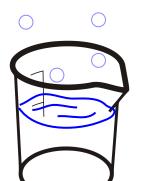
Wikipedia

Maintaining Production Efficiency,



Aaron Halfaker

User:EpochFail
User:Halfak (WMF)

ahalfaker@wikimedia.org

Outline

1. Wikipedia is Awesome

2. (English) Wikipedia's discontents

3. What can we do?

Part 1: Wikipedia is Awesome

Anyone can edit. No registration necessary.

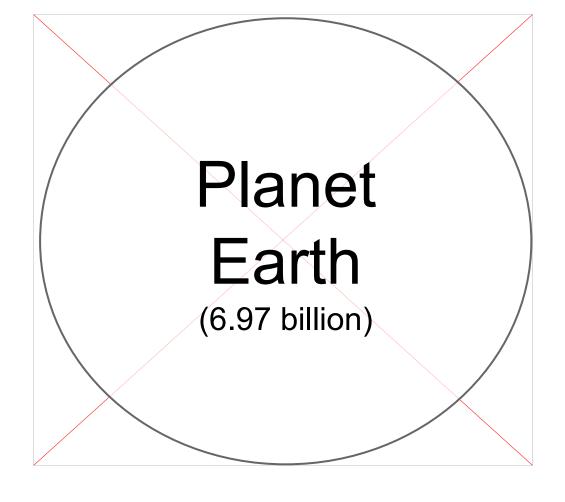
Anyone can edit. No registration necessary.

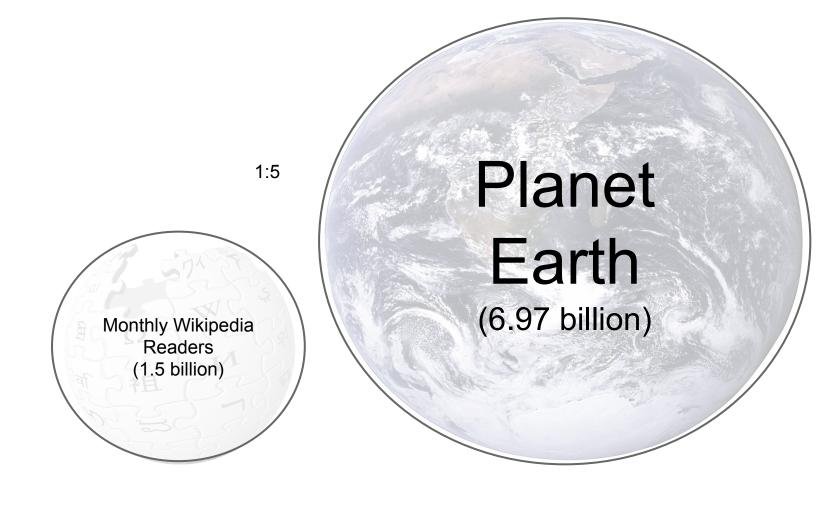
 No reward system. If anything, contributing is likely to bring negative attention.

Anyone can edit. No registration necessary.

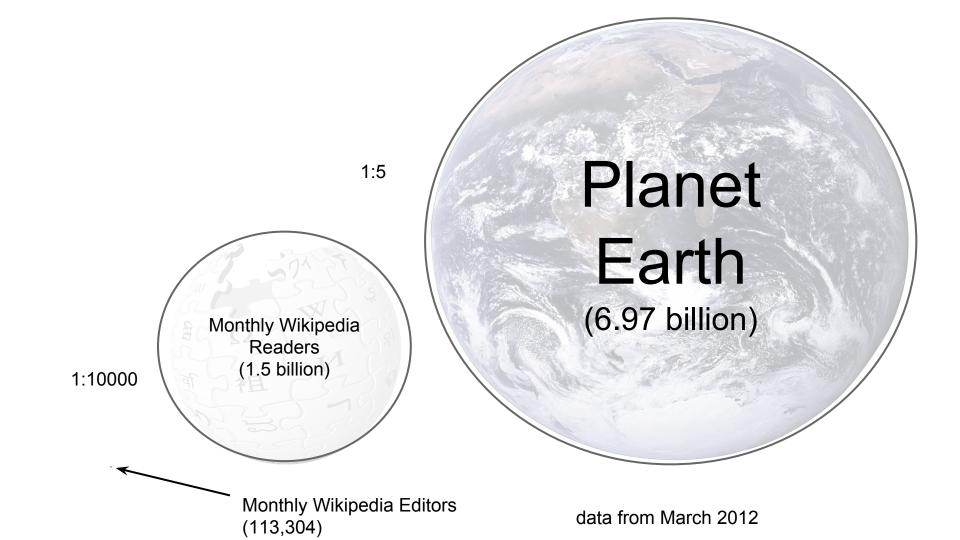
 No reward system. If anything, contributing is likely to bring negative attention.

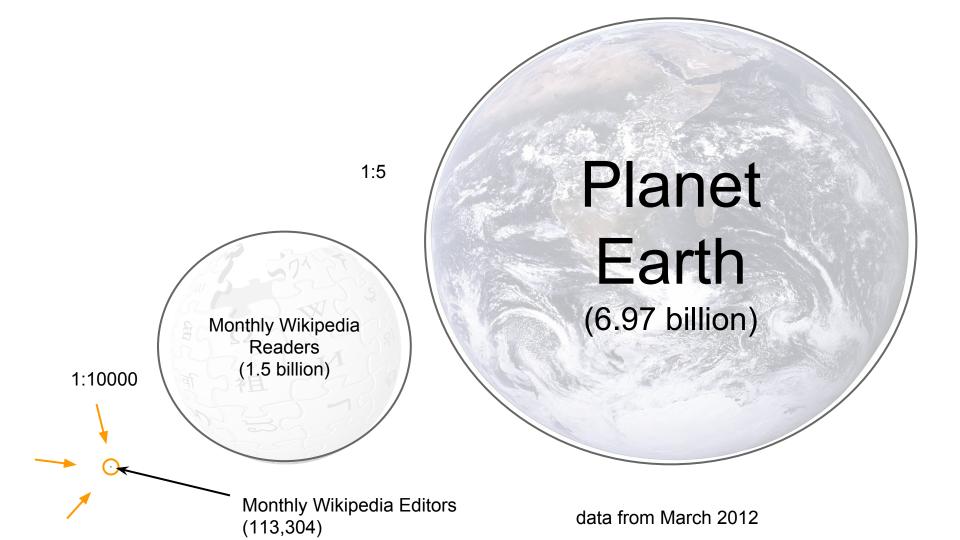
Actually a wild success!





