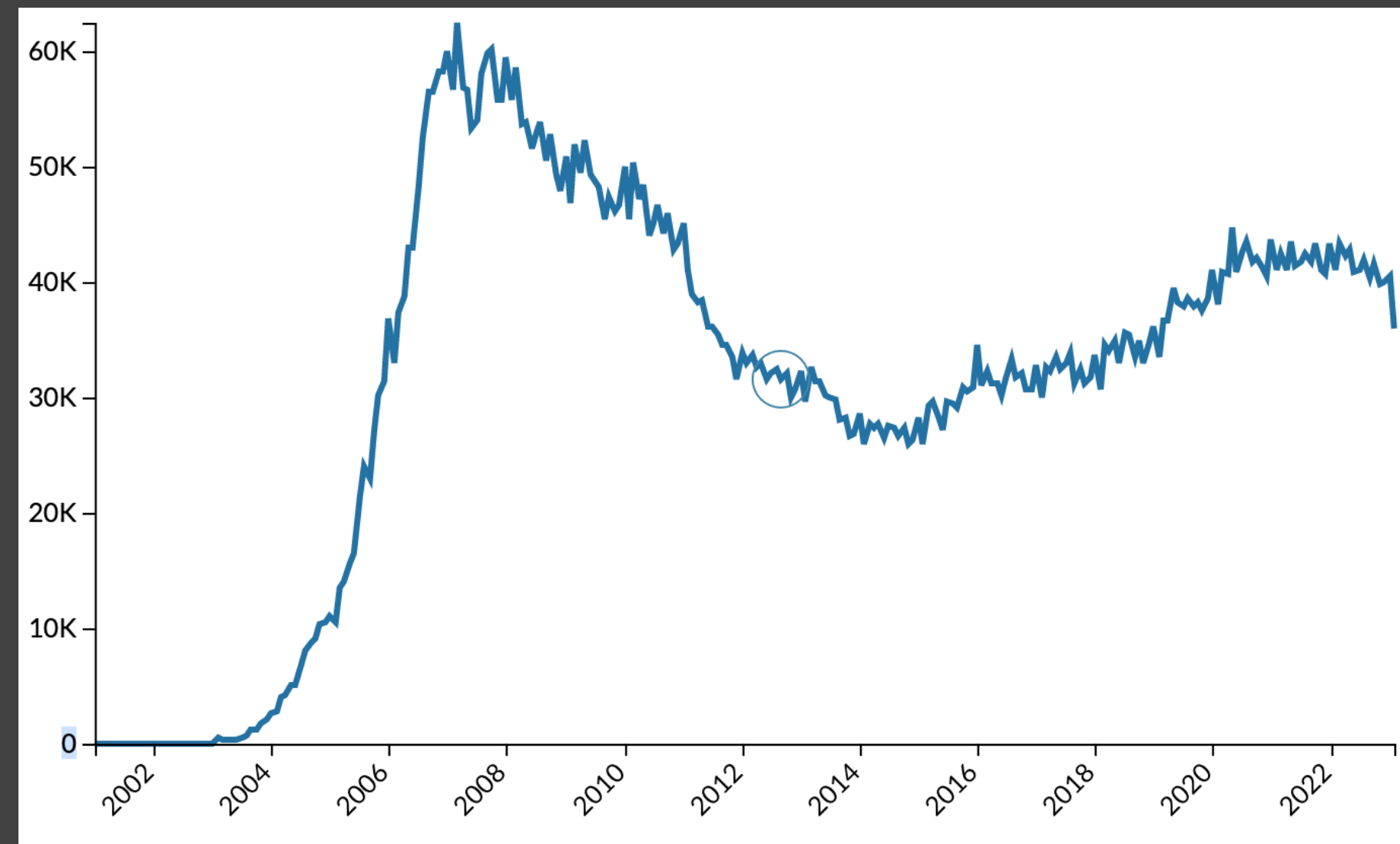


...and has continued to change.

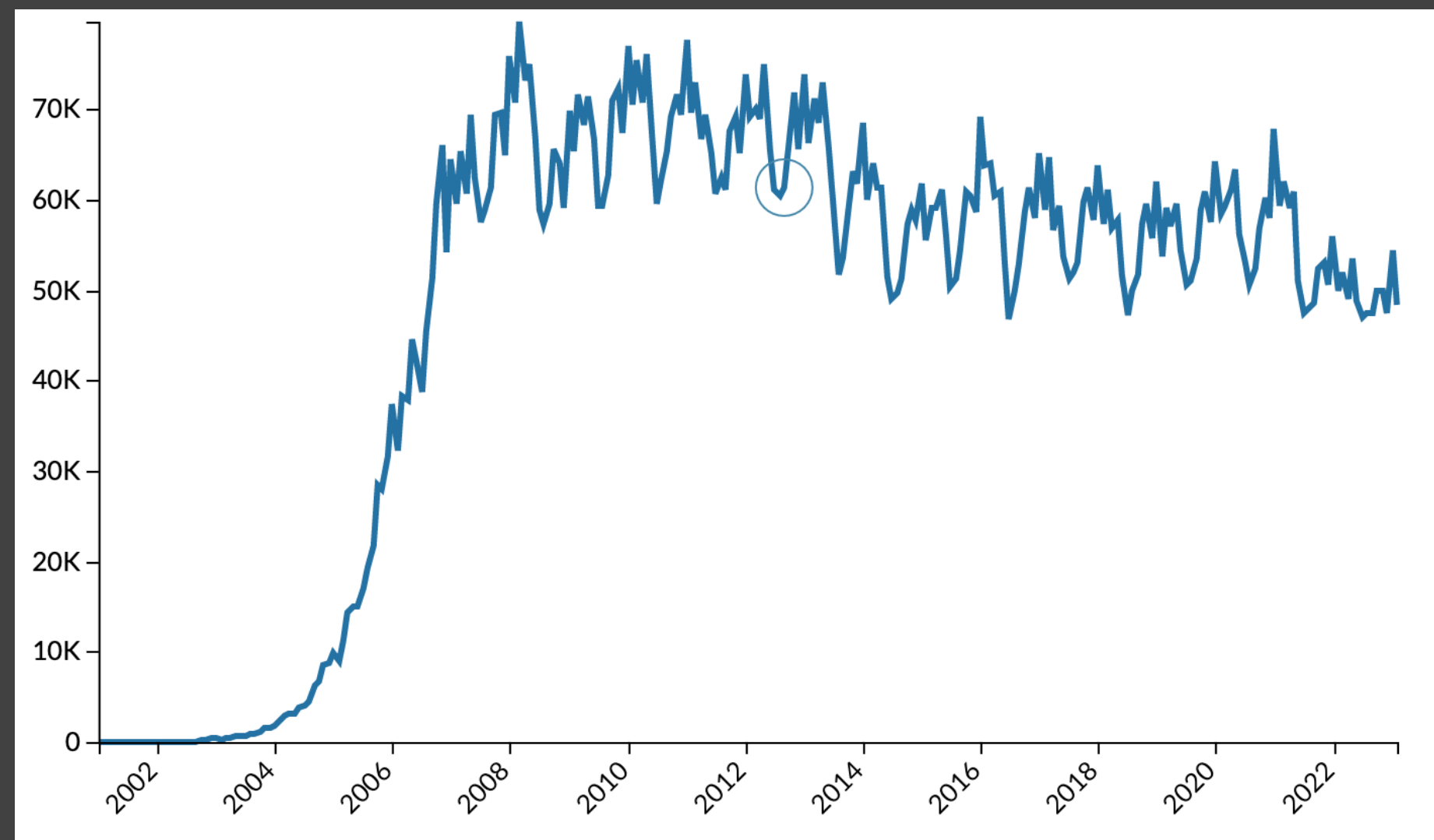
What happened?
[2min]



