The people’s classifier service
Towards an open model for algorithmic infrastructure
About me

Hi. I'm Aaron Halfaker. I'm a computer scientist. I've been a Wikipedian since 2008. See my publications. In 2011, I started working with the Wikimedia Foundation as a researcher. See my volunteer account, User:EpochFail, for my non-staff work.

My work

I use the scientific method to explore the structure and function of Wikipedia. My goal is to identify problems/opportunities and to use this knowledge to improve/extend the software. See The Rise and Decline for an example of my research and Snuggle for an example of a tool for Wikipedians that I'm actively developing.

Contact me

- E-mail: ahalfaker @wikimedia.org
- Website: http://halfaker.info
- Twitter: http://twitter.com/halfak
- On IRC, I go by "halfak".

2. Critique of algorithmic quality control

2. Critique of algorithmic quality control

3. Infrastructure for socio-technical change
   - Feminist HCI inspiration
Part 2. Critique of algorithmic infrastructure
- :m:Research:The_Rise_and_Decline
Standpoint

- Wikipedia is a firehose
- Bad edits must be reverted
- Minimize effort wasted on quality control work
Standpoint

- Wikipedia is a firehose
- Bad edits must be reverted
- Minimize effort wasted on quality control work

MASSIVE SUCCESS!
THE INTERNET

huggle

User:ClueBot NG

RecentChanges

2006 → 2012
Woah woah woah! We forgot about the socialization!
- Wikipedia is a firehose
- Bad edits must be reverted
- Minimize effort wasted on quality control work
● Wikipedia is a firehose ✓
● Bad edits must be reverted
● Minimize effort wasted on quality control work
• Wikipedia is a firehose ✓
• Bad edits must be reverted ✓
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• Wikipedia is a firehose ✓
• Bad edits must be reverted ✓
• Minimize effort wasted on quality control work ✓
• Socialize & train the newcomers!
Wikipedia:Teahouse  Newcomer Q&A

Wikipedia:Snuggle  Technological support for mentors

Wikipedia:Co-op  Newcomer training and mentorship
THE INTERNET

2012 - today

RecentChanges

huggle

User:ClueBot NG
Win?
First, the sugar
Huggle is an amazing piece of software. I have no doubt it represents the state of the art in distributed quality control. This software and its users are responsible for critical quality control work and I think they are cool people. We owe them a lot for their thankless work. Thank you!
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Now for the medicine
Laura Bush

Revision as of 11:56, April 11, 2009 (edit)
74.143.33.2 [talk | contribs]

Laura Lane Welch Bush (born November 4, 1946) is the wife of the [[List of Presidents of the United States|forty-third]] [[President of the United States|President of the United States]], [[George W. Bush]], and was the [[First Lady of the United States|First Lady of the United States]] from January 20th, 2001 to January 20th, 2009. She smelt like bad body odor.

Mrs. Bush has had a love for books and reading since childhood, and her life and education have reflected that interest. She graduated from [[Southern Methodist University]] in 1968 with a [[Bachelor's degree]] in [[Education]], and soon took a job as a second grade [[School teacher]]. After attaining her [[Master's degree]] in [[Library Science]] at the [[University of Texas at Austin]], she was employed as a [[Librarian]]. She met George Walker Bush in 1977, and they were married later that year; in 1981, the couple had twin daughters.

Current revision as of 11:56, April 11, 2009 (edit)
Until it Sleeps [talk | contribs]

m [Reverted edits by 74.143.33.2 to last revision by 128.132.117 (HGU)]

Laura Lane Welch Bush (born November 4, 1946) is the wife of the [[List of Presidents of the United States|forty-third]] [[President of the United States|President of the United States]], [[George W. Bush]], and was the [[First Lady of the United States|First Lady of the United States]] from January 20th, 2001 to January 20th, 2009. Mrs. Bush has had a love for books and reading since childhood, and her life and education have reflected that interest. She graduated from [[Southern Methodist University]] in 1968 with a [[Bachelor's degree]] in [[Education]], and soon took a job as a second grade [[School teacher]]. After attaining her [[Master's degree]] in [[Library Science]] at the [[University of Texas at Austin]], she was employed as a [[Librarian]]. She met George Walker Bush in 1977, and they were married later that year; in 1981, the couple had twin daughters.
Huggle circa 2009

Good

Bad
Good

Bad

Probably bad

Probably less bad
Summary: No summary was provided
Size change: +104


Kenn Davis together with John Stanley, in 1977, was an Edgar Award nominee for "The Dark Side". In 1985, he was again an Edgar Award.
Huggle 3.0

Good

Bad

Probably bad

Probably less bad
The state of quality control in Wikipedia remains relatively unchanged.
Why?
Part 3: Infrastructure for socio-technical change
The machine classifier
The machine classifier

is_anon
chrs_added
chrs_removed
cust_comment
repeated_chrs
longest_token
badwords_added
The machine classifier

is_anon
chrs_added
chrs_removed
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The machine classifier

is_anon
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chrs_removed
cust_comment
repeated_chrs
longest_token
badwords_added

Good.