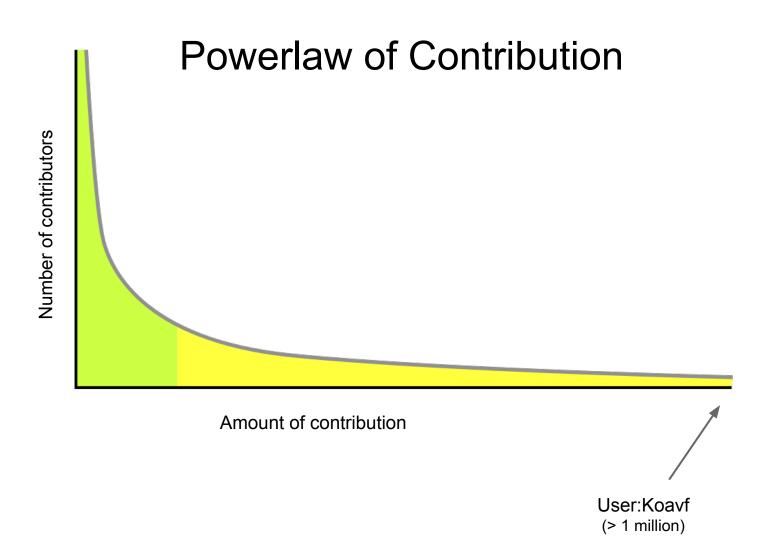
data from March 2012

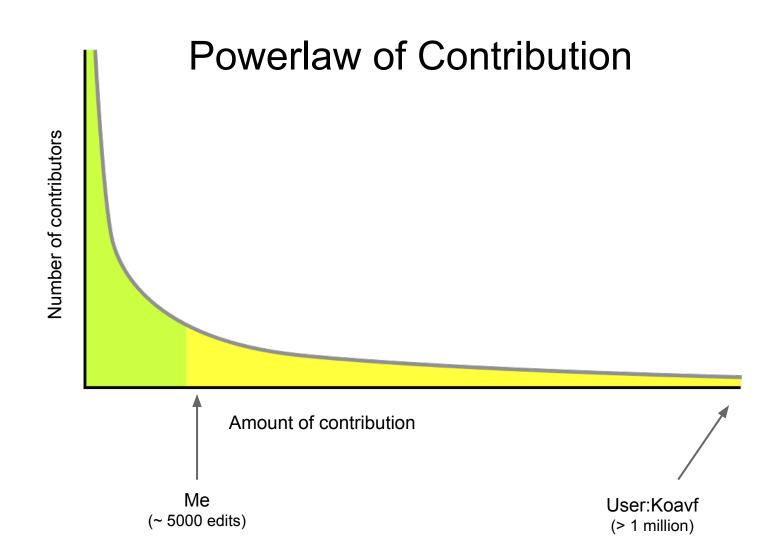


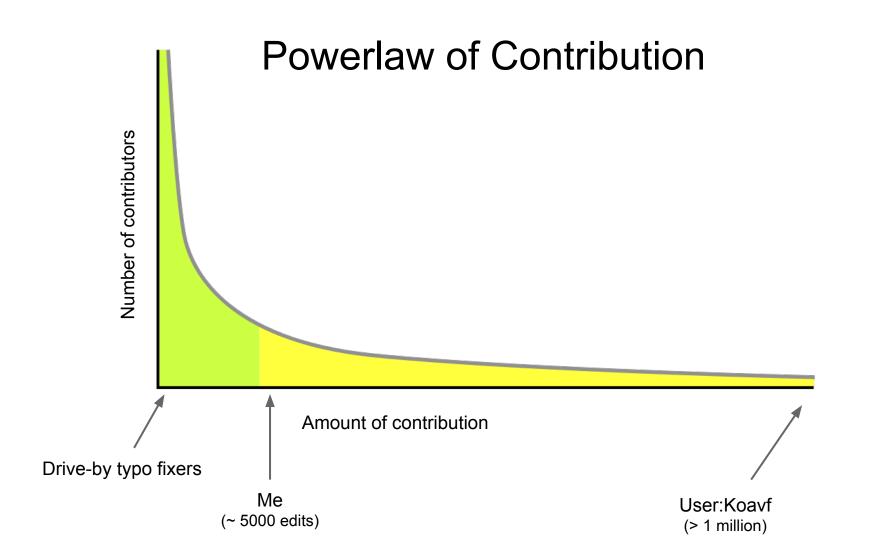


Powerlaw of Contribution Number of contributors

Amount of contribution





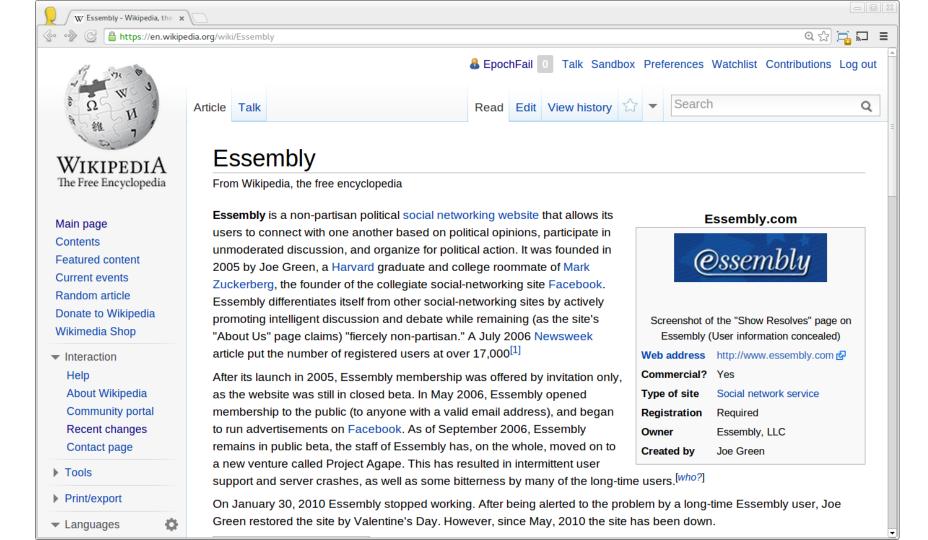


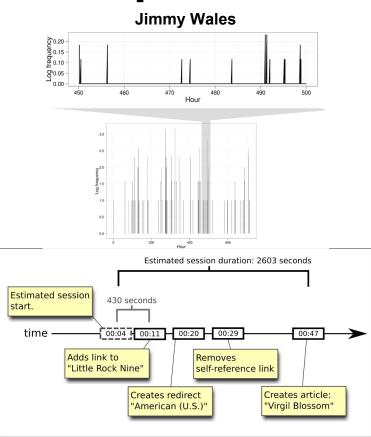
Powerlaws everywhere

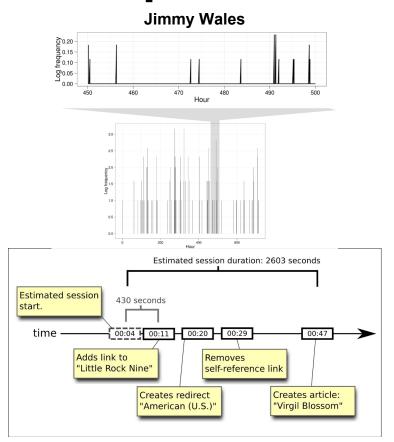
- Wikipedia
- Bugzilla
- Digg
- Essembly

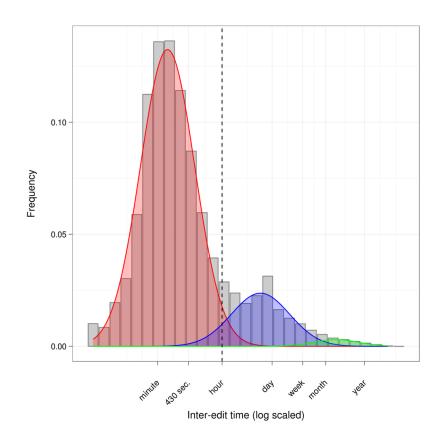
Powerlaws everywhere

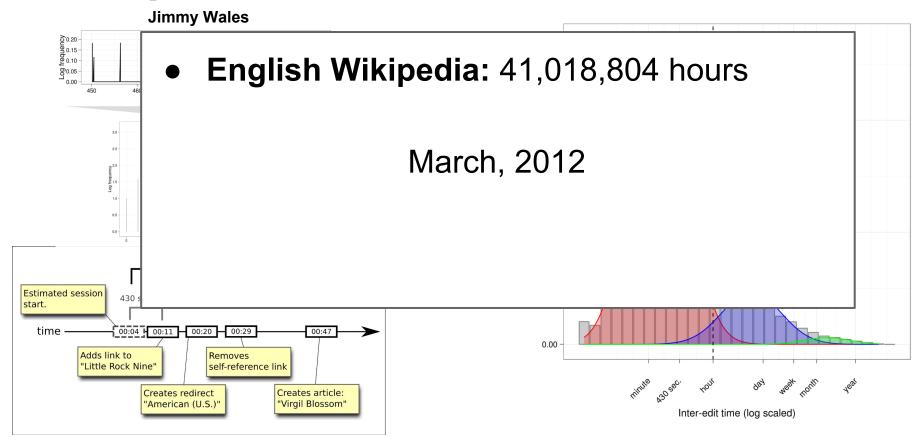
- Wikipedia
- Bugzilla
- Digg
- Essembly (???)