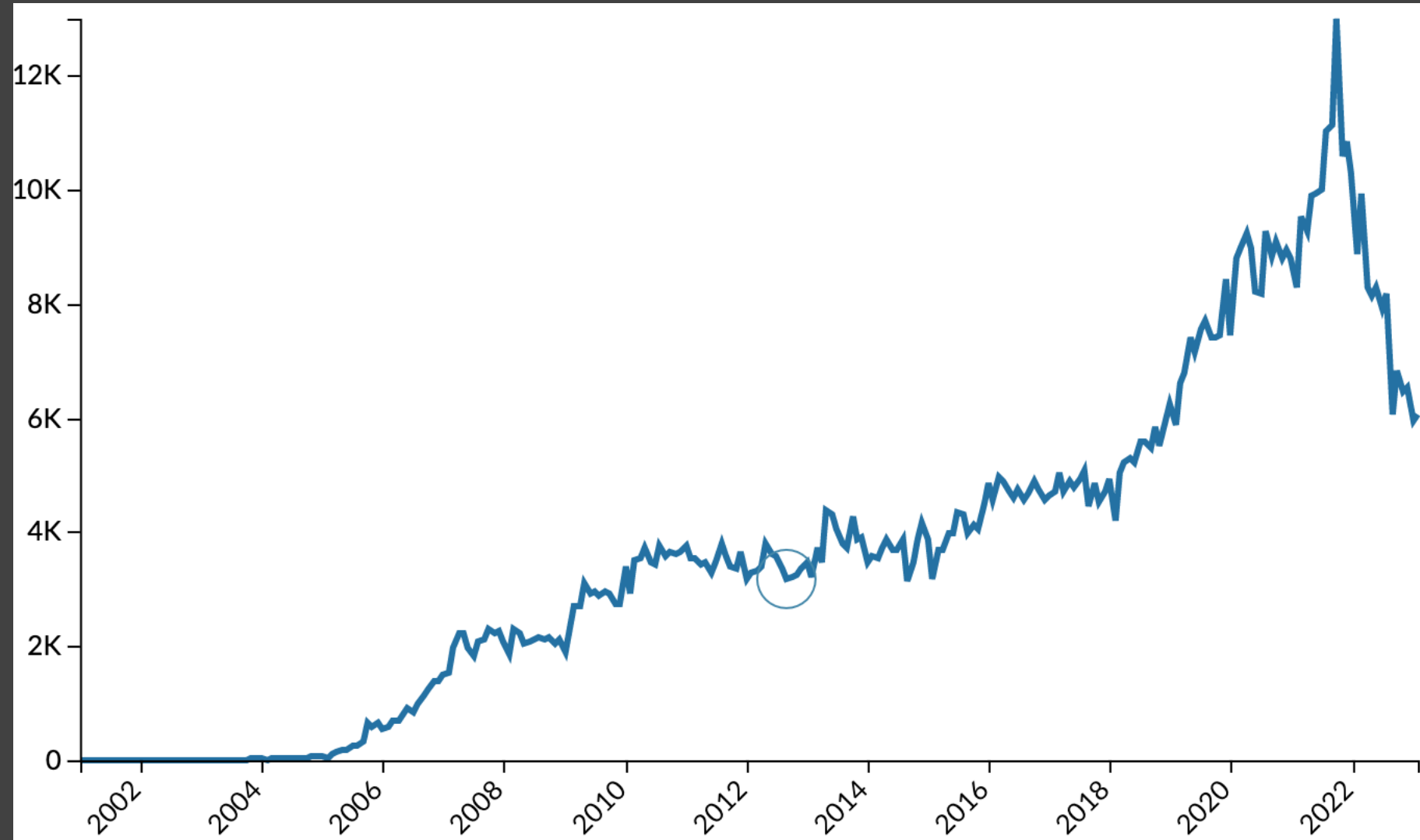
German



Japanese



French

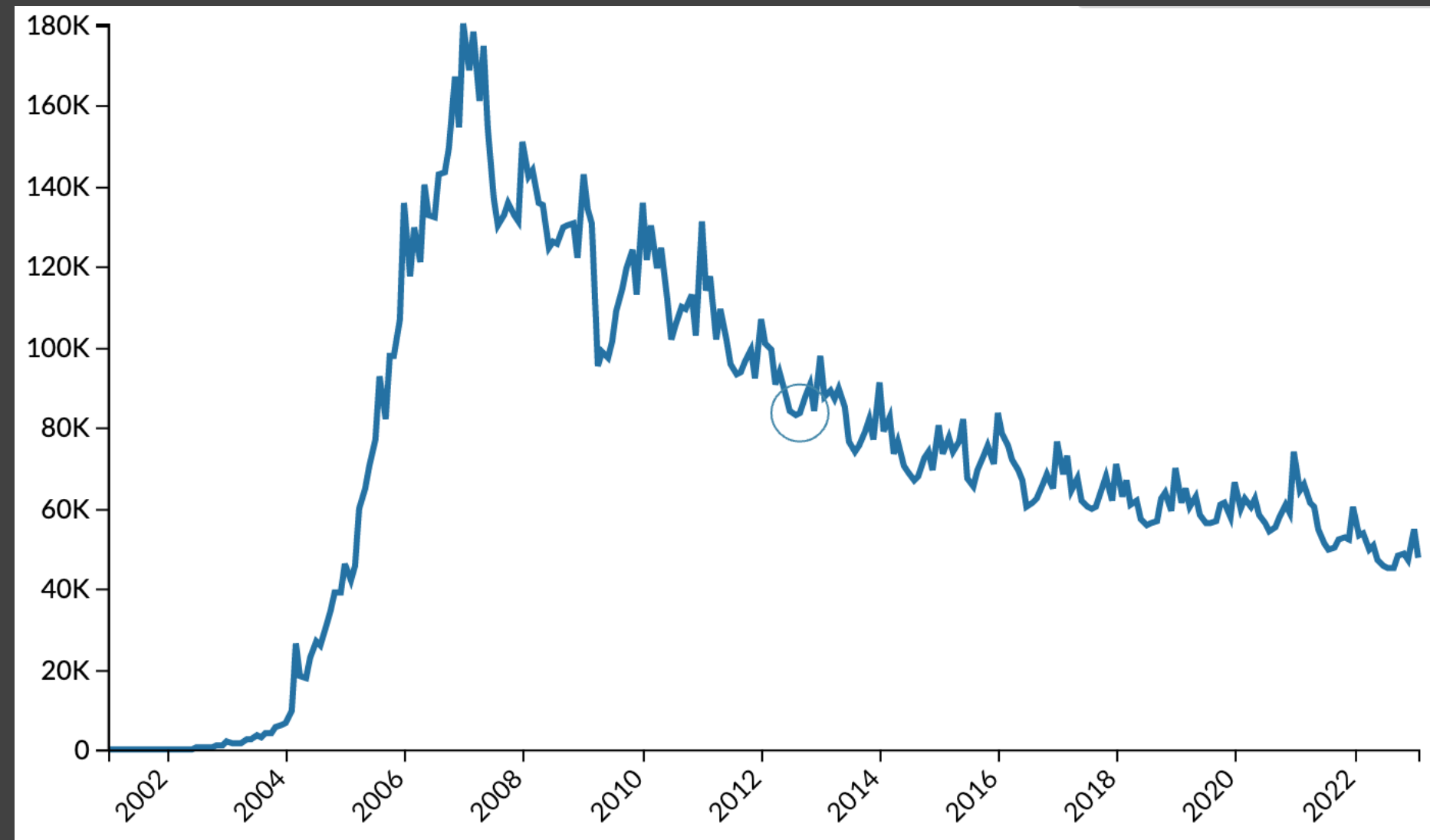


Vietnamese

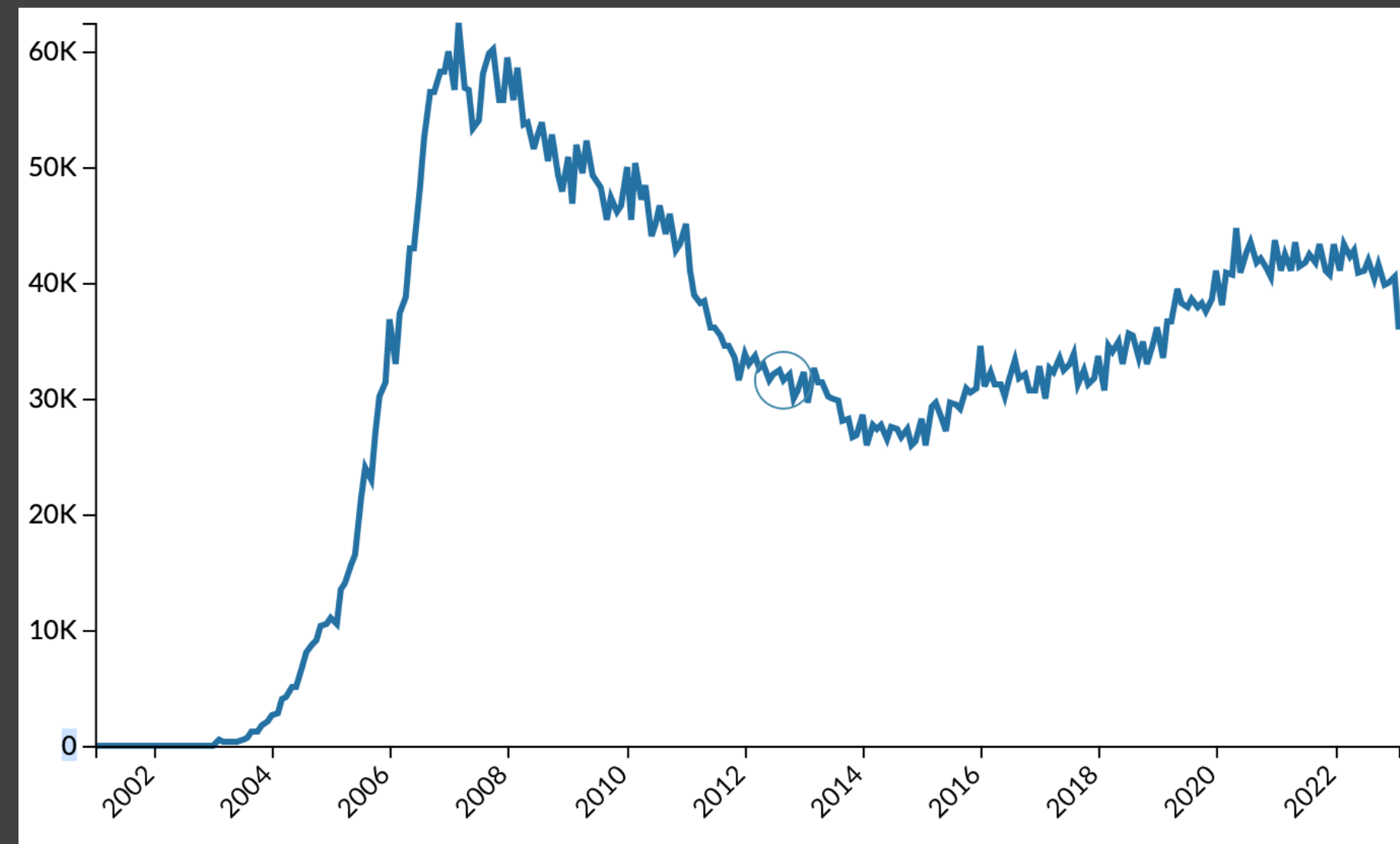
Non-English
Wikipedias:
same pattern.

They're all
different sizes,
so it's not that
they ran out of
articles.

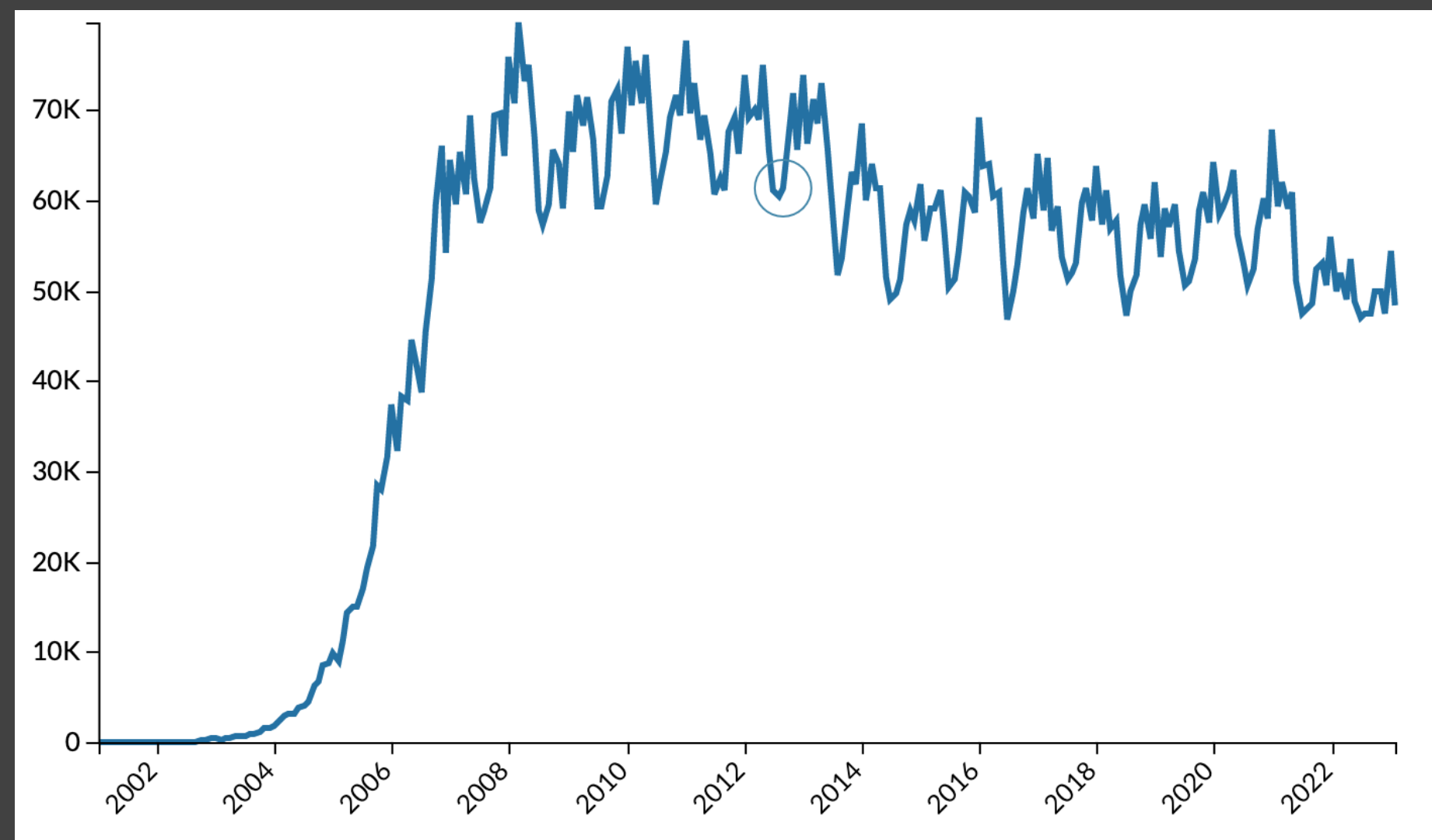
The peak hit at
different dates,
so it's not
exogenous.



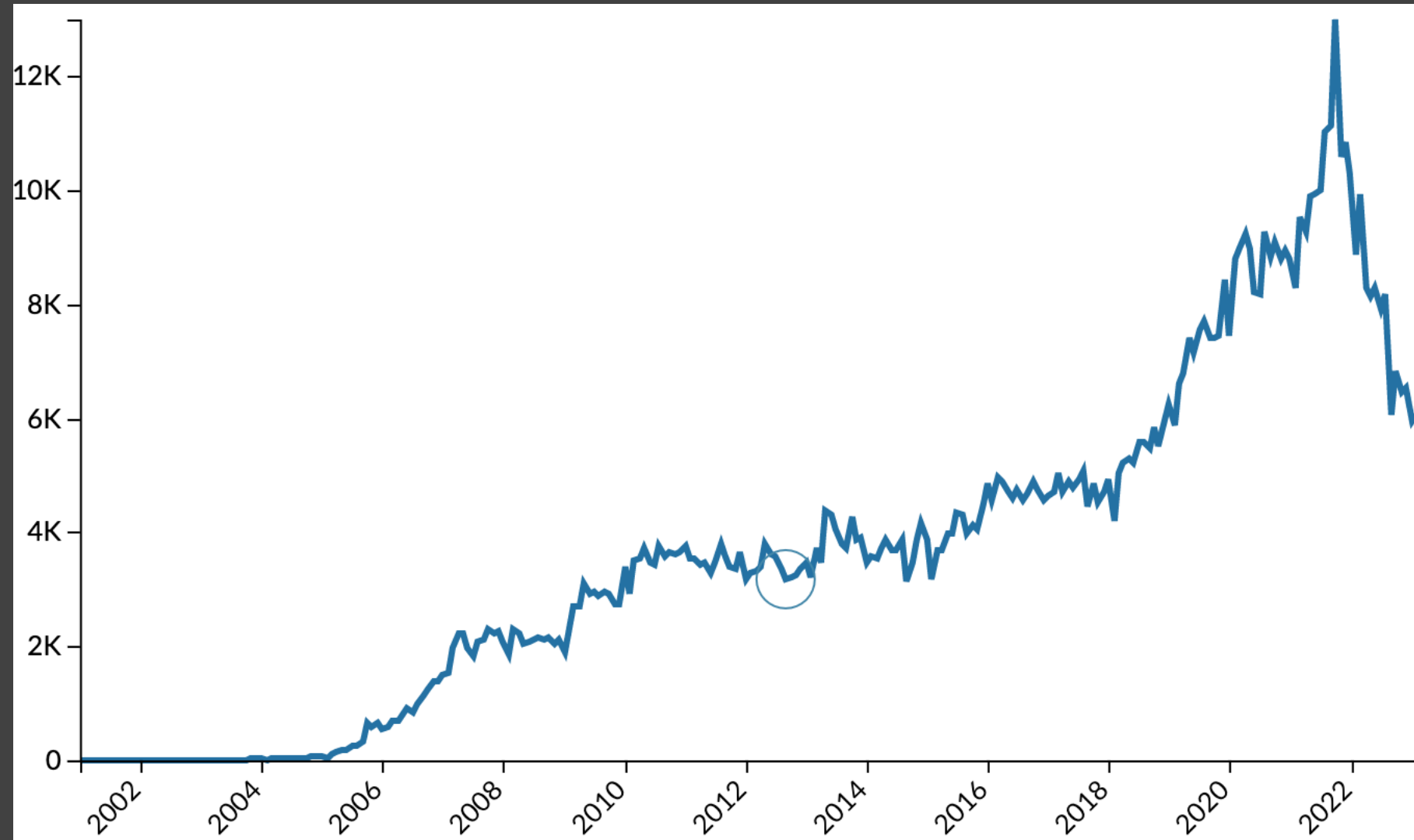
German



Japanese



French



Vietnamese

So if it's not because they ran out of content, and it's not because they ran out of people...

What happened?



Posted by u/webstackbuilder 2 months ago 🤝 🏆 🐼 🍵 🏠 🌞



2.5k

Saying Goodbye To Stack Overflow.



