

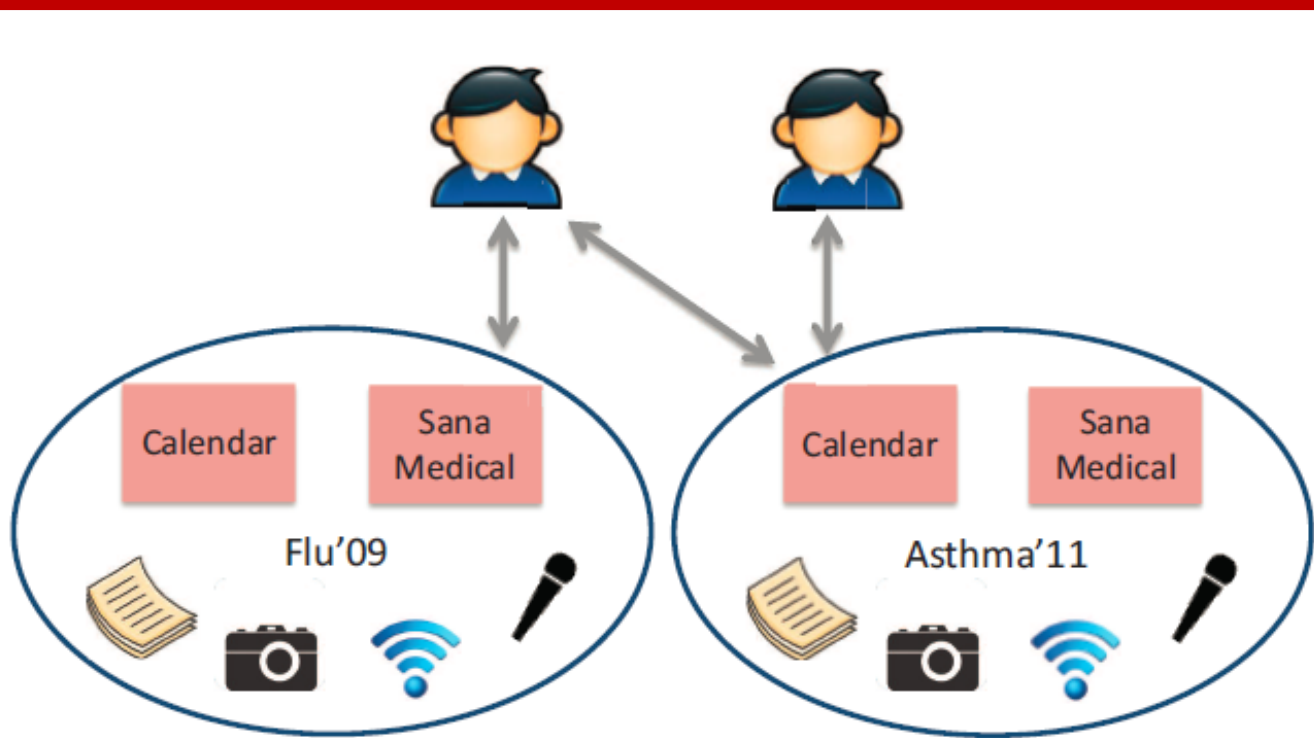
Cloud Storage Service Organization Study

Automatic creation of Bubbles from user data

Casen Hunger², Yehuda Katz¹, Michelle Mazurek¹, Ch. Papamanthou¹, Mohit Tiwari²

¹ University of Maryland / ² University of Texas at Austin

Bubbles



Bubbles represent real-world contexts that are potentially shared among multiple users, and around which users' data automatically clusters. Users' privacy policies can then be directly represented as an access-control list on bubbles. Applications and low-level peripherals then exist solely to provide functionality and cannot affect who sees the contents of a bubble.