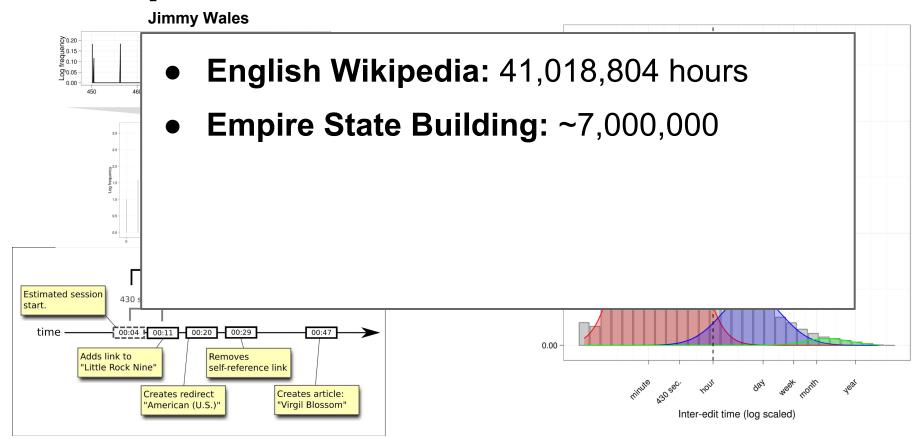


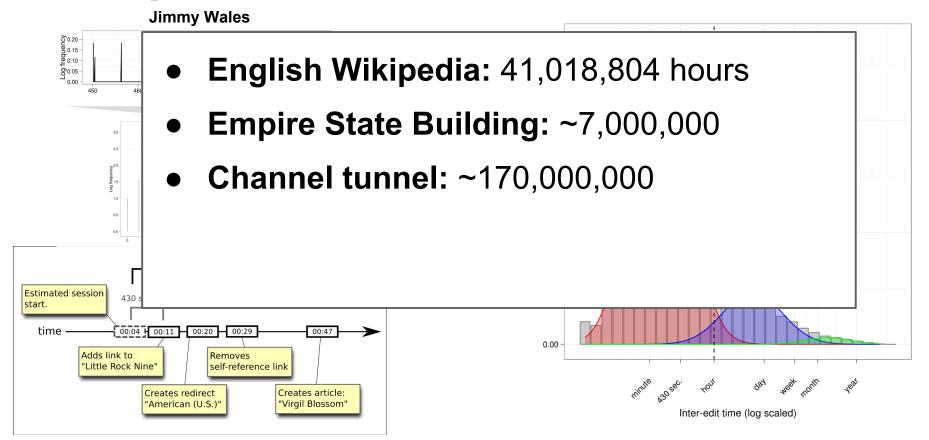


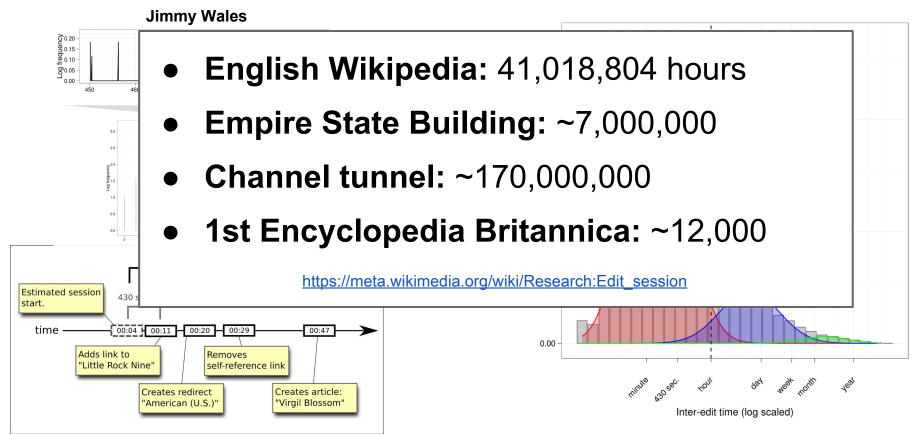












How did Wikipedia succeed?

How did Wikipedia succeed?

It's so easy to vandalize!















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Ö Languages Acèh Afrikaans العربية Avañe'ē বাংলা Bahasa Banjar

Elephant

From Wikipedia, the free encyclopedia

4 reader comments

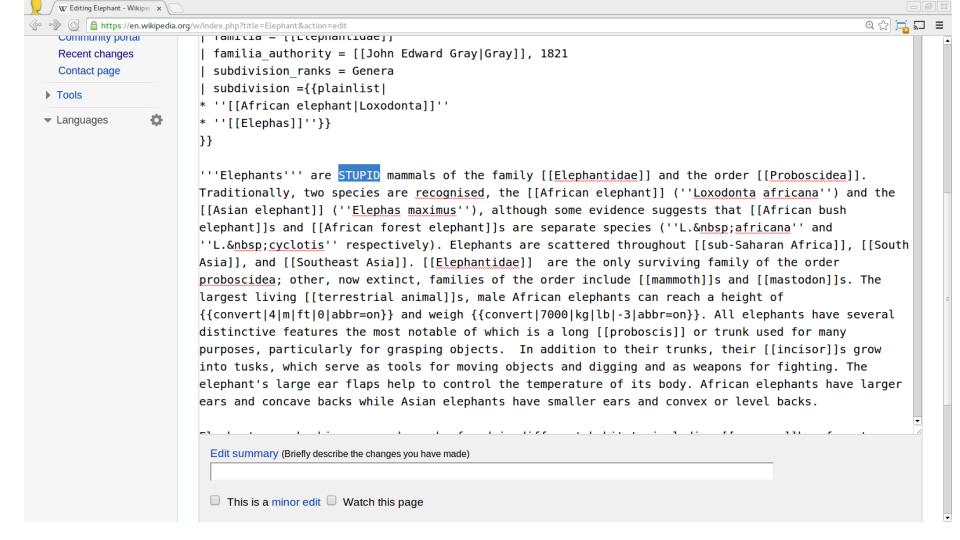
This article is about the living species. For extinct relatives also known as elephants, see Elephantidae. For other uses, see Elephant (disambiguation).

Elephants are large mammals of the family Elephantidae and the order Proboscidea. Traditionally, two species are recognised, the African elephant (Loxodonta africana) and the Asian elephant (Elephas maximus), although some evidence suggests that African bush elephants and African forest elephants are separate species (L. africana and L. cyclotis respectively). Elephants are scattered throughout sub-Saharan Africa, South Asia, and Southeast Asia. Elephantidae are the only surviving family of the order proboscidea; other, now extinct, families of the order include mammoths and mastodons. The largest living terrestrial animals, male African elephants can reach a height of 4 m (13 ft) and weigh 7,000 kg (15,000 lb). All elephants have several distinctive features the most notable of which is a long proboscis or trunk used for many purposes, particularly for grasping objects. In addition to their trunks, their incisors grow into tusks, which serve as tools for moving objects and digging and as weapons for fighting. The elephant's large ear flaps help to control the temperature of its body. African elephants have larger ears and concave backs while Asian elephants have smaller ears and convex or level backs.