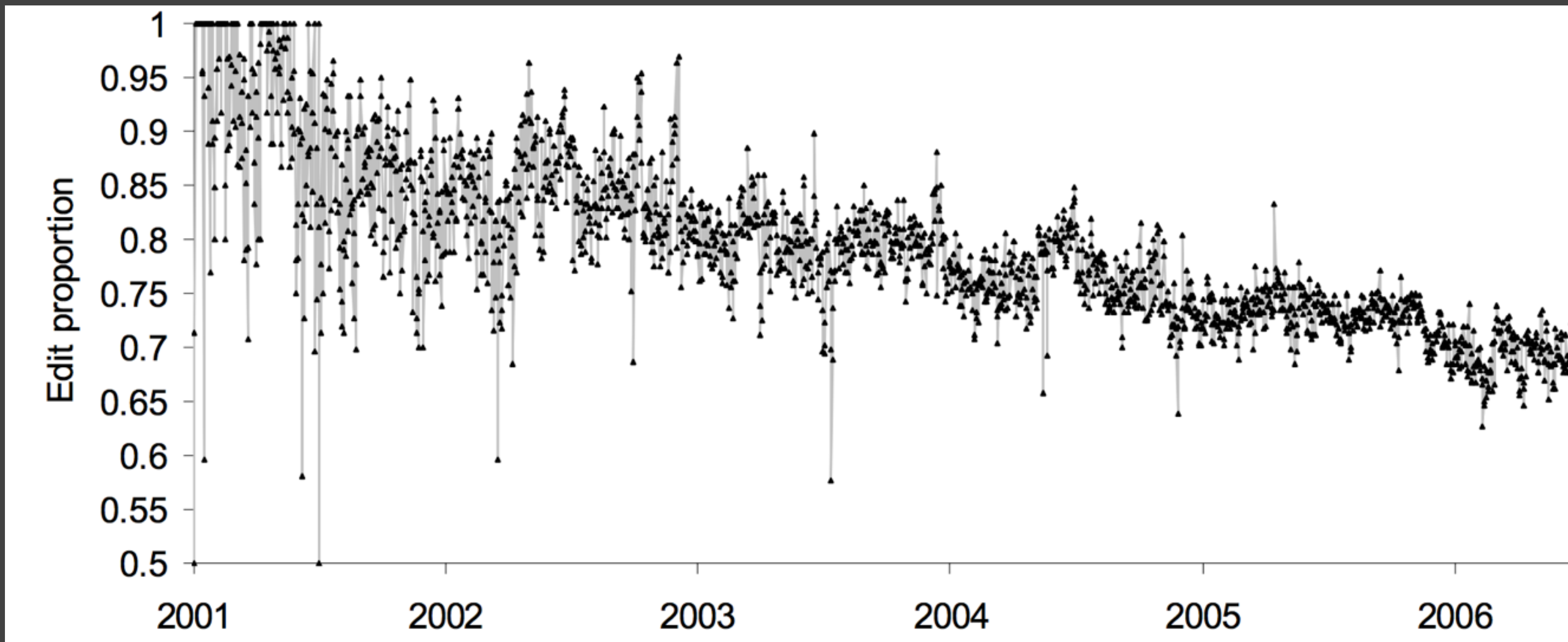
I've had a registered account on Stack Overflow for six years. I have about ten years total experience in IT. I have followed a few tags on SO to answer questions in some very narrow areas I have particular knowledge which might be helpful to others. I have also asked a question on average every three months, for a total of twenty-five questions over the time I've been registered at SO.

⋮

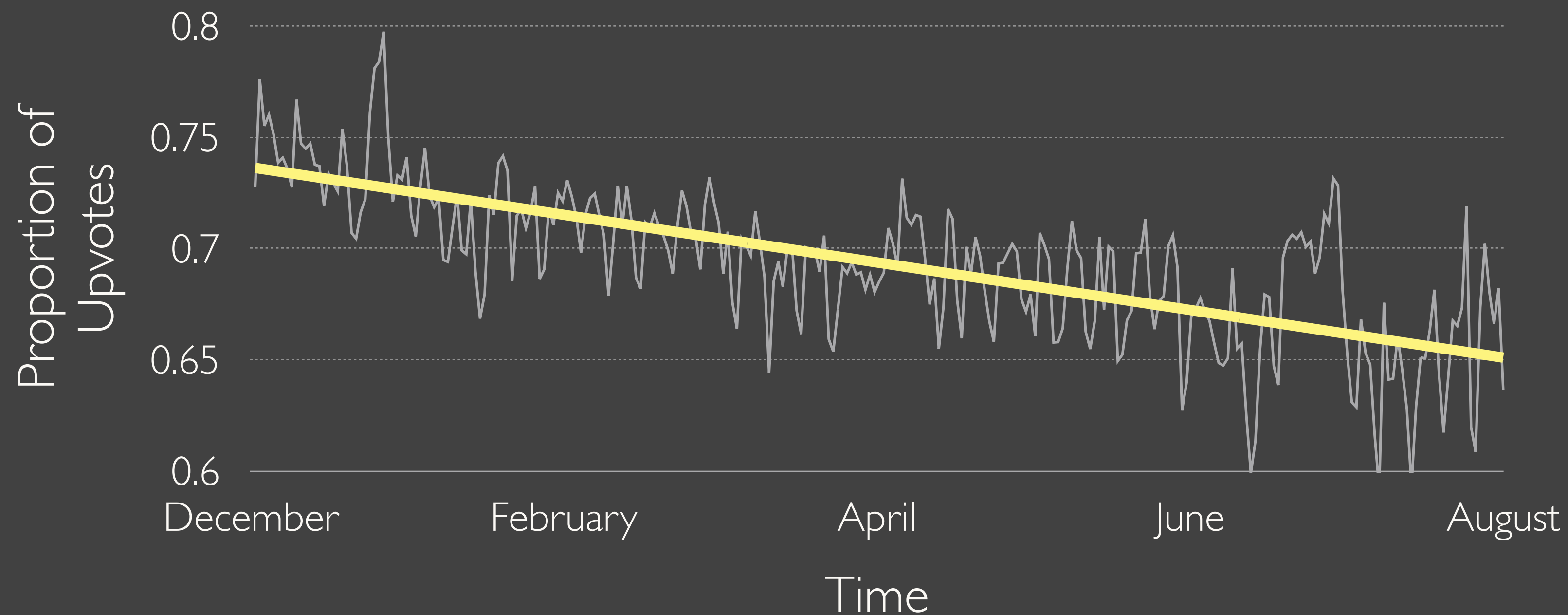
I get that moderators are barraged with low quality questions on SO, but if it's been years since someone's been able to ask a relevant question in spite of being very careful about it, the site is probably useless for most people (and slowly losing utility in a flaming dumpster fire).

I've shown questions to other developers that I've had closed and asked if they thought my question was wrong. At the time, I thought it was me and wanted to fix *my* problem. In every case the feedback was *"That's really stupid they closed your question, it's a good one. I'd like to know the answer too. F#ck SO!"*

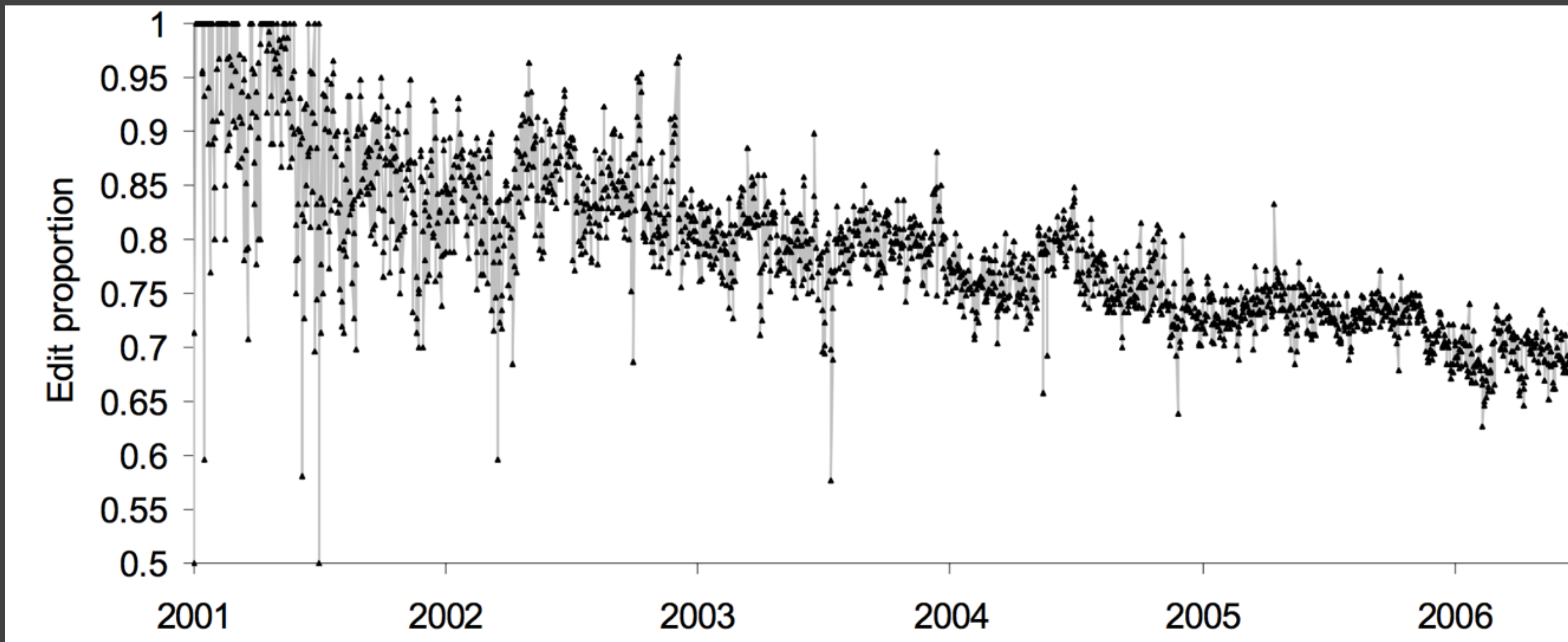
Indeed. Stack Overflow is a toxic cesspool that is utterly useless outside of historical answers. That



Less and less of the editing is on the pages themselves; more and more in the discussion pages. [Kittur et al. 2007]

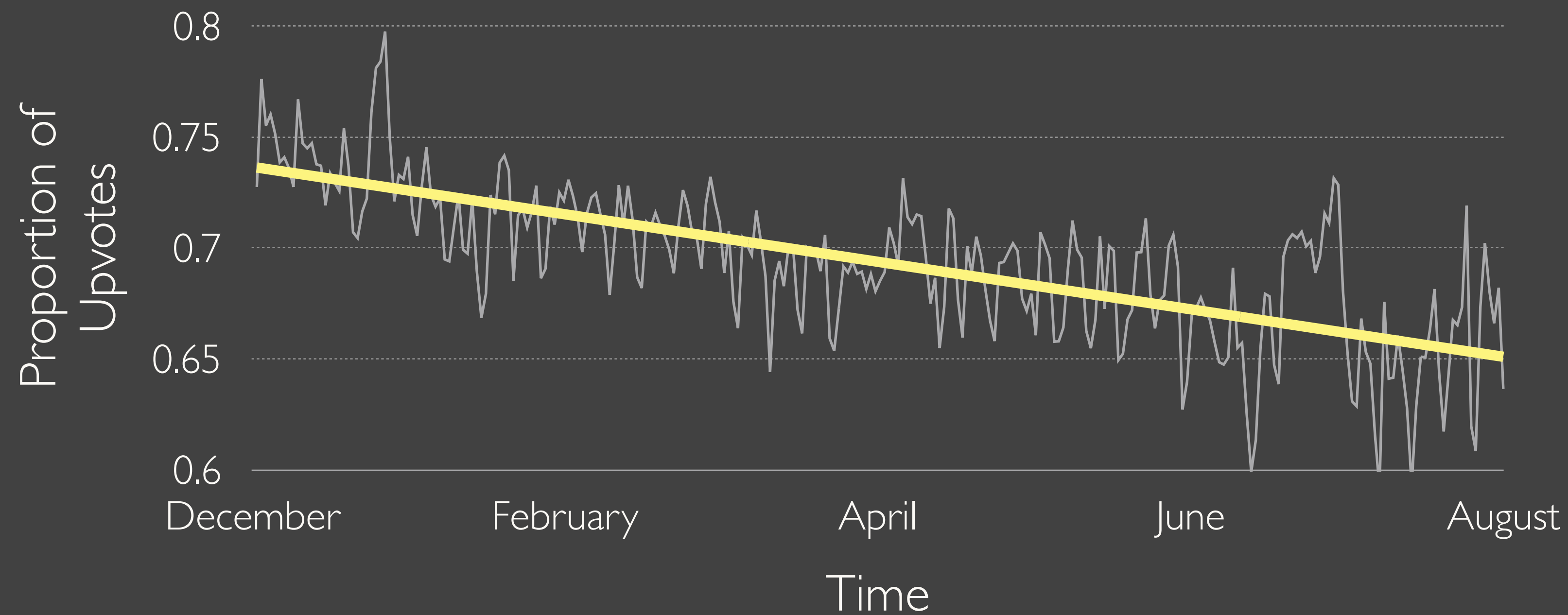


On CNN.com, the community is becoming more and more downvote-oriented over time [Cheng et al. 2017]



Do communities get worse as they grow?

Is this decline inevitable?



Today: the challenge of growth

What changes about the dynamics of social computing systems as they grow?

What do you need to change, as a designer or community organizer, to keep a social computing system vibrant as it grows?

Topics today:

- What changes make maintaining a positive platform more challenging as it grows?

- What design techniques help manage those changes?