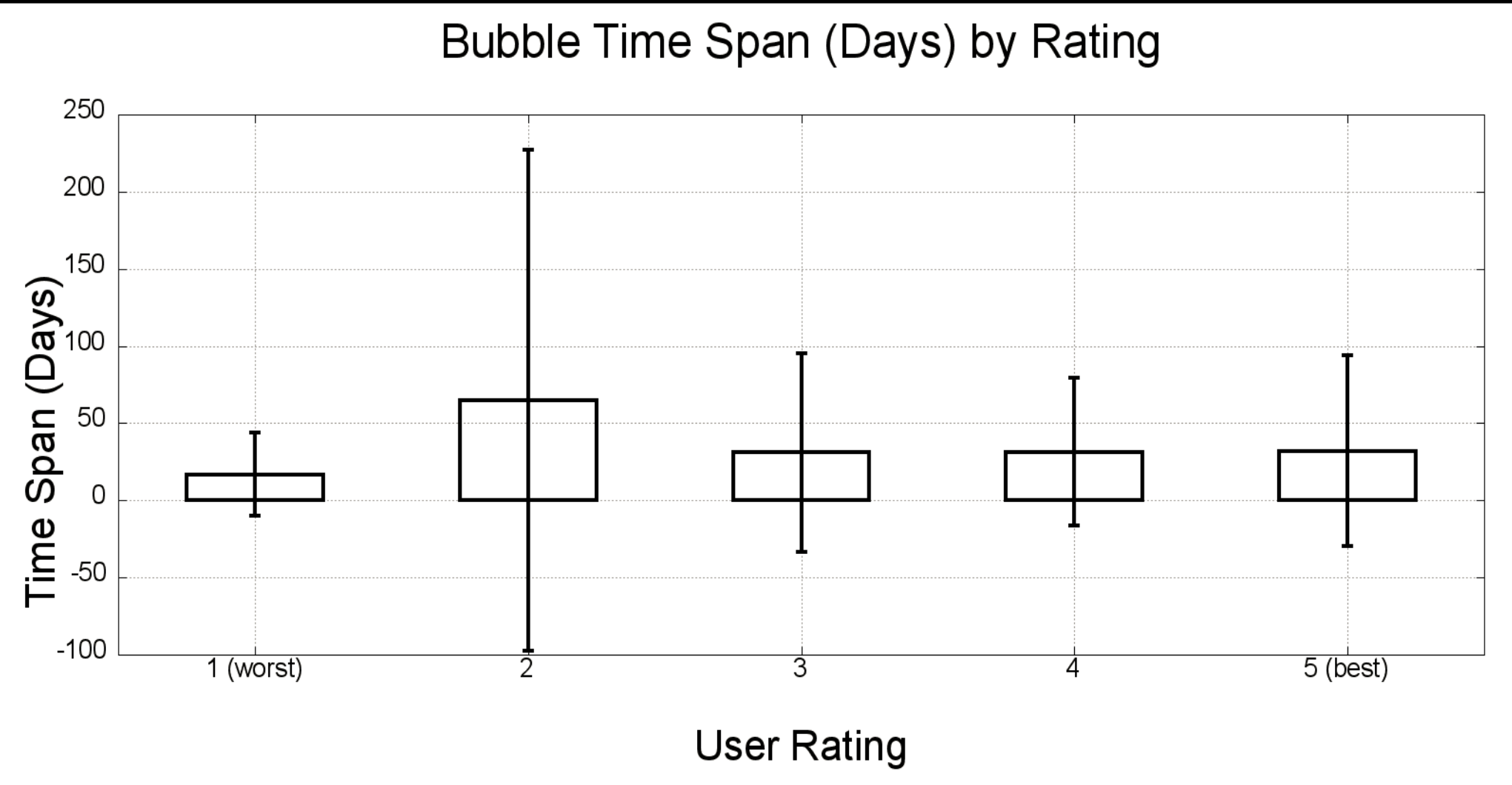
