

# Banner History Logging in CentralNotice

Recording Banner Displays while Respecting User Privacy



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# Requirement: More data on banner display history

- ▶ Users' actions in relation to banners depend on more than the actual content of banners.
- ▶ We know that a significant factor is the history and timing of banners seen (or not).
- ▶ Logs of banner displays contained very little data about this history.
- ▶ More data on this has the potential to lead to better targeting of banners, and so less banners shown in all.

# Some specific questions

- ▶ How effective is the large-banner-first approach?
- ▶ When does the cost of showing a client another banner outweigh the benefit of a possible donation?
- ▶ When does banner fatigue set in?

# Banner history system

- ▶ When enabled for a campaign, the banner history logger accumulates log entries in the user's browser, in LocalStorage.
- ▶ Main data items stored:
  - ▶ Campaign
  - ▶ Banner
  - ▶ Approximate time and date (reduced accuracy to protect privacy)
  - ▶ CentralNotice hide/show status
- ▶ Data *not* stored:
  - ▶ Any information about articles seen and user actions taken
  - ▶ User names, addresses or any unique identifiers



# Banner history and EventLogging

- ▶ A percentage of users (for now, 1%) are randomly selected to send their stored banner histories back to WMF servers using EventLogging.
- ▶ Banner histories are sent back for 100% of users who click on “Donate” on Fundraising banners.
- ▶ For users who click on “Donate”, a temporary unique ID is generated so we can correlate histories to donations. (Note: after a user clicks on “Donate” she or he is subject to a different privacy policy.)
- ▶ Also in this case, it should not be possible to correlate banner history with any data on wiki activity.

# Related improvements in CentralNotice

- ▶ Mixin system for running campaign-specific code before a banner is selected or shown.
- ▶ Minor changes in banner selection algorithm.
- ▶ Refactor of client-side CentralNotice code.
- ▶ Upcoming: Removal of Special:RecordImpression.