**What changes about a
socio-technical system
as it grows?**

Tempting POV: designs that scale

Use moderators, upvoting, report links, and algorithms to build a design that scales from 1,000 people to 1B people

In other words, your design should not need changes as your system becomes more popular

Why that POV fails

It's not just the design that needs to scale, it's also the **norms**

Recall that these are socio-technical systems, so the design itself is not enough to guarantee the same experience at 1K, 1M, and 1B

The community leaders that established and enforced norms will no longer be visible to the vast majority of users

What happened?



Harvard
undergraduates

What happened?



Anyone with a
college email address

What happened?



International

What happened?





What started out narrow,
necessarily broadened. New members
mean new norms, culture and contestation.

Myanmar military



**What changes about a
socio-technical system
as it grows?**


Broader participation exposes cultural rifts

VICE Watch Politics LGBTQ Drugs Opinion Photos Magazine   Vice Channels

Why Are Trans People Being Banned from Tinder?

The dating app won't really explain why it keeps happening.

SHARE  TWEET 



Asset sources: Wikipedia Commons and provided photos



Tall-yuh 
@Tahlia_Rene 

Still waiting on @Tinder to unban me since i got banned after being reported for being trans. So much for “trans friendly.” Yalls 30 gender options don’t mean shit when trans people still get banned automatically because of how often cis straight men report us

 30 5:54 PM - Dec 2, 2017 

As trans users start joining Tinder, cis straight men start reporting female-identifying trans women, resulting in auto bans

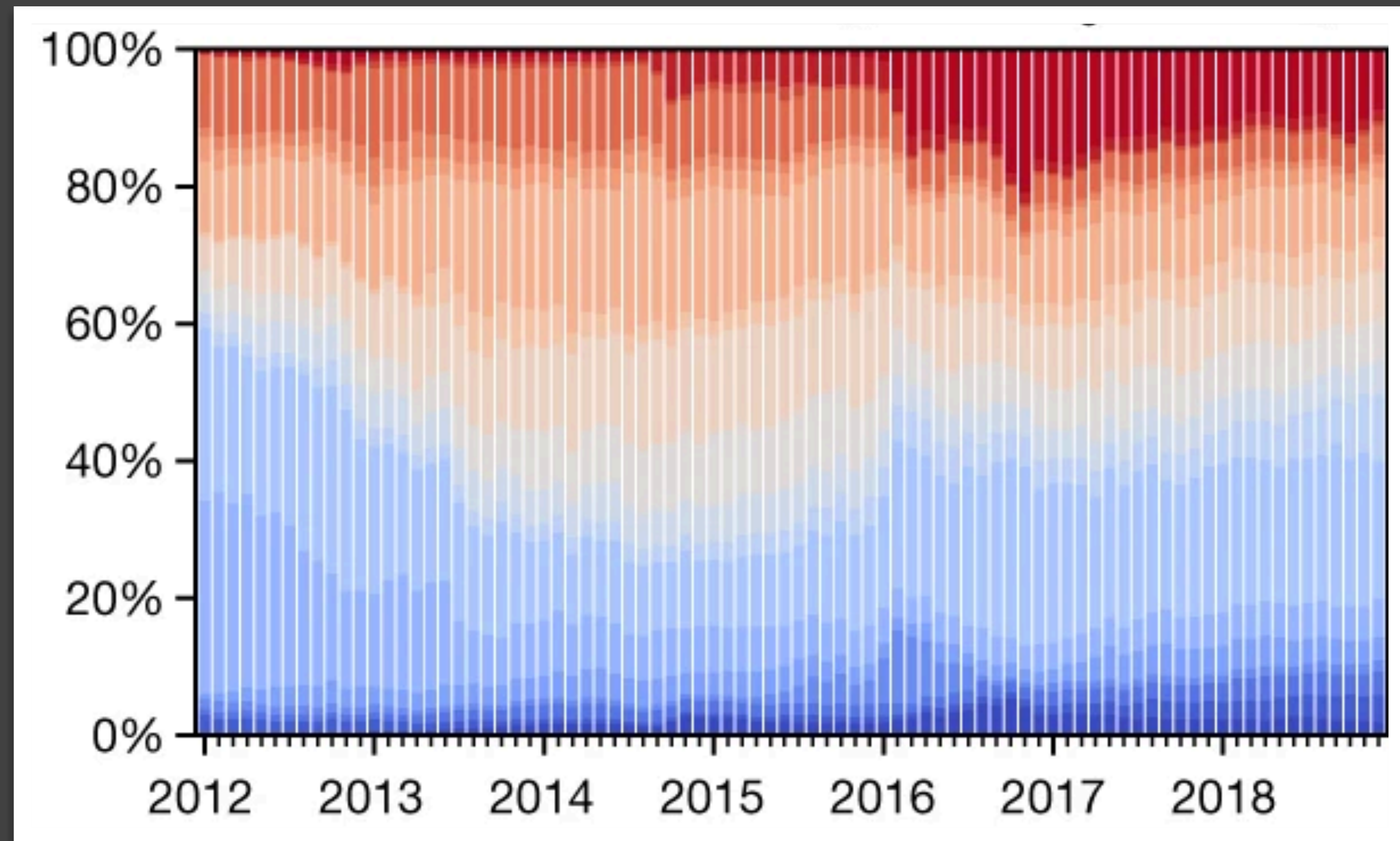
Broader participation exposes cultural rifts



Reddit heavily polarized
around the 2016 election

However, this was not due
to individuals polarizing: it
was due to a large influx of
far-right participants

[Waller and Anderson
2021]



What changes about a socio-technical system as it grows?

- 1) Broader participation exposes cultural rifts

Popularity challenges authenticity

[Verhaal and Dobrev 2022]

Authenticity is attached to intrinsic rather than extrinsic motivation

So, as popularity increases, it becomes harder for the platform and members to profess intrinsic motivation and disinterestedness in economic performance



<https://www.tiktok.com/@hankgreen1/video/7219875756162223365>

What changes about a socio-technical system as it grows?

- 1) Broader participation exposes cultural rifts
- 2) Popularity challenges authenticity

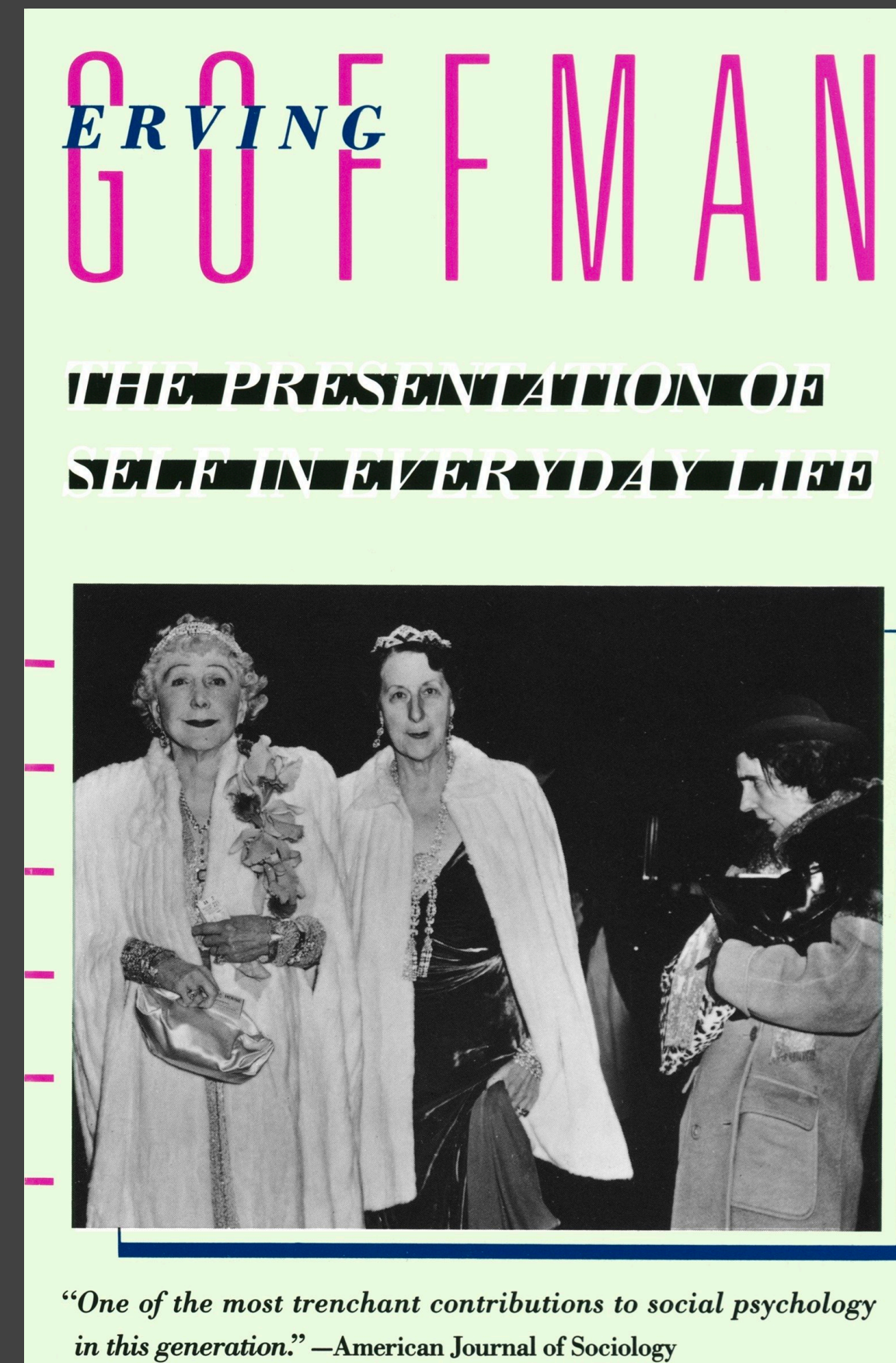
Growth leads to **context collapse**

Recall: we perform different versions of ourselves to different audiences

So what happens when these audiences all start populating the same space?

Context collapse: when separate audiences coalesce into **one**, making it difficult to navigate the space

“i wouldn’t tweet anything i didn’t want my mother/ employer/professor to see” [Marwick and boyd 2010]



Growth leads to **context** **collapse**



Common Sense Media
Movie & TV reviews for parents

How can I monitor my kid's activity on Instagram?

The app announced that in December 2022, it would be rolling out new parental controls in the U.S., and then globally. Currently, if both parties opt in to the Family Center feature, adults can get updates about who their 13- to 17-year-old kids follow and are followed by, receive notifications if their child reports other users, and set usage limits by day or for specific times of day. They can also view their child's privacy, messaging, and sensitive content settings and get an update if their child changes any of them.

You can also ask your kid to give you a tour of their Instagram account. Ask them to walk you through their account, explain memes and comments, discuss friends, and share whatever comes up. Or try one of these ideas:

- **Create your own Instagram account and follow your kid.** You'll see what they post (unless they block you), but you won't see their DMs (direct messages).
- **Follow their friends.** It's not unusual for parents and caregivers to be friends with their kids' friends online (but you should hold back on comments). If you're close with your kids' friends, you can follow each other and keep tabs on your kid's doings.

What changes about a socio-technical system as it grows?

- 1) Broader participation exposes cultural rifts
- 2) Popularity challenges authenticity
- 3) Context collapse

Growth leads to rare events

Suppose that just 0.1% of the population were highly aggressive online trolls

When your community is 100 people, you'd be unlucky to get one

When your community is 1000 people, you can block the bad guy

When your community is 100000 people, they can organize and dominate

What changes about a socio-technical system as it grows?

- 1) Broader participation exposes cultural rifts
- 2) Popularity challenges authenticity
- 3) Context collapse
- 4) More rare events

Newcomers challenge norms

New members of the system are typically more energetic than existing members and also interested in a broader range of discussion than the community's current focus [Jeffries et al. 2005]

Newcomers have not been enculturated: they don't know the norms of the system, so they are more likely to breach them [Kraut, Burke, and Riedl 2012]

...and, there are a lot of newcomers, with more constantly joining, exhausting the resources of the existing members.

What changes about a socio-technical system as it grows?

- 1) Broader participation exposes cultural rifts
- 2) Popularity challenges authenticity
- 3) Context collapse
- 4) More rare events
- 5) Newcomers challenge norms

Result: Eternal September

Eternal September: the permanent destruction of a community's norms due to an influx of newcomers

Usenet, the internet's original discussion forum, would see an influx of norm-breaking newcomers each September as college freshmen arrived on campus and got their first access to the internet.

In September 1993, America Online gave its users access to Usenet, flooding it with so many newcomers that it never recovered. It was the September that never ended: the Eternal September.

Have you ever read: "This was so much better when it was smaller"?

TECH / APPS / TWITTER

Bluesky is my favorite Twitter clone yet

Right now, the small community is delightful to be a part of. And thanks to the AT Protocol, the service has a promising future.