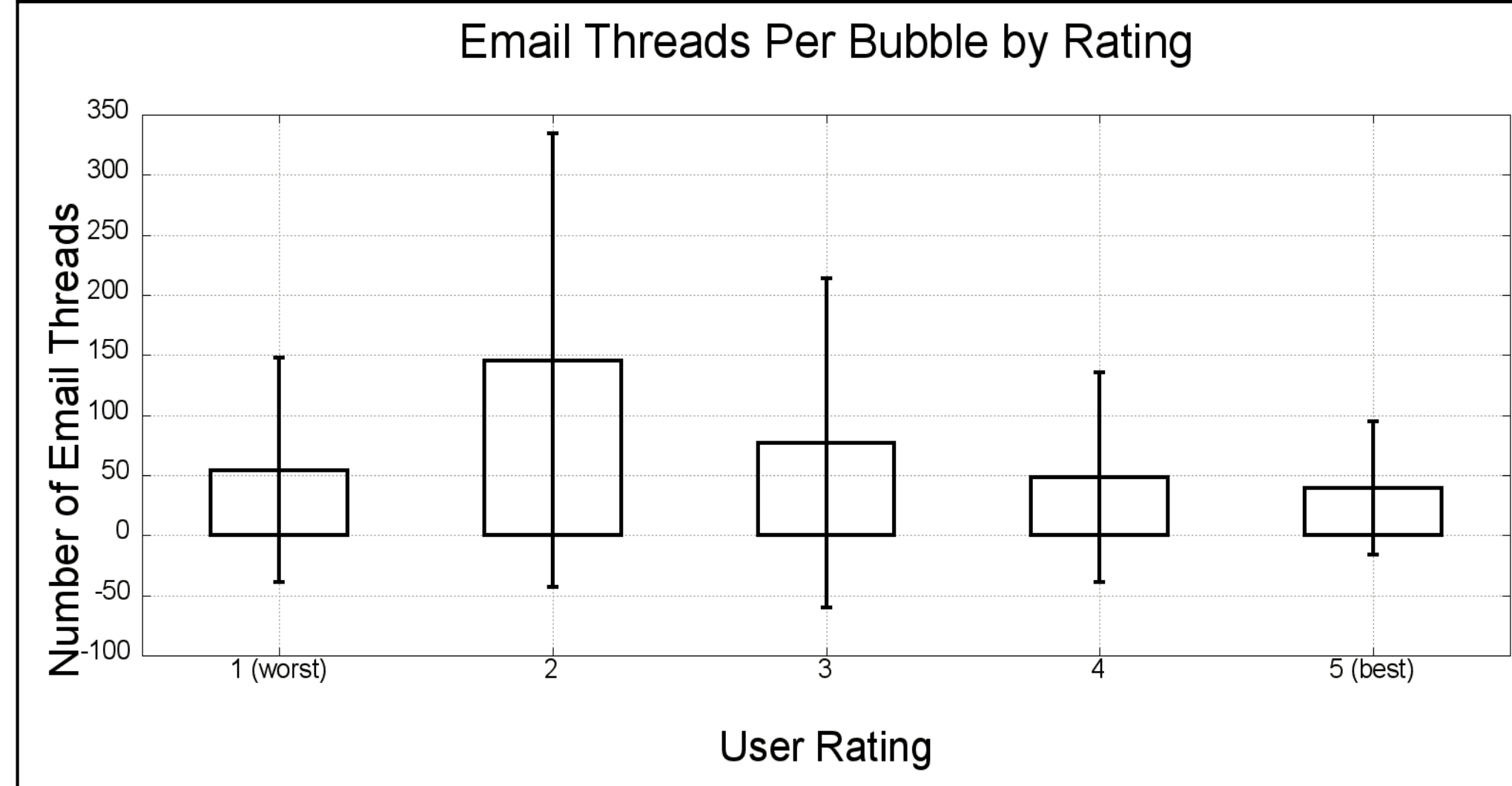