BAD!
The machine classifier

- `is_anon`
- `chrs_added`
- `chrs_removed`
- `cust_comment`
- `repeated_chrs`
- `longest_token`
- `badwords_added`
The machine classifier

is_anon
chrs_added
chrs_removed
cust_comment
repeated_chrs
longest_token
badwords_added

Good.

BAD!

Probably bad

Probably less bad

revert!

User: ClueBot NG
Wikipedia is a firehose ✓
Bad edits must be reverted ✓
Minimize effort wasted on quality control work ✓
Socialize & train the newcomers! ✓
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Socialize & train the newcomers! ✓

- 20+ research papers on Wikipedia damage detection
- Machine classification not part of standard CS degree
- Many wiki-tool devs don’t have a CS degree anyway.

Labor intensive, performance considerations, etc.
Wikipedia is a firehose ✓
Bad edits must be reverted ✓
Minimize effort wasted on quality control work ✓
Socialize & train the newcomers! ✓

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Labor intensive, performance considerations, etc.
Revision scoring as a service!

- He7d3r
- とある白い猫
- Ladsgroup
- Danilo.mac
Revision scoring as a service!

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http://ores.wmflabs.org/scores/enwiki/?models=reverted&revids=638307884|642215410
In 2013 Wilson, in collaboration with [[Mikhail Baryshnikov]] and co-starring [[Willem Dafoe]], developed "[[The Old Woman]]" an adaptation of the work by the Russian author [[Danil Kharmo]]. The play premiered at MIF13, Manchester International Festival.<ref>[(Cite web)](http://www.mft.co.uk/event/the-old-woman) The Old Woman Robert Wilson, Mikhail Baryshnikov. Willem Dafoe(date = 2013)accessdate = 2014-11-23)website = Manchester International Festival)Publishers = Manchester International Festival)last = Jansch(first = Lucie).</ref> Wilson wrote that he and [[Mikhail Baryshnikov][[Baryshnikov]]] have discussed creating a play together for years, perhaps based on a Russian text.<ref>[(Cite web)](http://caipperformances.org/learn/program_notes/2014/pc_oldwoman.pdf)title = Cal Performances University of California, Berkeley Playbill(date = 2014)accessdate = 2014-11-23)website = Calperformances)Publisher = UC Berkeley(last = Wilson(first = Robert)).</ref> The final production included dance, light, singing and bilingual monologue.

"638307884": {
  "reverted": {
    "prediction": false,
    "probability": {
      "false": 0.7638,
      "true": 0.2362
    }
  }
},
"642215410": {
  "reverted": {
    "prediction": true,
    "probability": {
      "false": 0.0473,
      "true": 0.9527
    }
  }
}

"intelligence" is hard to define, whether in dogs, other animals, or humans. The ability to learn quickly might be taken as a sign of [[intelligence (trait)|intelligence]], but such evidence must be interpreted with care, because learning speed may be affected by such things as the effectiveness of the rewards used in training or the motivation of the animal or activity level of the dog. For example, some breeds, such as [[Siberian Husky|Siberian HUSKIES]], are said to be not particularly rewarded by pleasing their owners, but quickly learn to escape from yards or catch small animals, often using ingenious ways of doing both.<ref>[(Cite web)](http://www.siberianhuskycentral.com/siberian-husky-dogs) Good Dogs</ref>

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GROW ON TREES
13 May 2015

04:46 ibiza Airport (diff | hist) .. (-184) .. Citydude1017 (talk | contribs) (~ Airlines and destinations: long ended)

04:46 Shoegazing (diff | hist) .. (+17) .. 71.60.236.130 (talk)

04:46 Emma (wrestler) (2 changes | history) .. (-336) .. [CEDJunior (2x)]

04:46 Wikipedia talk:WikiProject Military history/Coordinators (diff | hist) .. (+124) .. Peacemaker67 (talk | contribs) (~ ACRs for closure: -1)