By **JAY PETERS**

Apr 15, 2023, 6:30 AM PDT

71 Comments / 71 New

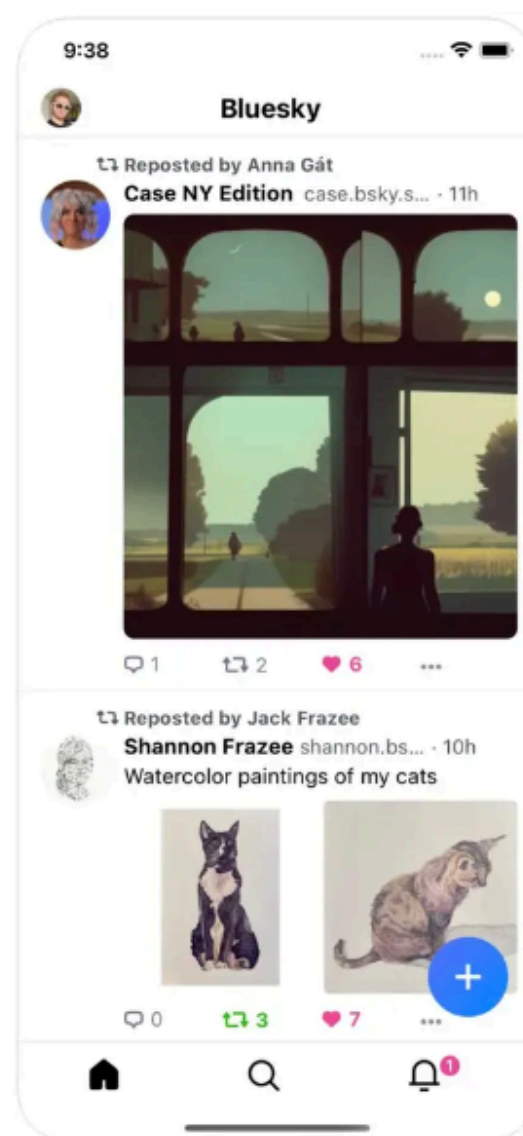
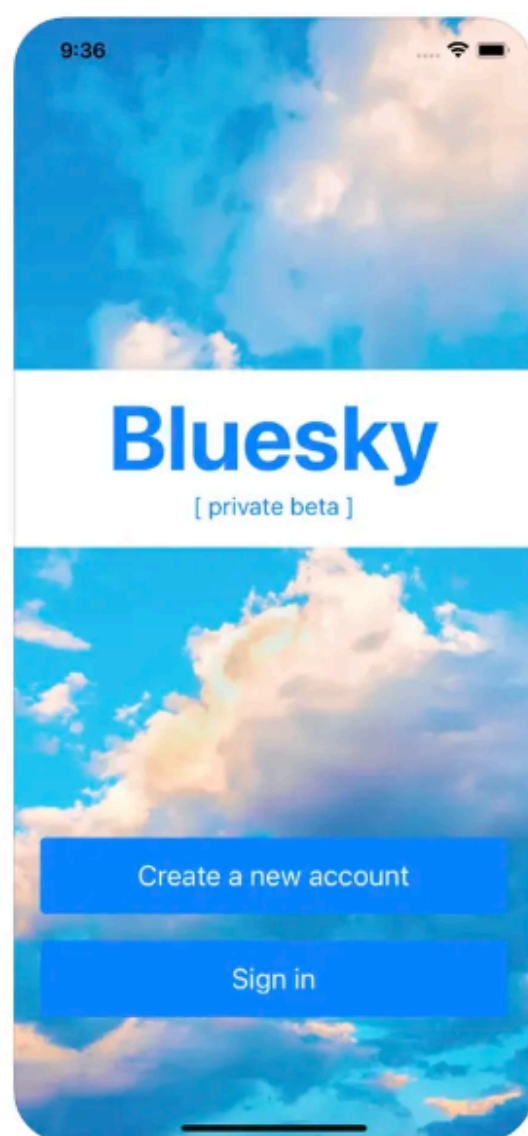


Image: Bluesky

The challenge for Bluesky will be maintaining its positive environment, and that's just what things its federated system — the AT Protocol — is designed to do. The protocol is still in development, but Bluesky's stated focuses for it are decentralized social networking, algorithmic choice, and portable accounts. That means that, maybe someday, I'll

To me, Bluesky currently feels like a simpler time on the internet. It's a feeds-based social network with a community of at least 20,000 people, meaning there's a lot of activity and conversation, but so far, I haven't seen much toxicity or people racing to slam dunk people in quote tweets. It feels like a platform where people are just hanging out and chatting with each other.

What would Bluesky need to do to maintain this set of norms?

one month later



Subscribe

NEWS

Are Bluesky Social's Good Vibes Doomed?

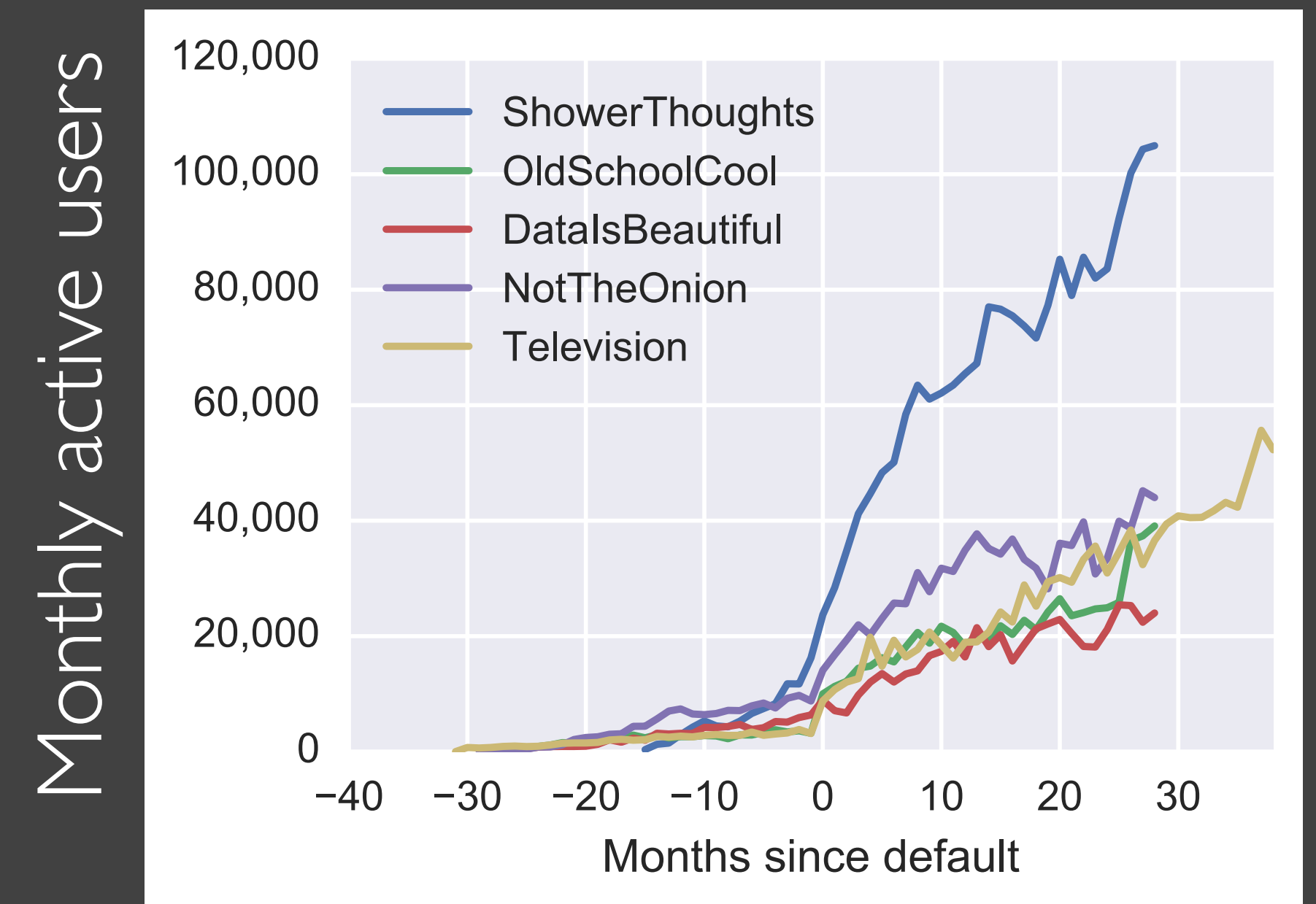
As Elon Musk's Twitter continues to turn off users, the

**Surviving massive
growth**

Surviving an Eternal September

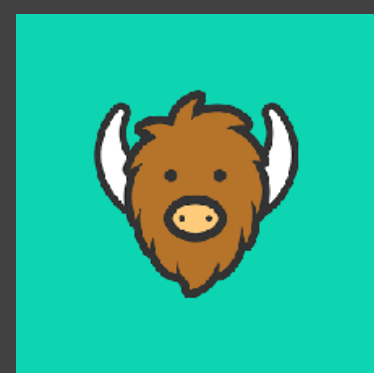
What allows a community to stay vibrant following a massive surge in user growth?

Classic case: small subreddits getting defaulted — added to the default set for new Reddit users



Surviving an Eternal September

Successful cases tend to have **strong moderation** [Kiene, Monroy-Hernandez, and Hill 2016; Lin et al. 2017]



Imploded due to lack of moderation



(moderated)



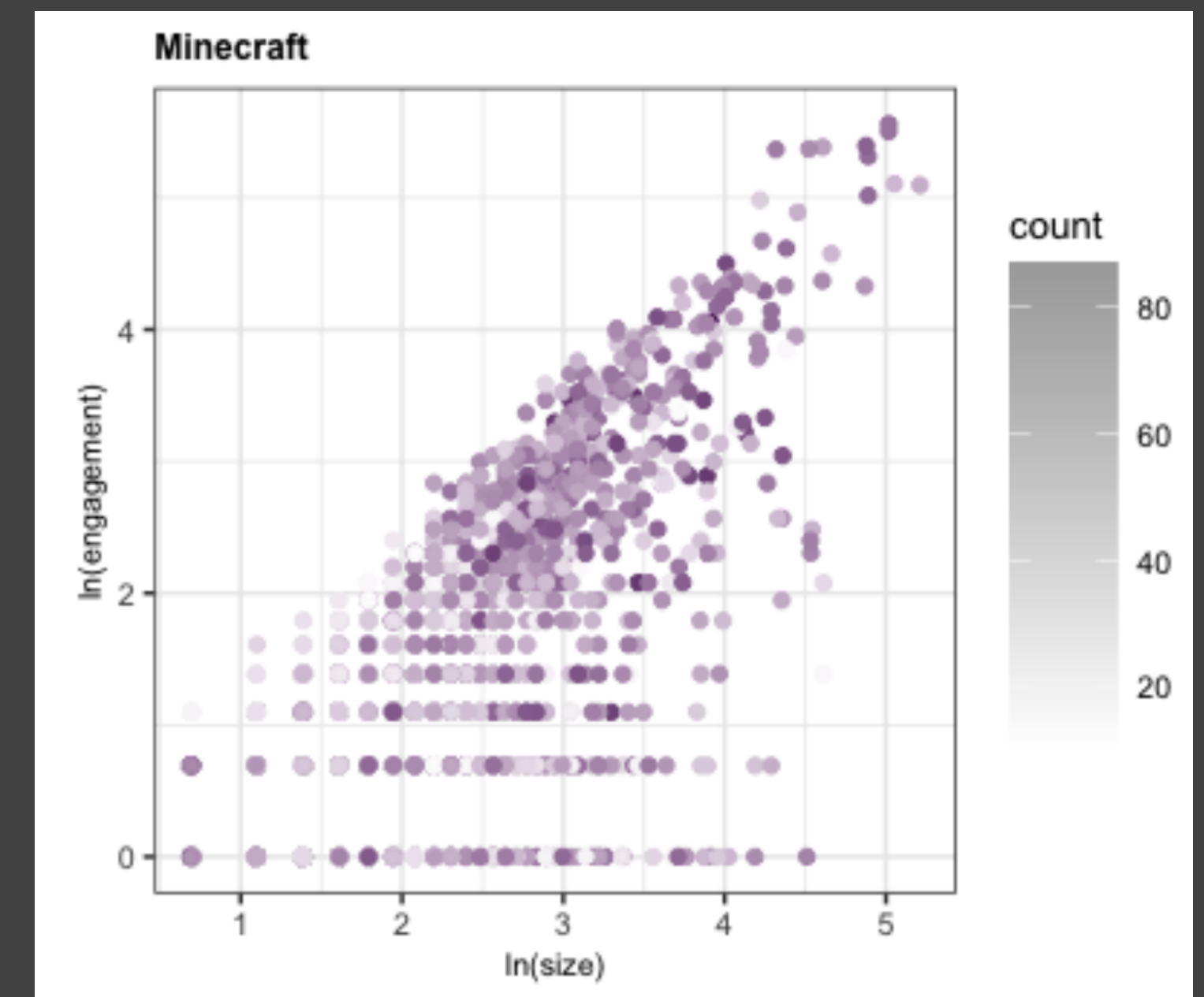
Governance arises [Frey et al. 2022]

Across platforms such as Minecraft, World of Warcraft, and Reddit, the size and complexity of a community's governance is positively associated with the community's size

(Darker dots are generally in the upper right corner)

Implicit rules when there are no rules:

1. No formal positions exist
2. Anyone can enter
3. Everyone can take every possible action
4. Members act independently



Rules rule [Fiesler et al. 2018]

Adding rules may not be the most exciting design decision, but they become increasingly necessary as you grow

As an online community becomes more popular, the more statistically likely it is to have publicly posted rules

