Everything you Know about Mobile is Wrong: Reading and Editing Pattern Variation Between User Types

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Disclaimer

The following presentation contains data visualisations and unrestrained speculation. It is not suitable for scientists, people with heart conditions, or people who take themselves or me too seriously.
- WMF researcher
- Wikipedian
- http://blog.ironholds.org
- Likes: Geolocation, Hadoop, R, long walks in the park
- Dislikes: unquoted TSVs, other peoples' Python, haters
Did you say...geolocation?

- Yes, mysterious voice from the sky! Geolocation!
- Have pygeoip, will travel
- Country code, region, city
So we can do things like this!
I have a bad feeling about this

- (You aren't gonna say you have a bad feeling about this, are you? I hate it when you say that)
- Strong privacy protections
- Only accessible to NDAd staffers
- No release of raw results
- Oliver's Law of Geodata:

  *If your dataset is granular enough for me to hit someone's house with a drone...it's too granular.*
What if we could get more than just where the user lived?

- What if we could get....
- *puts pinky to lip*
- When they lived?!
- As well as country/city, we can get timezone
- Filter by metadata, look for interesting variations, Robert is ambiguously either your father or mother's brother.
Reader variations

- When do people read?
- Requests for text/html pages in August 2014
- 3.8m total observations
Read actions, globally, in local time

Action patterns for readers
1291410 minimum sample size

% of requests

Hour

desktop
mobile
Action patterns for readers on weekdays
830935 minimum sample size

Weekday read actions, globally, in local time
Weekend read actions, globally, in local time

Action patterns for readers on weekends
460475 minimum sample size

% of requests

0% 2% 4% 6%

Hour

desktop
mobile
Reader conclusions

- Mostly that mobile stereotypes are true
Editor variations

- When do people, uh. Edit?
- All edit actions, last 90 days, minus bots
- 22m total observations
Edit actions, globally, in local time

Action patterns for editors
473227 minimum sample size

% of requests

3.0% 3.5% 4.0% 4.5% 5.0%

Hour

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

desktop
mobile
Weekday edit actions, globally, in local time

Action patterns for editors on weekdays
348847 minimum sample size

% of requests vs Hour

- Desktop
- Mobile

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Weekend edit actions, globally, in local time

Action patterns for editors on weekends
124380 minimum sample size

% of requests

desktop
mobile

% of requests

Hour
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Edits from users with <=10 edits

Edit actions, editors with <10 edits
159677 minimum sample size

% of requests

Hour

desktop
mobile
Edit actions, editors with <100 edits
287099 minimum sample size

Edits from users with <=100 edits
Edits from users with >100 edits

Edit actions, editors with >100 edits
186827 minimum sample size

% of requests

Hour

desktop
mobile
Editor conclusions

- Editors are weird
- More usefully: editor actions are not like reader actions
- Editor actions are remarkably consistent across different experience levels.
Bonus funtime data...

*drumroll*
Donor variations

'Could I have some data?'
'Well, the NDA allows it, but gathering it sounds like a pain'
'Not a legal problem? Cool! *grabs from request logs*

• Hits to donate.wikimedia.org
• 380k observations (not great!)
• Donations through the sidebar
• Donations through email campaigns
donate.wiki hits, globally, in local time

Action patterns for donors
27668 minimum sample size

% of requests

Hour

email
sidebar
Weekday donate.wiki hits, globally, in local time

Action patterns for donors on weekdays
25023 minimum sample size

% of requests

0% 5% 10% 15%

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

Hour

email
sidebar

25023 minimum sample size
Weekday donate.wiki hits, globally, in local time

Action patterns for donors on weekends
2645 minimum sample size

% of requests

Hour

% of requests

Hour

email

sidebar
Donor conclusions

- Donations do not follow read patterns
- People like responding to emails at 10am
Overall conclusions

- Understanding how different user classes behave is important!
- Our user classes don't seem to really intersect:
  - Readers are stereotypes
  - Editors are invariant
  - Donors are clearly unemployed because nobody should be that interested in something at 10am
Credits

Codebase and MOAR VISUALISATIONS: https://github.com/Ironholds/Circ (not clicking through this time)

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Questions?