Elephants are herbivorous and can be found in different habitats including savannahs, forests, deserts and marshes. They prefer to stay near water. They are considered to be keystone species due to their impact on their environments. Other animals tend to keep their distance, and predators such as lions, tigers, hyenas and wild dogs usually target only the young elephants (or "calves"). Females ("cows") tend to live in family groups, which can consist of one female with her calves or several related females with offspring. The groups are led by an individual known as the matriarch, often the oldest cow. Elephants have a fission-fusion society in which multiple family groups come together to socialise. Males ("bulls") leave their family groups when they reach puberty, and may live alone or with other males. Adult bulls mostly interact with family groups when looking for a mate and enter a state of increased testosterone and aggression known as must which helps them gain dominance and



African elephant in Mikumi National Park, Tanzania



--????

- Why is Wikipedia so successful?
- Where are we less successful?
- How can we fix that?

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- Where are we less successful?
- How can we fix that?

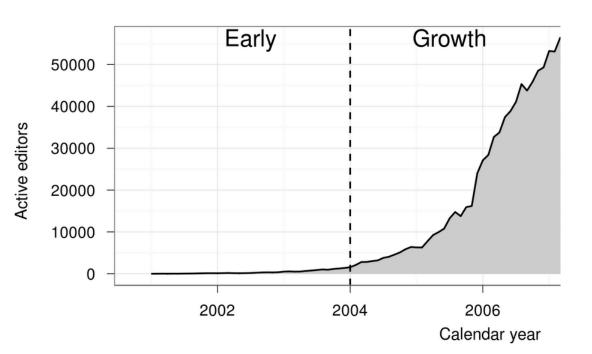
- Why is Wikipedia so successful?
- Where are we less successful?
- How can we fix that?

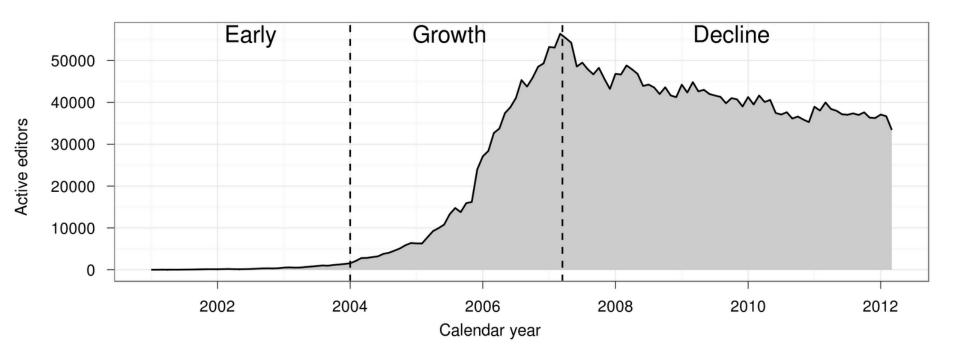
- Why is Wikipedia so successful?
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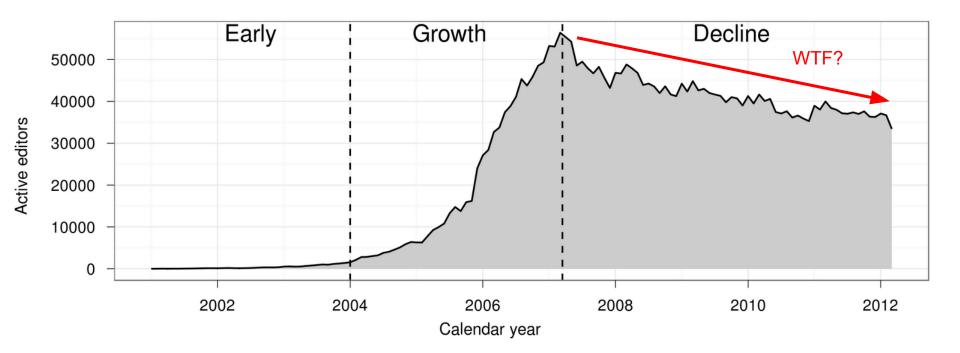
- Why is Wikipedia so successful?
- Where are we less successful?
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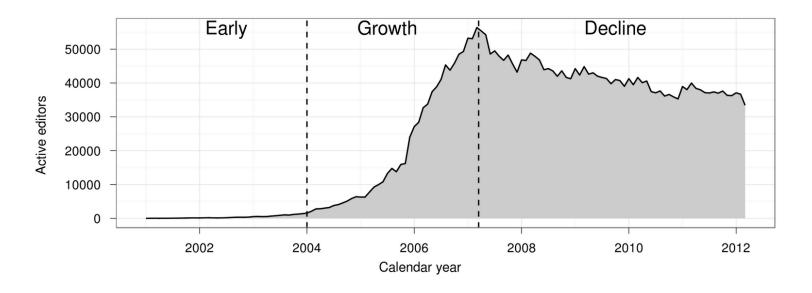
- Why is Wikipedia so successful?
- Where are we less successful?
- How can we fix that?

Part 2: (English) Wikipedia's discontents

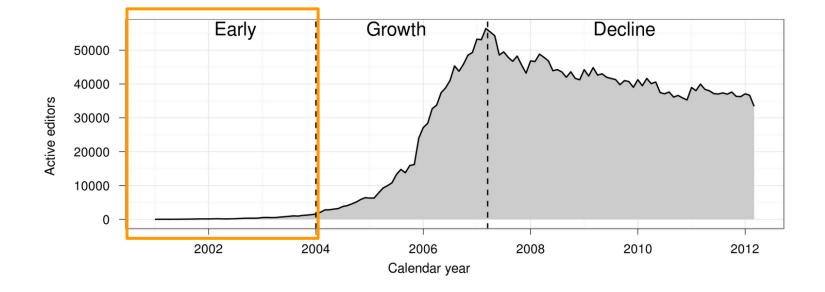




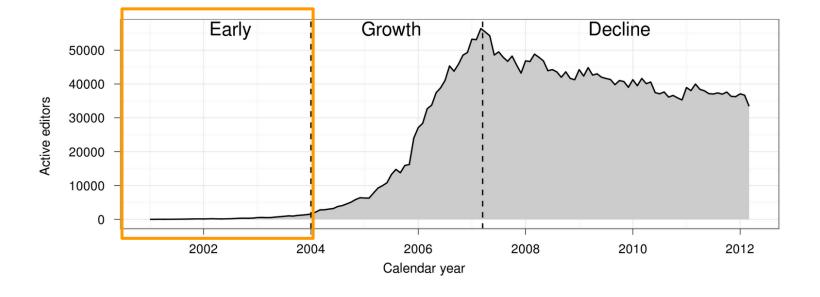




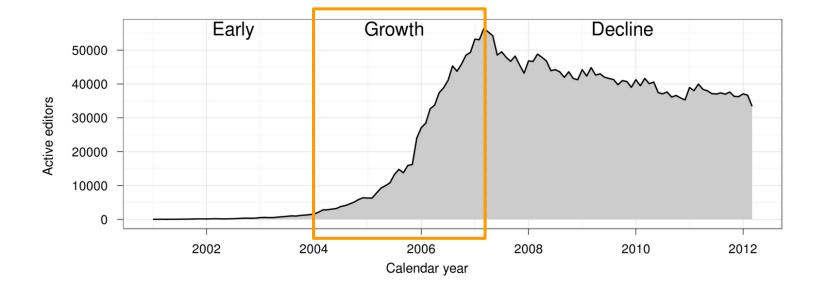
A long time ago on an internet that had yet to take Wikipedia seriously ...