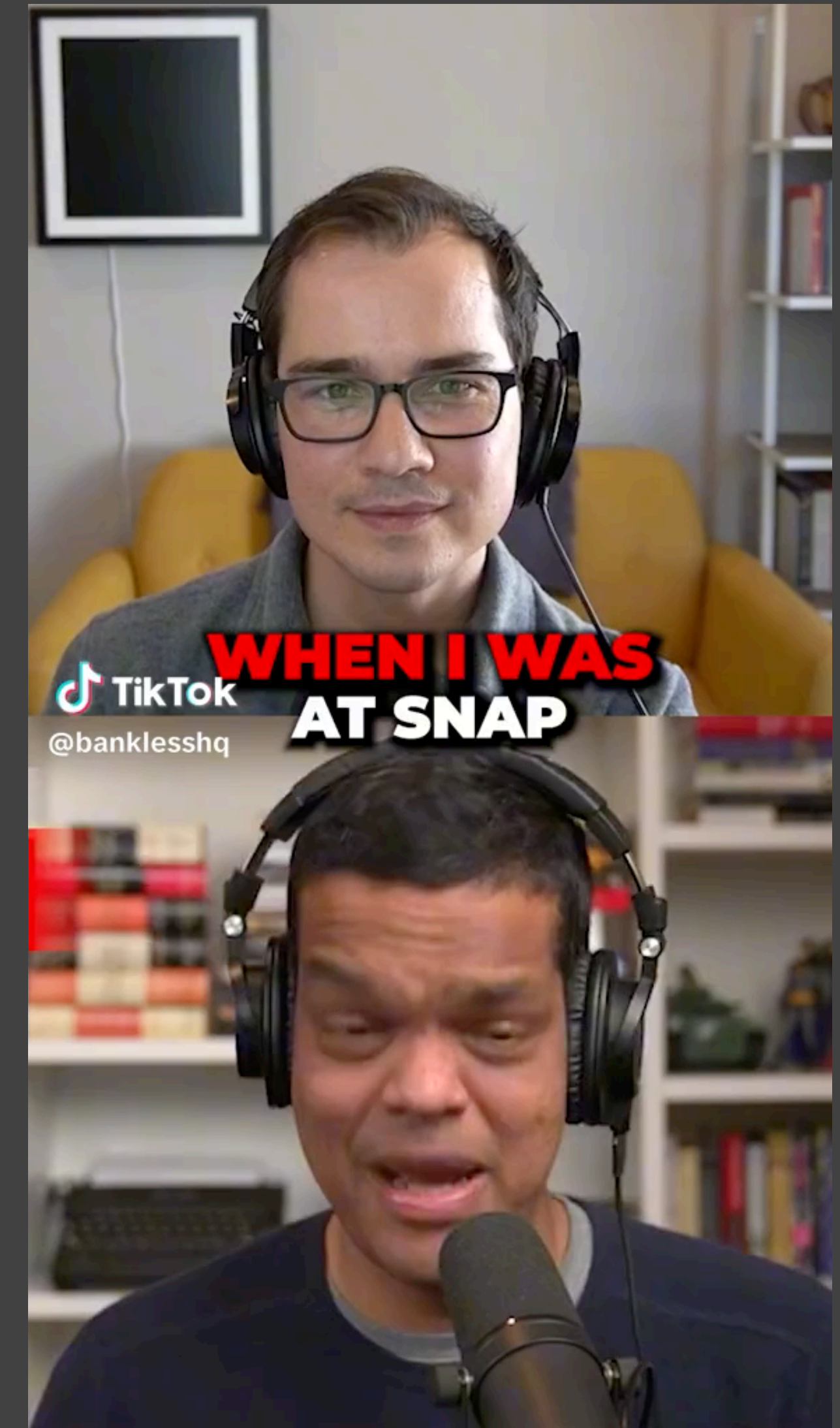
The vast majority of these rules are restrictive (e.g., don't harass people, don't spam, don't use hate speech) and focused on content

r/science Rules	
1. Must be peer-reviewed research	▼
2. No summaries of summaries, rehosts, or reposts	▼
3. No editorialized, sensationalized, or biased titles	▼
4. Research must be less than 6 months old	▼
5. No off-topic comments, memes, low-effort comments or jokes	▼
6. No abusive or offensive comments	▼
7. Non-professional personal anecdotes will be removed	▼
8. Criticism of published work should assume basic competence of the researchers and reviewers	▼

Resisting growth

One approach is to try to shape the growth or stay small [Hwang and Foote 2021], to signal clearly who the space is for: “This is Disneyland, not Six Flags”.

Example: Snapchat →

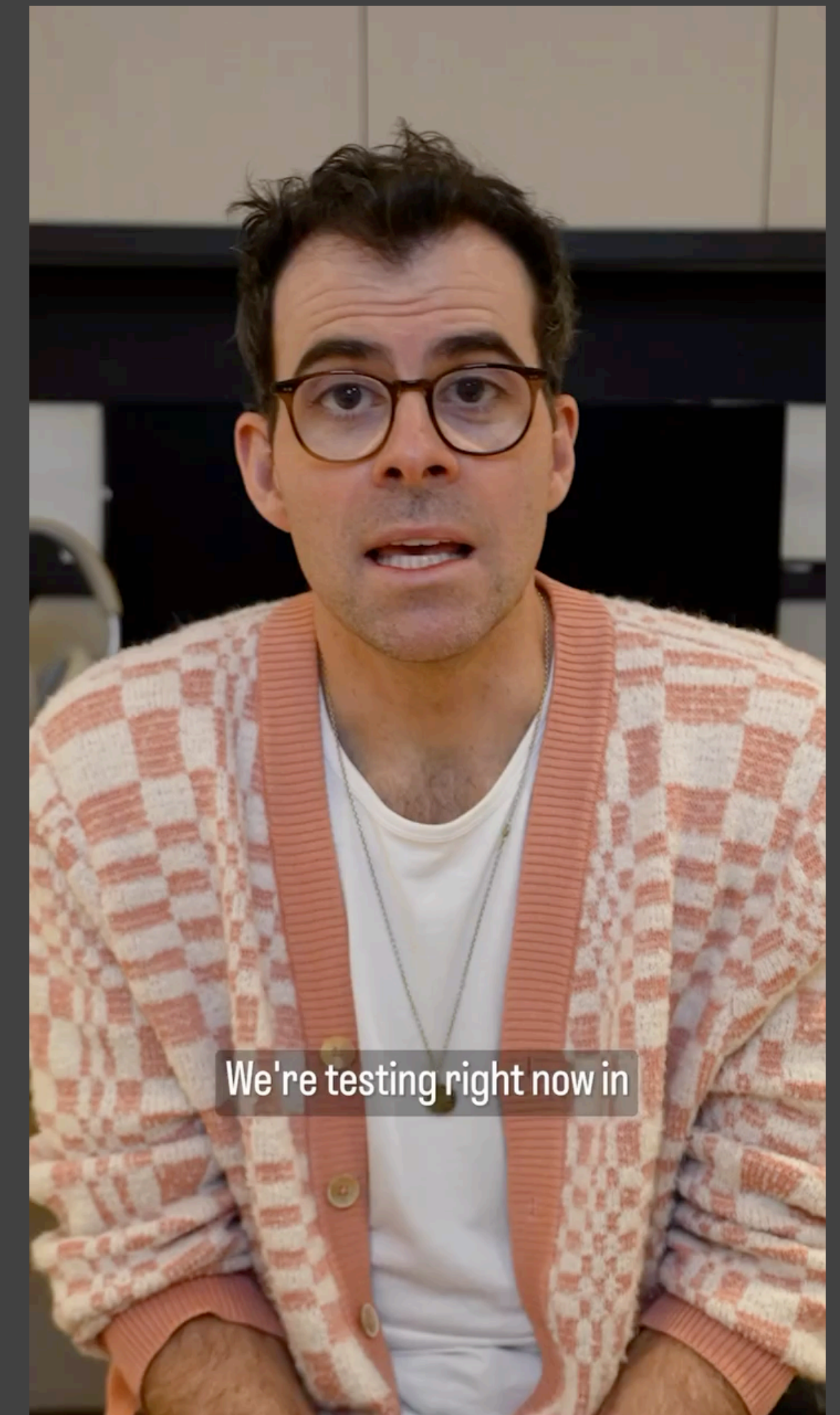


How do you test new ideas?

How do you A/B test new ideas, when there's no easy way to bucket people into group A or B? Everyone's connected...

The most common answer is **country comparisons**, where versions are launched to different countries that have similar properties.

e.g., launch one version in New Zealand and another in Australia



Adam Mosseri, Instagram: https://www.instagram.com/reel/CmKEKWlg_8c/

What we know so far

Challenge

Strategies [2min]

Cultural rifts

?

Challenges to authenticity

?

Context collapse

?

Rare events

?

Newcomers challenge norms

?

What we know so far

Challenge

Cultural rifts

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Governance and rules; moderation

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Unsolvable?

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Strategies

Governance and rules; moderation

Unsolvable?

Create subcommunities

?

?

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Unsolvable?

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Context collapse

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Newcomers challenge norms

Strategies

Governance and rules; moderation

Unsolvable?

Create subcommunities

Governance and rules; moderation

Governance and rules; moderation

The elephant in the room

WIKIPEDIA
The Free Encyclopedia

Enshittification

Article Talk

From Wikipedia, the free encyclopedia

Enshittification is a term coined by writer [Cory Doctorow](#) in November 2022 to describe a pattern of decreasing quality observed in online services and products such as [Amazon](#), [Facebook](#), [Google Search](#), [Twitter](#), [Bandcamp](#), [Reddit](#), [Uber](#) and [Unity](#). The [American Dialect Society](#) selected the term as its 2023 [Word of the Year](#). Doctorow has also used the term ***platform decay*** to describe the same concept.

“Here is how platforms die: first, they are good to their users; then they abuse their users to make things better for their business customers; finally, they abuse those business customers to claw back all the value for themselves. Then, they die. I call this enshittification, and it is a seemingly inevitable consequence arising from the combination of the ease of changing how a platform allocates value, combined with the nature of a ‘two sided market’, where a platform sits between buyers and sellers, hold each hostage to the other, raking off an ever-larger share of the value that passes between them.”

The Verge Menu +

TECH

Social media is doomed to die

After seven years at Snapchat, I finally learned the truth about why our most important apps seem destined to disappoint US.

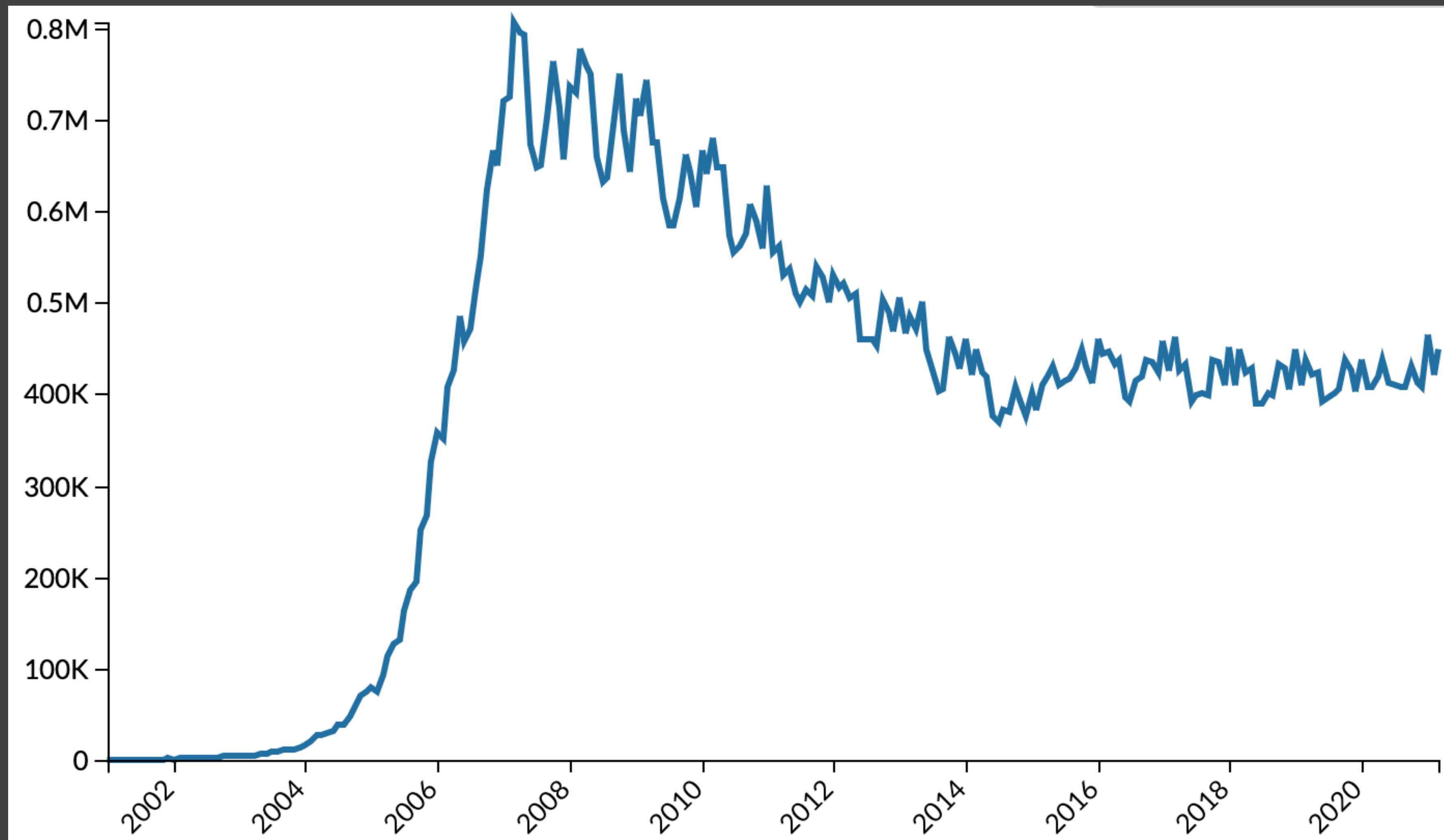
By Ellis Hamburger
Illustrations by Hugo Herrera for The Verge
Apr 18, 2023, 6:00 AM PDT

Unlike most other businesses on Earth that live and die by their customers’ demands, social media services are caught trying to satisfy both their users and the people actually paying for it all: investors and advertisers.