04:46 User talk:24.72.138.59 (diff | hist) .. (+472) .. Materialscientist (talk | contribs) (~ Created page with '{{subst:uw-test2}} ~~~~')

04:46 User:Tigercompanion25 (diff | hist) .. (+22) .. Joshua Jonathan (talk | contribs) (Added template. See talkpage)

04:46 Category:Banks (singer) albums (diff | hist) .. (-37) .. Erpert (talk | contribs) (tweak)

04:46 Sara Zaker (4 changes | history) .. (+6) .. [Fatima.baki (4x)]

04:46 Sinbad Formation (6 changes | history) .. (-46) .. [Chipperkwah; Hughana (5x)]

04:46 User talk:173.176.191.149 (diff | hist) .. (+472) .. Materialscientist (talk | contribs) (~ Created page with '{{subst:uw-test2}} ~~~~')

04:46 Dexter's Laboratory (diff | hist) .. (-1) .. Phil A. Fry (talk | contribs) (~ Premise)

04:46 Portland moth (diff | hist) .. (+54) .. Schreiber3ike (talk | contribs) (((R to scientific name)))

04:46 John Roche (diff | hist) .. (-109) .. Jgroche58 (talk | contribs)

04:46 User talk:NickW557 (diff | hist) .. (+236) .. Youngvoltiare (talk | contribs)

04:46 Sosha Makani (diff | hist) .. (+1) .. Perspilos-ghermez (talk | contribs)

04:46 Córdoba CF (diff | hist) .. (+1) .. Materialscientist (talk | contribs) (Reverted edits by 173.176.191.149 (talk) to last version by The Almighty Drill)

04:46 USNS Coastal Crusader (T-AGM-16) (diff | hist) .. (+770) .. Pennsy22 (talk | contribs) (expanded, fixed DANFS link)
Part 3.5: Feminist HCI inspiration

Critique → Design
“Subjective Algorithms”
"algorithms, often aided by big data, now make decisions in subjective realms where there is no right decision, and no anchor with which to judge outcomes."

"algorithms, often aided by big data, now make decisions in subjective realms where there is no right decision, and no anchor with which to judge outcomes."


What is good? relevant? important? desirable? valuable?
is_anon
chrs_added
chrs_removed
cust_comment
repeated_chrs
longest_token
badwords_added

Good.

BAD!
Good.
and some important bad stuff

BAD!
and some important good stuff
Please exercise *extreme caution* to avoid encoding racism or other biases into an AI scheme. For example, there are some editors who have a major bias against having articles on every village in Pakistan, even though we have articles on every village in the U. S. Any trace of the local writing style, like saying "beautiful village", or naming prominent local families, becomes the object of ridicule for these people. Others can object to that, however. But AI (especially neural networks, but any little-studied code really) offers the last bastion of privacy. It's a place for making decisions and *never mind anybody how that decision was decided*. My feeling is that editors should keep a healthy skepticism - this was a project meant to be written, and reviewed, by people. Wnt (talk) 12:58, 20 February 2015 (UTC)

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*“beautiful village”* **BAD!**

and edits to Pakistan Villages
“Feedback”

Reverted/Not reverted

“beautiful village”

BAD!
and edits to Pakistan Villages
“Feedback”

Reverted/Not reverted

"beautiful village"

BAD!
and edits to Pakistan Villages
"Feedback"

Reverted/Not reverted

"beautiful village"

Pakistan
Villages
Empowerment vs. Power over
Empowerment vs. Power over

“hearing to speech” vs. “speaking first to be heard”
“hearing to speech” -- I’ll want to hear what you have to say.

“speaking first to be heard” -- I want to set the tone of our conversation by talking first.
“Conversations” about algorithms

- BA & PhD in Computer Science
- My managers give me space  (Toby & Dario <3)
- Software engineering background (~3 years)
- Psychology and Social science background
I think we should talk about damaging/not-damaging.
I think we should talk about damaging/not-damaging.

I think we should talk about <something else>.
• Re-labeling of damage protects against “feedback”
Re-labeling of damage protects against “feedback”

Generalized “labeling” system eases the construction of new classifiers (to “hear”)

2. Critique of algorithmic quality control

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3. Infrastructure for socio-technical change

2. Critique of algorithmic quality control

3. Infrastructure for socio-technical change
   ● Feminist HCI inspiration
Thanks!

Props to my collaborators
- User:He7d3r
- User:とある白い猫
- User:Ladsgroup
- User:Danilo.mac
- User:Staeiou