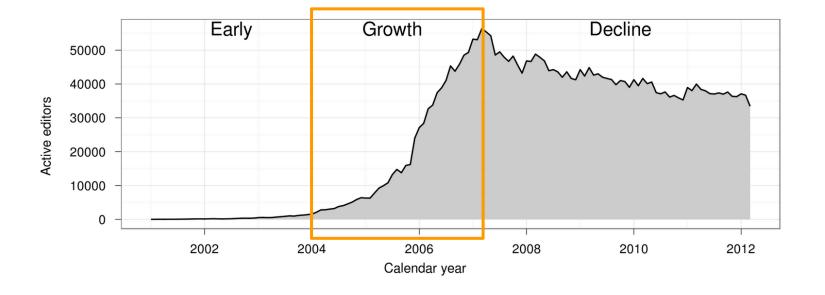
- Small
- Few editors
- Fewer vandals



Most of editors' time was spent adding content to articles.

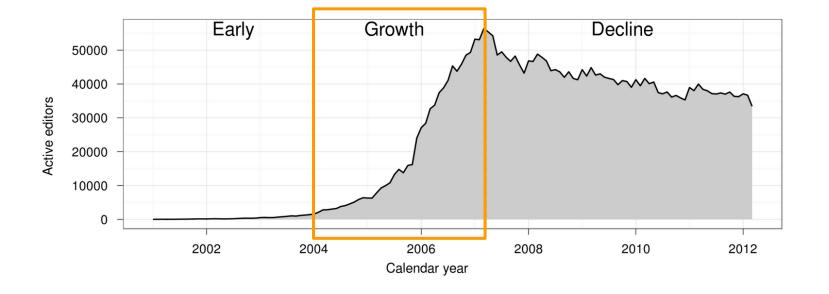


Popularity → More readers → More editors



Popularity → More readers → More editors

More editors → More better, right?

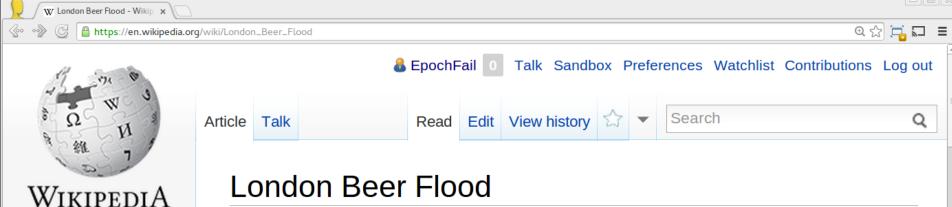


Popularity → More readers → More editors =

Massive new burden to maintain quality







From Wikipedia, the free encyclopedia

The **London Beer Flood** happened on 16 October 1814 in the parish of St. Giles, London, England. At the Meux and Company Brewery $^{[1]}$ on Tottenham Court Road, [1][2] a huge vat containing over 135,000 imperial gallons (610,000 L) of beer ruptured, causing other vats in the same building to succumb in a domino effect. As a result, more than 323,000 imperial gallons (1,470,000 L) of beer burst out and gushed into the streets. The wave of beer destroyed two homes and crumbled the wall of

the Tavistock Arms Pub, trapping teenage employee

Eleanor Cooper under the rubble.^[3] Within minutes

London Beer Flood

Coordinates: 51°31′00″N 0°07′49″W



Random article Donate to Wikipedia Wikimedia Shop ▼ Interaction Help https://en.wikipedia.org/wiki/Main_Page

The Free Encyclopedia

Main page

Featured content

Current events

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Known drowning fatalities [edit]

Name ^[6]	Age
Ann Saville	53
Eleanor Cooper	15–16
Hannah Bamfield	4
Catherine Butler	63
Elizabeth Smith	27
Mary Mulvey	30
Thomas Mulvey	3
Sean Duggins	29

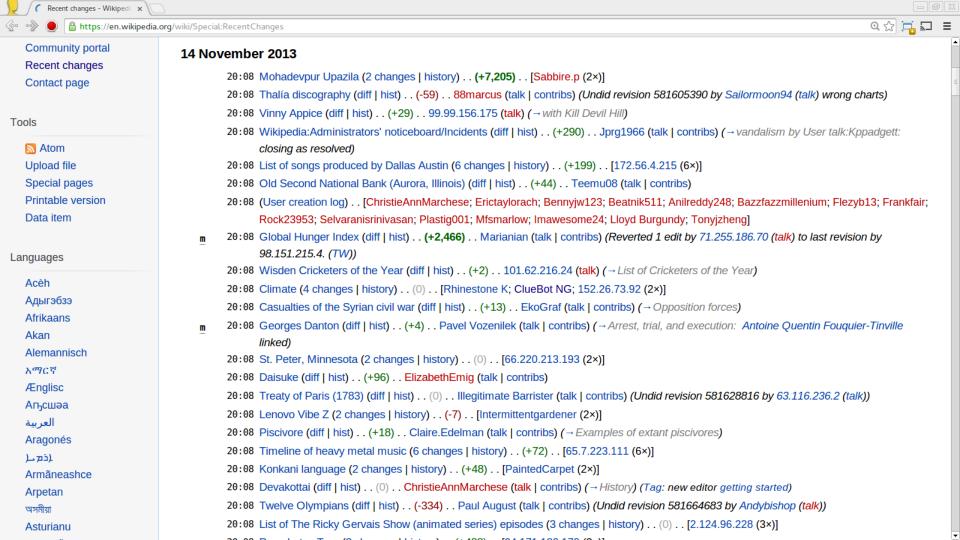
See also [edit]

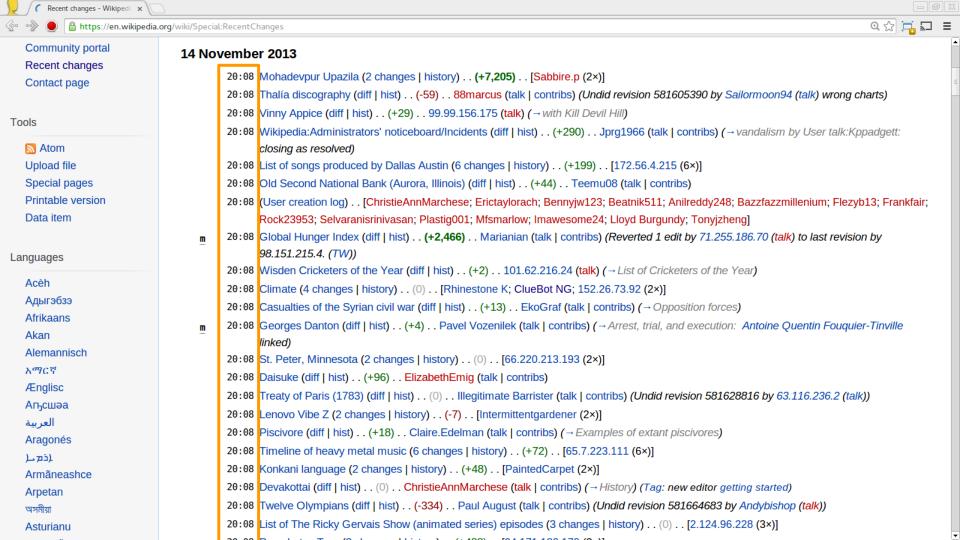
- Boston Molasses Disaster
- Great Fire of London
- Honolulu molasses spill