The needs of these groups are dramatically different. Users want what the platform was *originally* for — be it ephemeral messaging, sharing photos, or otherwise. Surprising, energized spaces to connect with friends in a new way. But these use cases inevitably have a limit. You can only post so many photos. You only have so many friends to message. And for investors and advertisers, that’s a problem. So each social network has to find ways to make you send *another* photo, or it has to deploy a brand-new feature and encourage you

Back to the beginning

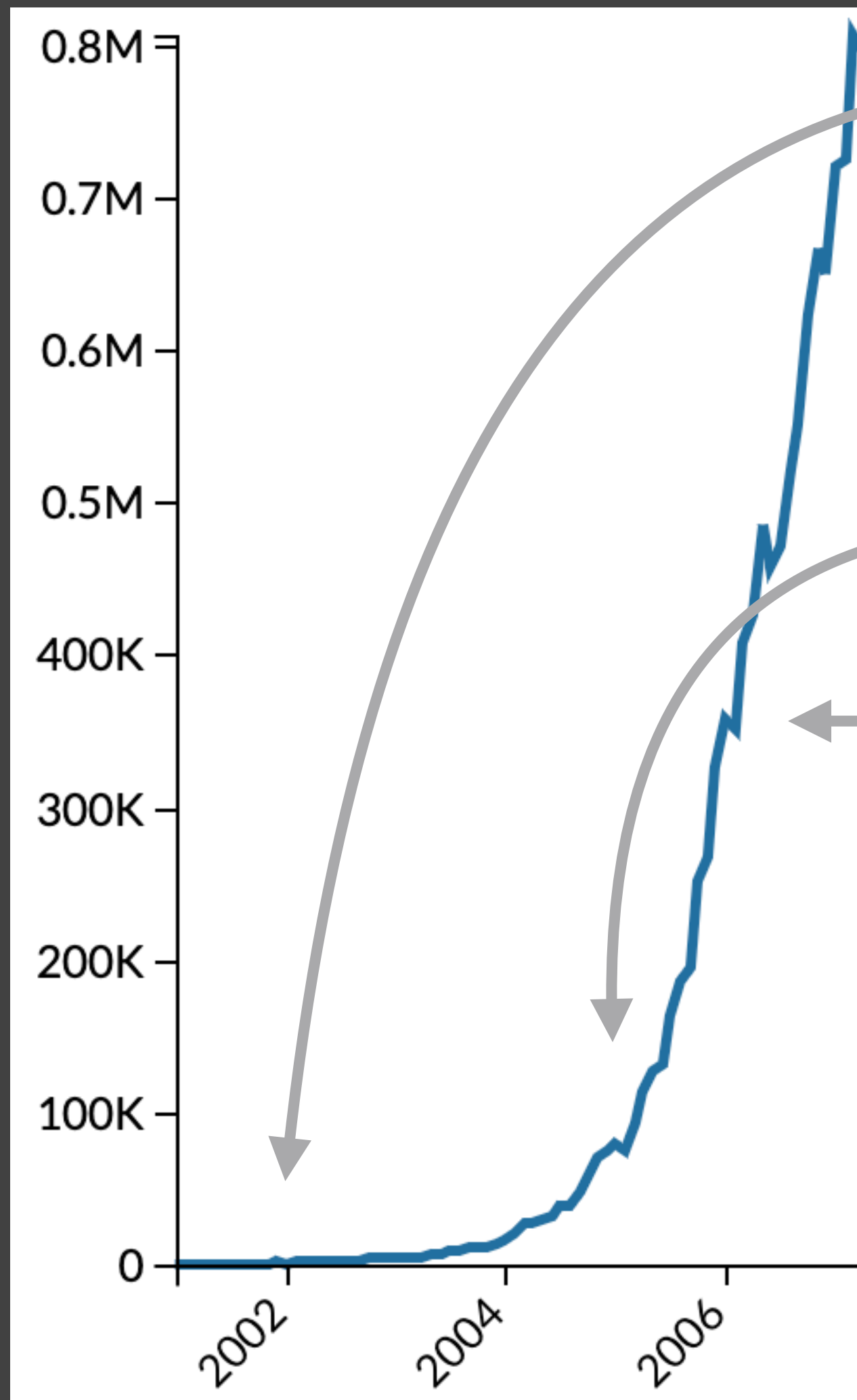
Wikipedia's growth and decline



Returning to the original question:

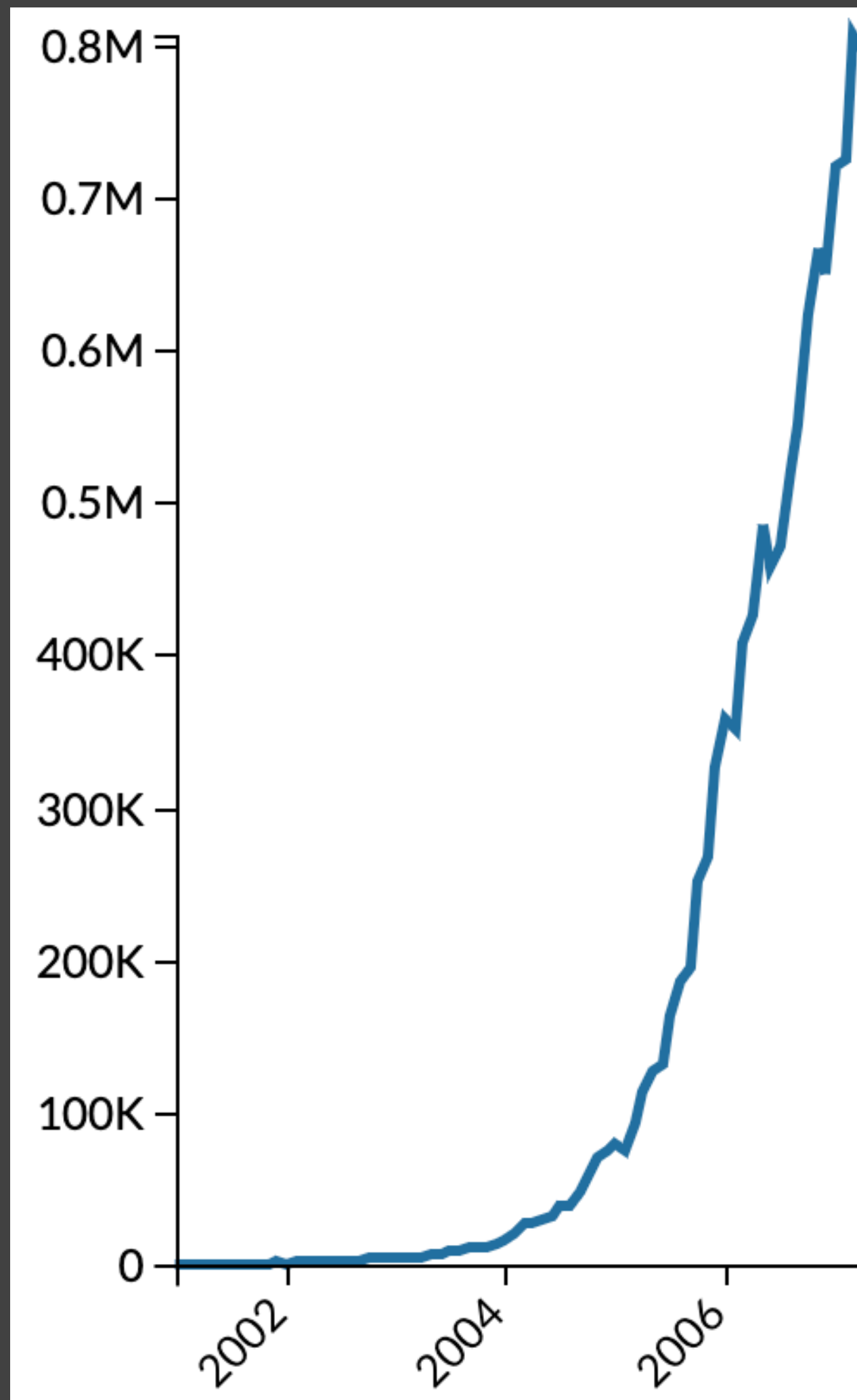
What happened?

Growing pains [Halfaker et al. 2012]

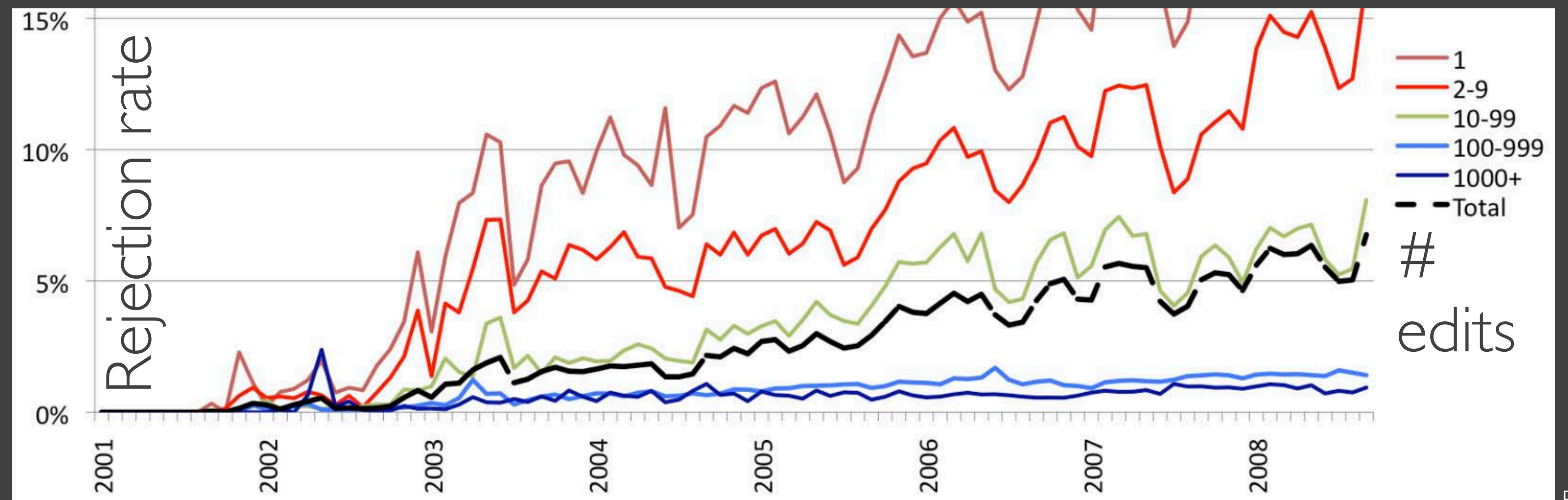


1. Wikipedia starts small, with little moderation needed and strongly motivated contributors
2. The formula works — Wikipedia grows
3. As Wikipedia grows, the percentage and volume of low-quality contributions rises, creating strain on the reputation of Wikipedia and the Wikipedia editors

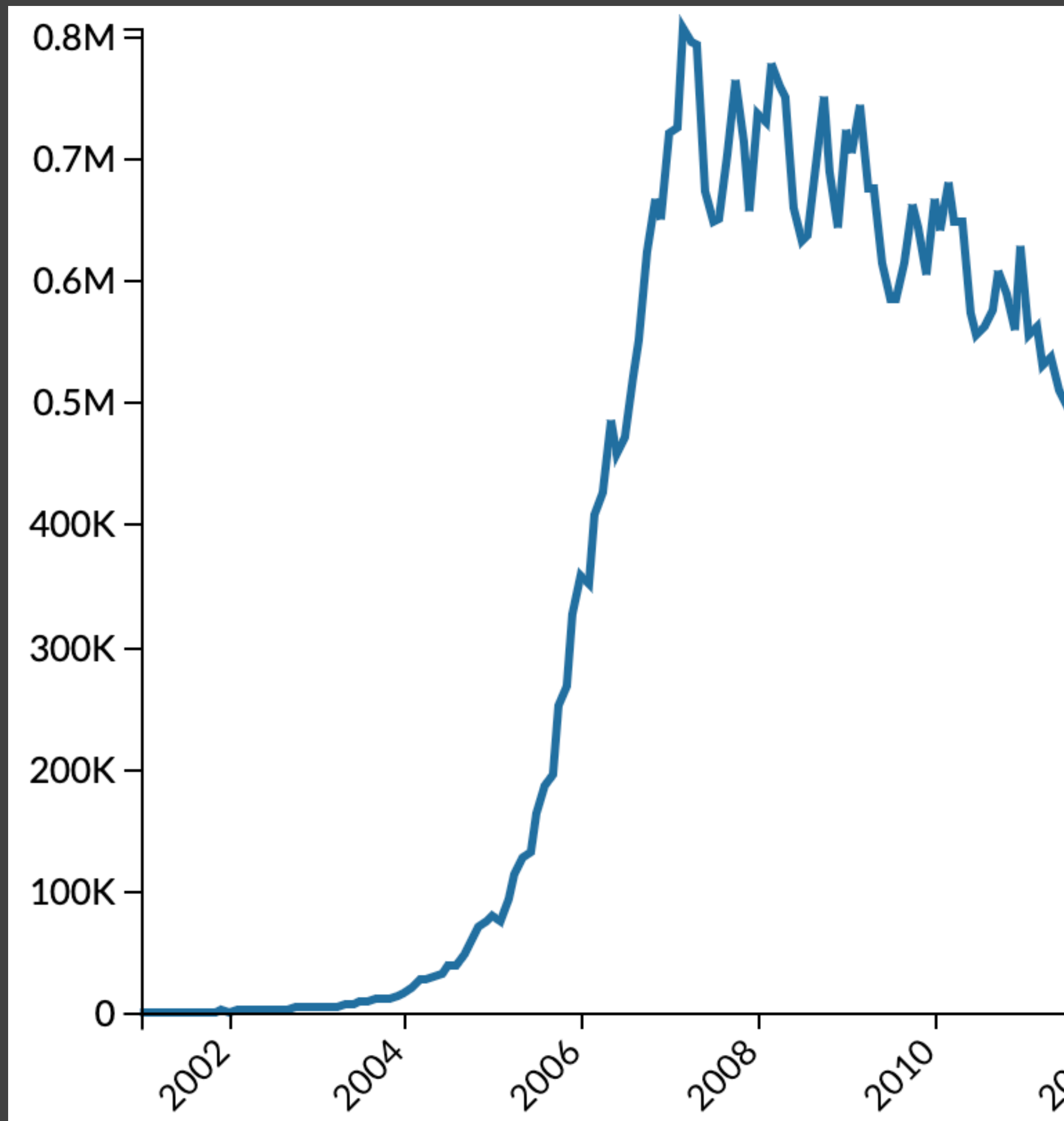
Growing pains [Halfaker et al. 2012]