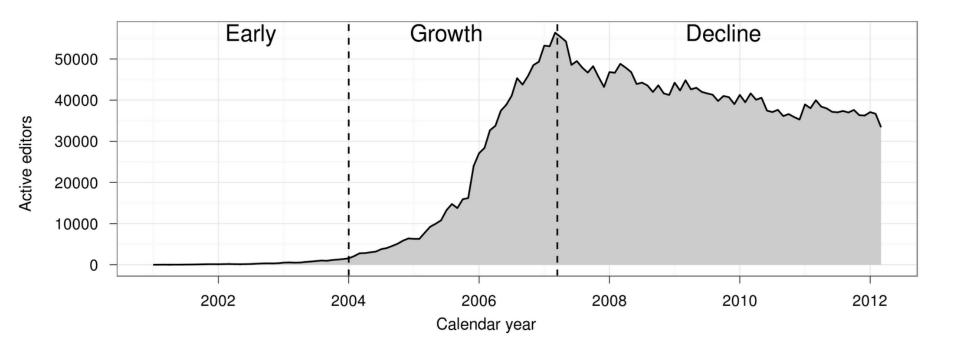
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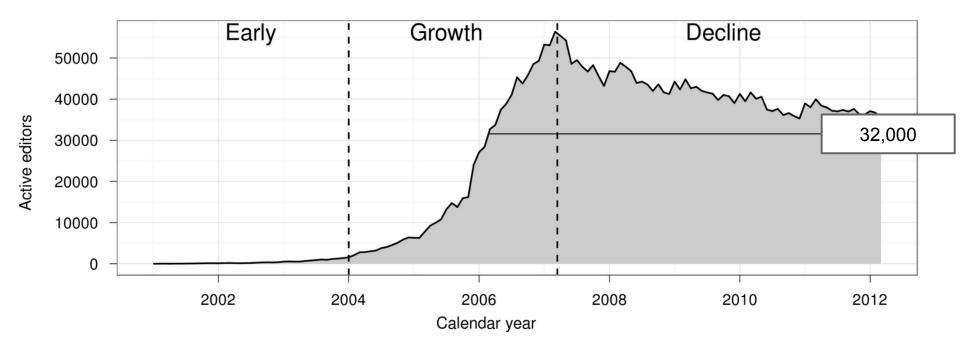


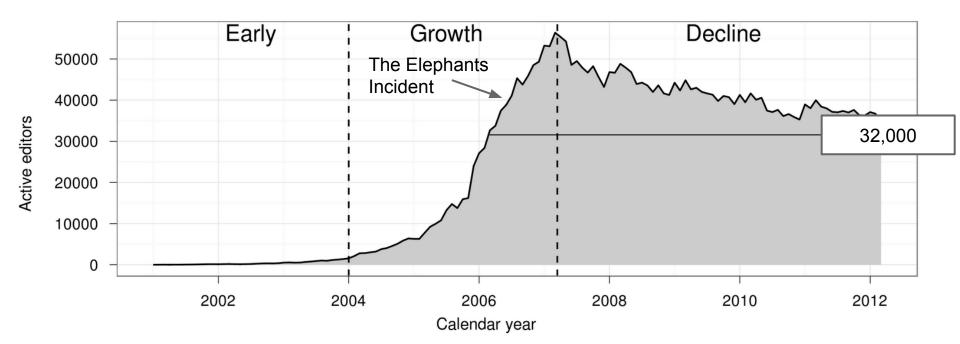
London portal

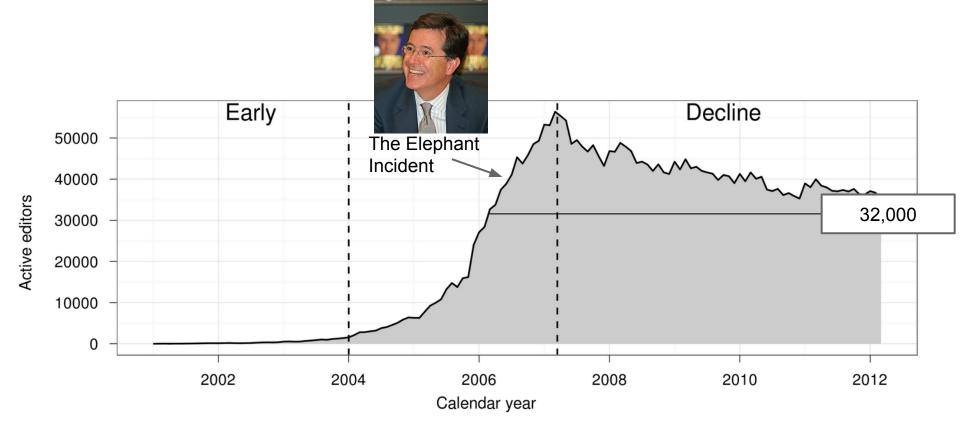


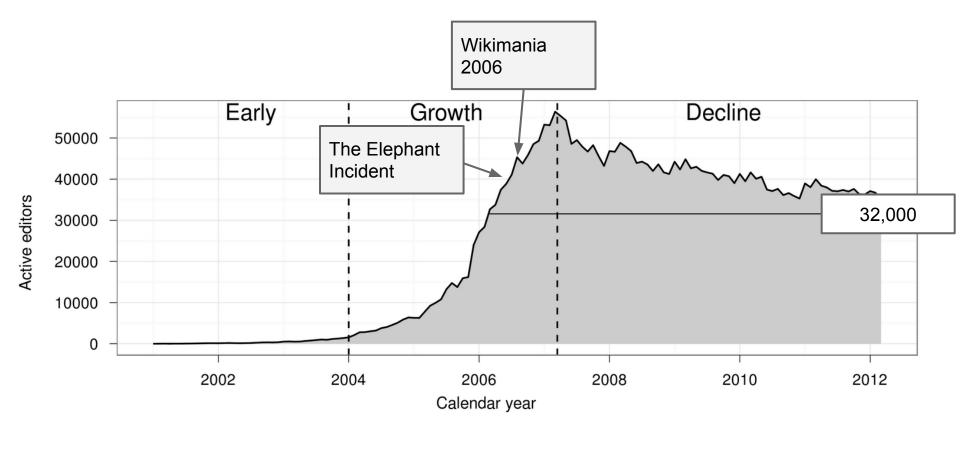


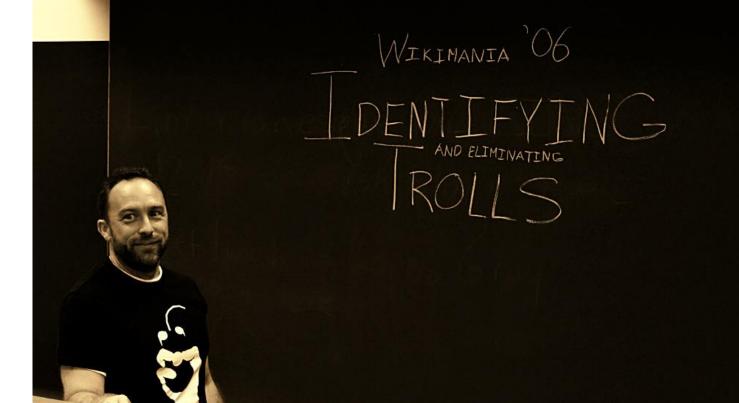












https://upload.wikimedia.org/wikipedia/commons/e/ea/Troll_school.jpg

Fully automated



Machine learning

- Fast (~ 5 seconds)
- No human effort
- Only obvious vandalism

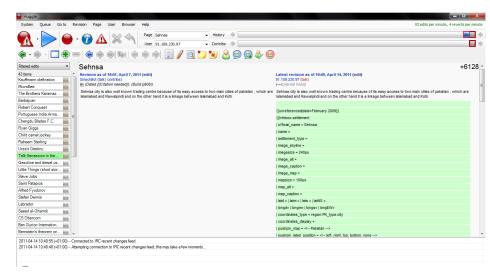
Fully automated



Machine learning

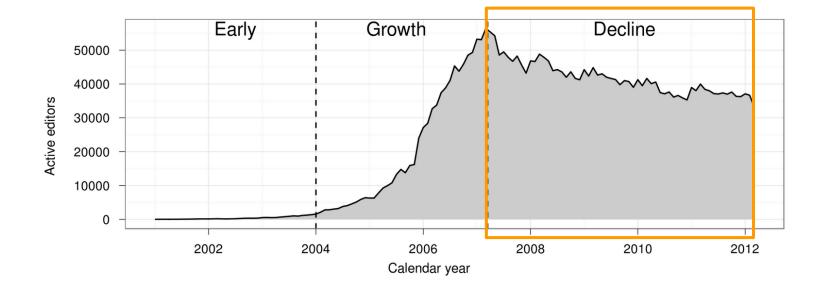
- Fast (~ 5 seconds)
- No human effort
- Only obvious vandalism

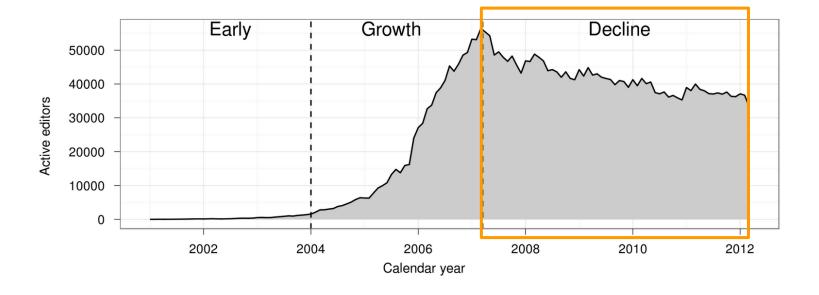
Semi automated



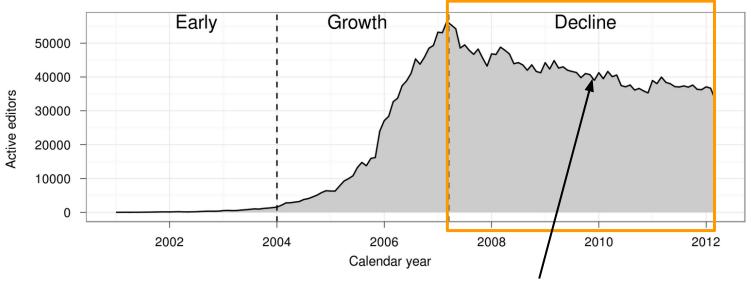
Human computation

- Still pretty fast (~ 30 seconds)
- Minimizes human effort
- Humans catch most vandalism at a glance





What's actually declining?



1. Suh et al. (2009) "The Singularity is not Near", WikiSym'09

What's actually declining?

Newcomers!

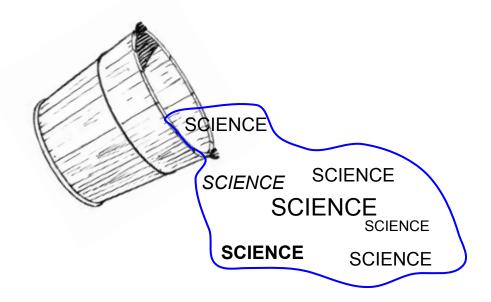
Wikipedia is done. It isn't.

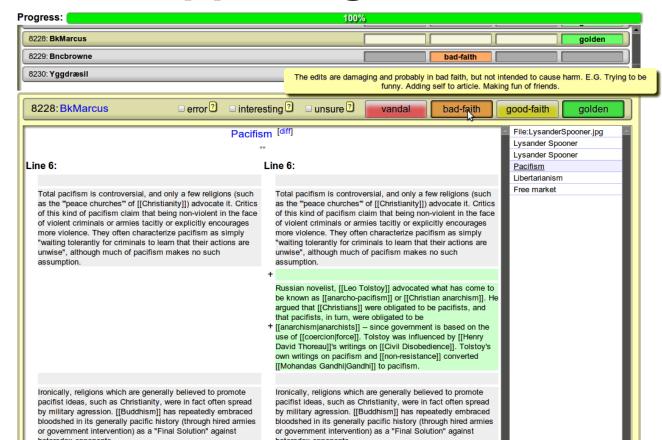
- Wikipedia is done. It isn't.
- Wikipedia has enough editors. It doesn't.

- Wikipedia is done. It isn't.
- Wikipedia has enough editors. It doesn't.
- Early adopter effect.

- Wikipedia is done. It isn't.
- Wikipedia has enough editors. It doesn't.
- Early adopter effect.