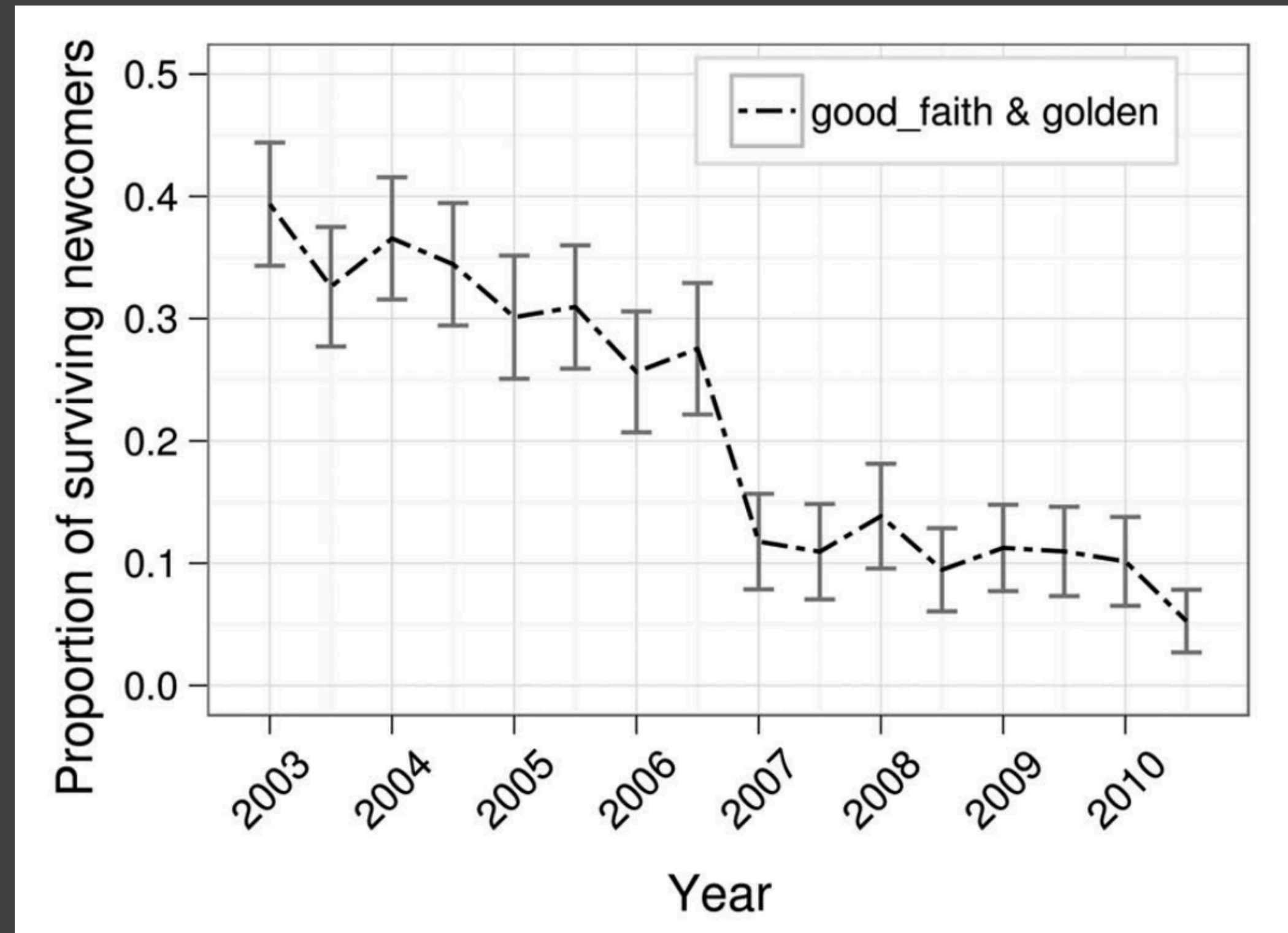
4. To manage the strain, Wikipedia admins stem the tide: they reject more contributions and create bots and tools to help them quickly revert bad work [Suh et al. 2009]



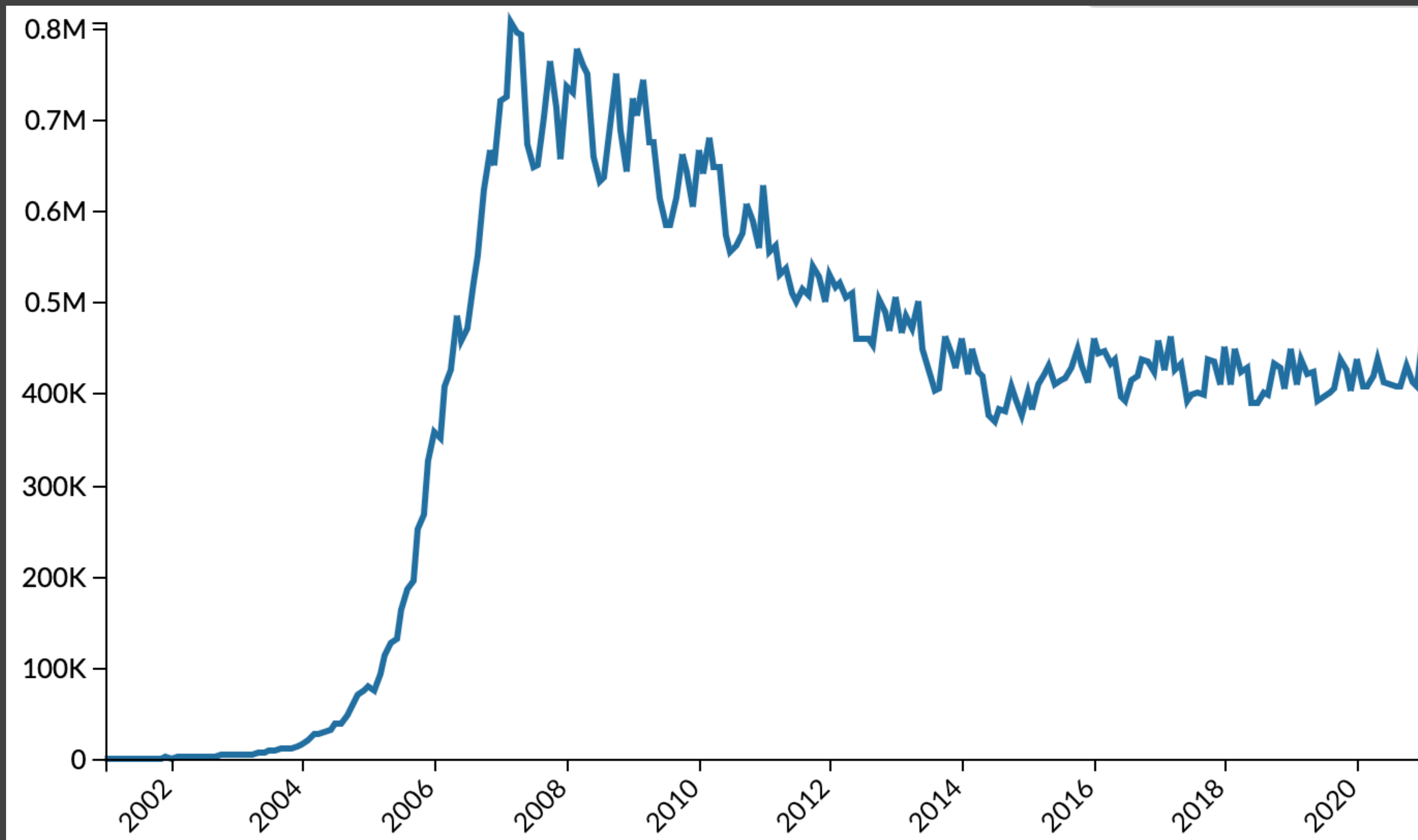
Growing pains [Halfaker et al. 2012]



5. The increased rejections leads newcomers to be less likely to stay



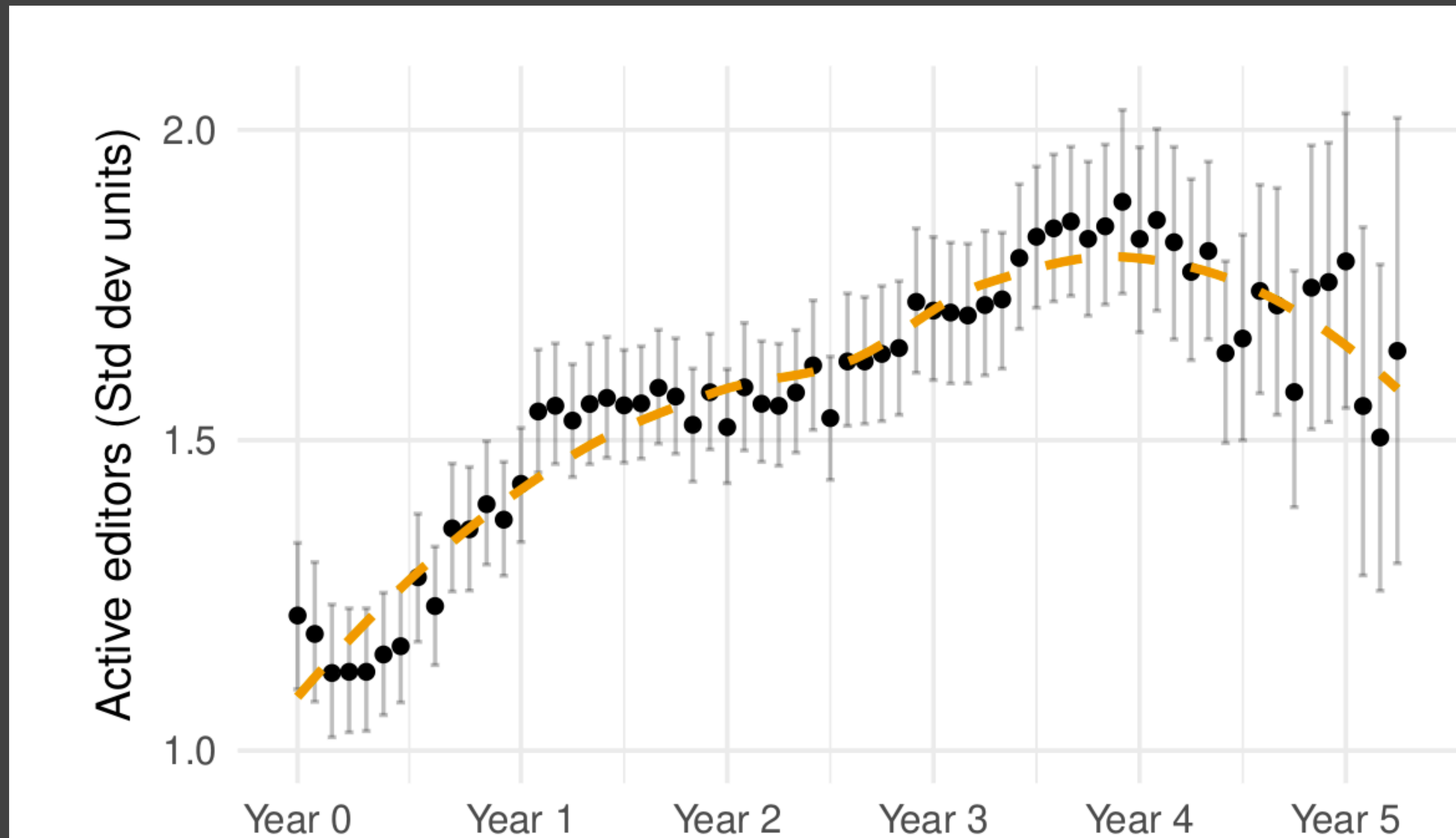
Growing pains [Halfaker et al. 2012]



1. Start small, little moderation
2. Get popular and grow
3. Strain under newcomer contributions
4. Institute policies to reduce junk
5. Lose newcomers w/ new policies

Not just Wikipedia [TeBlunthuis et al. 2018]

Replicated across hundreds of Wikia wikis
e.g., runescape, yugioh, harrypotter, ewrestling, onepiece, clubpenguin



1. Start small, little moderation
2. Get popular and grow
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5. Lose newcomers w/ new policies

Summary

Communities can't maintain the same design as they grow.
Newcomers change the dynamics, even if they absorb the norms
and oftentimes they don't absorb the norms.

Growth begets contention and rulemaking, which can push off
newcomers

Moderation and governance are key tools in managing th

Smash that Like button!

Subscribe

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