"Newcomers just aren't as good what they used to be." -Crotchety Wikipedians

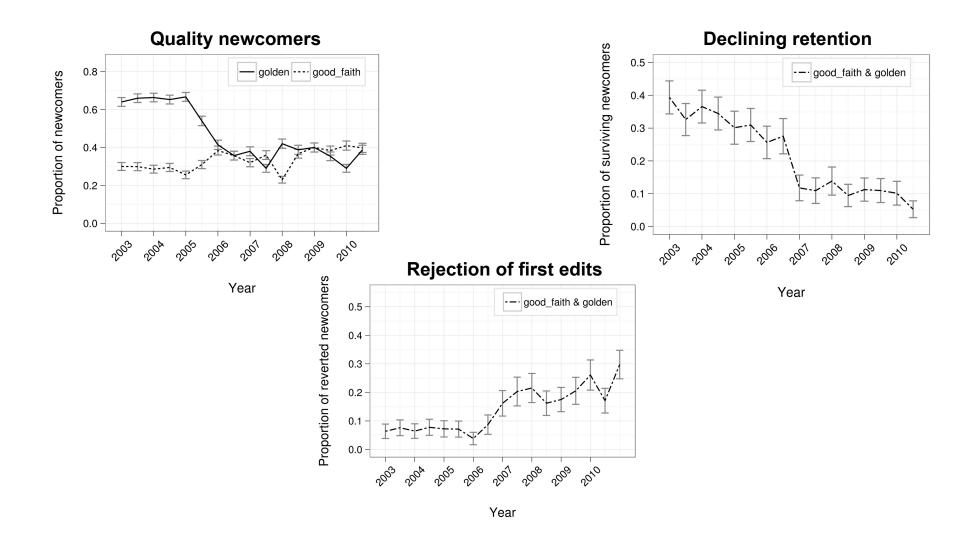


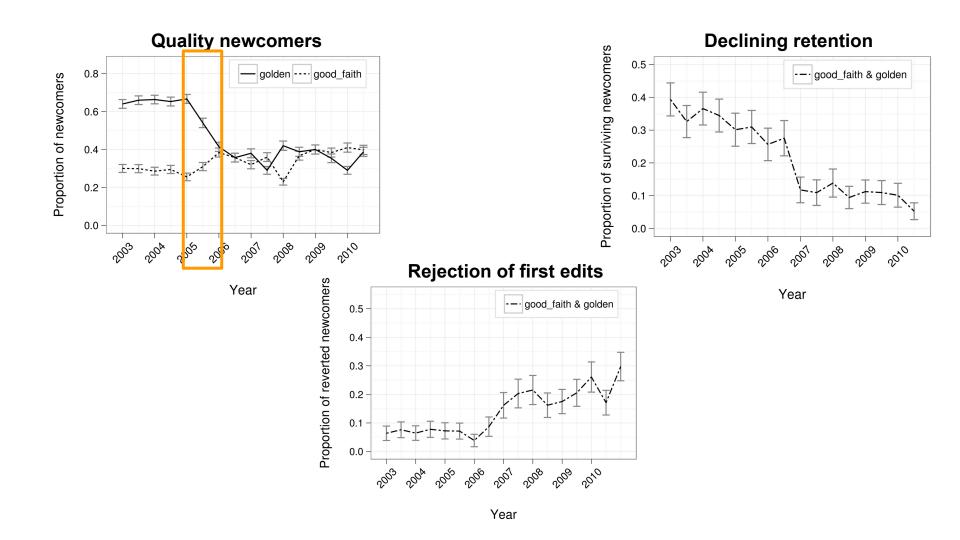


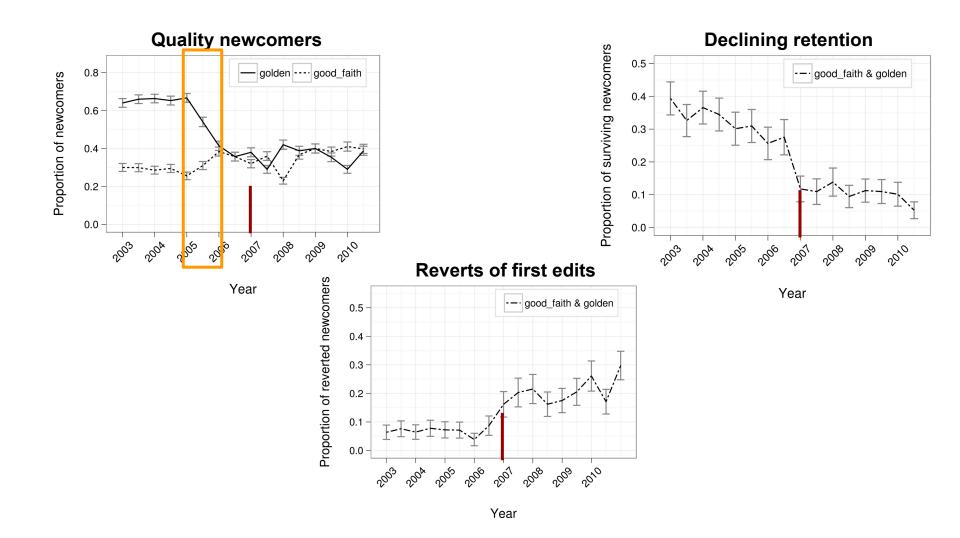
Thanks!
Oliver Keyes
Maryana Pinchuk
Steven Walling

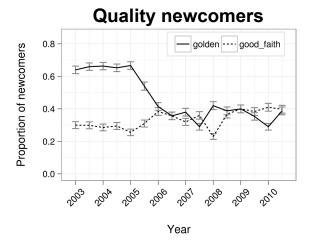
Stuart Geiger

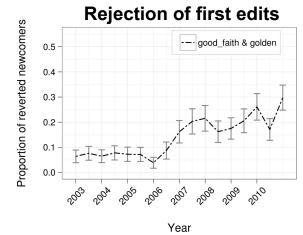
2100 newcomers

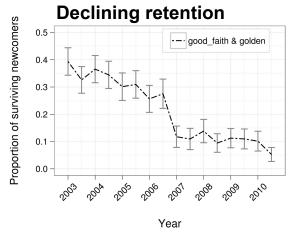


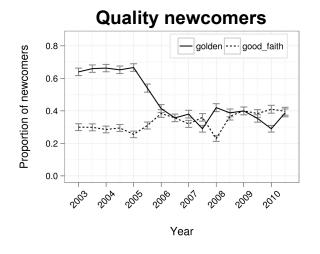


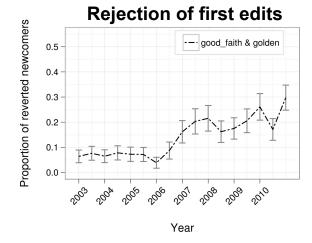


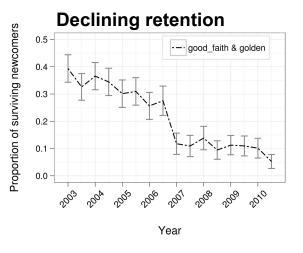


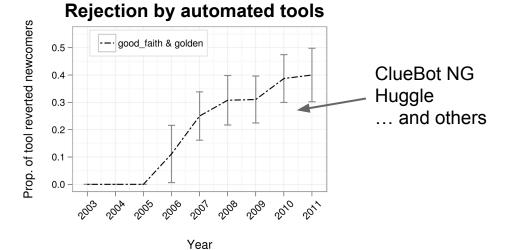












TL;DR:

Automation made quality control scale.

TL;DR:

Automation made quality control scale.

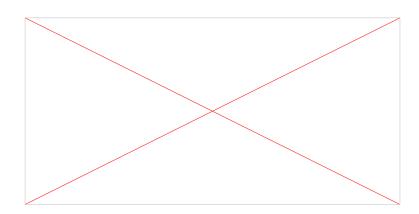
It's also scaring the good newbies away.

What do?

- We need good newcomers to stick around
- Automated tools are necessary to preserve quality.

Part 3: What can we do?

Part 3: What can we do?



Efficient **vandal** detection & removal

Part 3: What can we do?

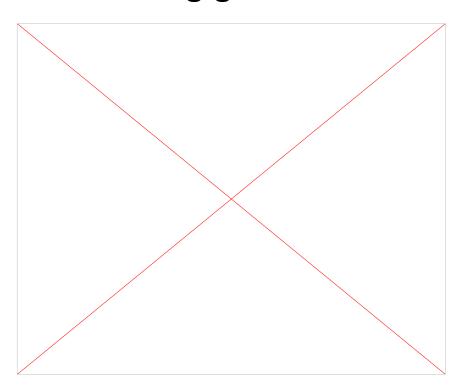


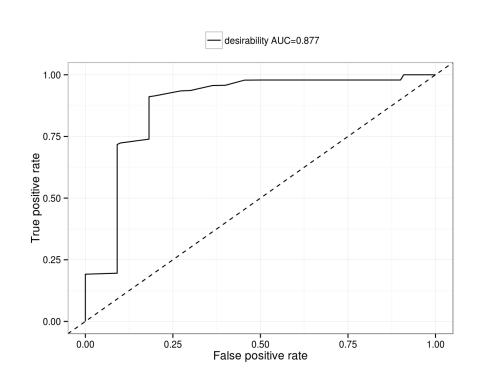
Efficient vandal detection & removal



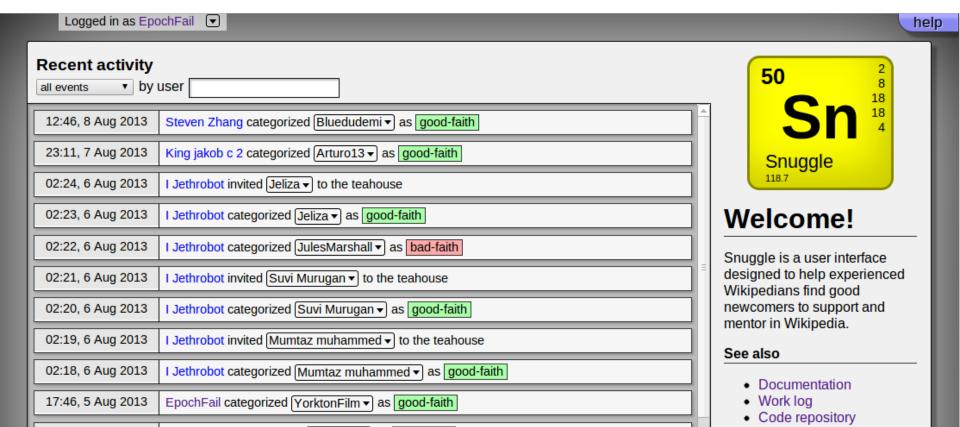
Efficient **good newcomer** detection & support

Detecting good newcomers with vandal bots

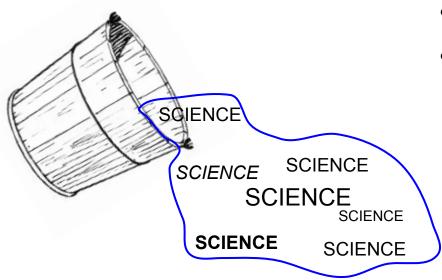




DEMO: http://snuggle.grouplens.org



Thanks!



Props to my collaborators

- Stuart Geiger
- Jonathan Morgan
- John Riedl

ahalfaker@wikimedia.org

Send me emails about science, Wikipedia, the internet or whatever.

Ping me (halfak) in #wikimedia-research on freenode