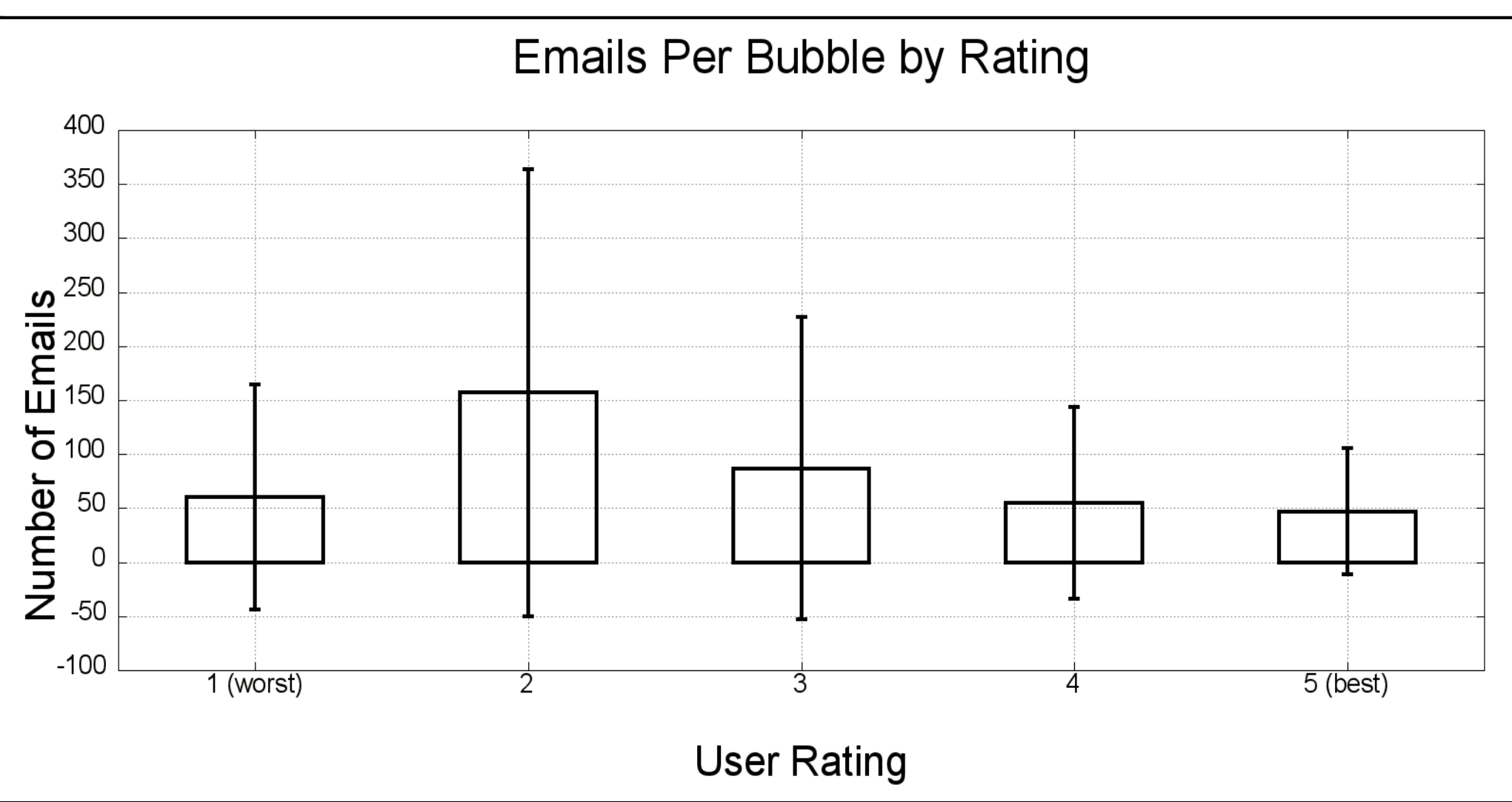
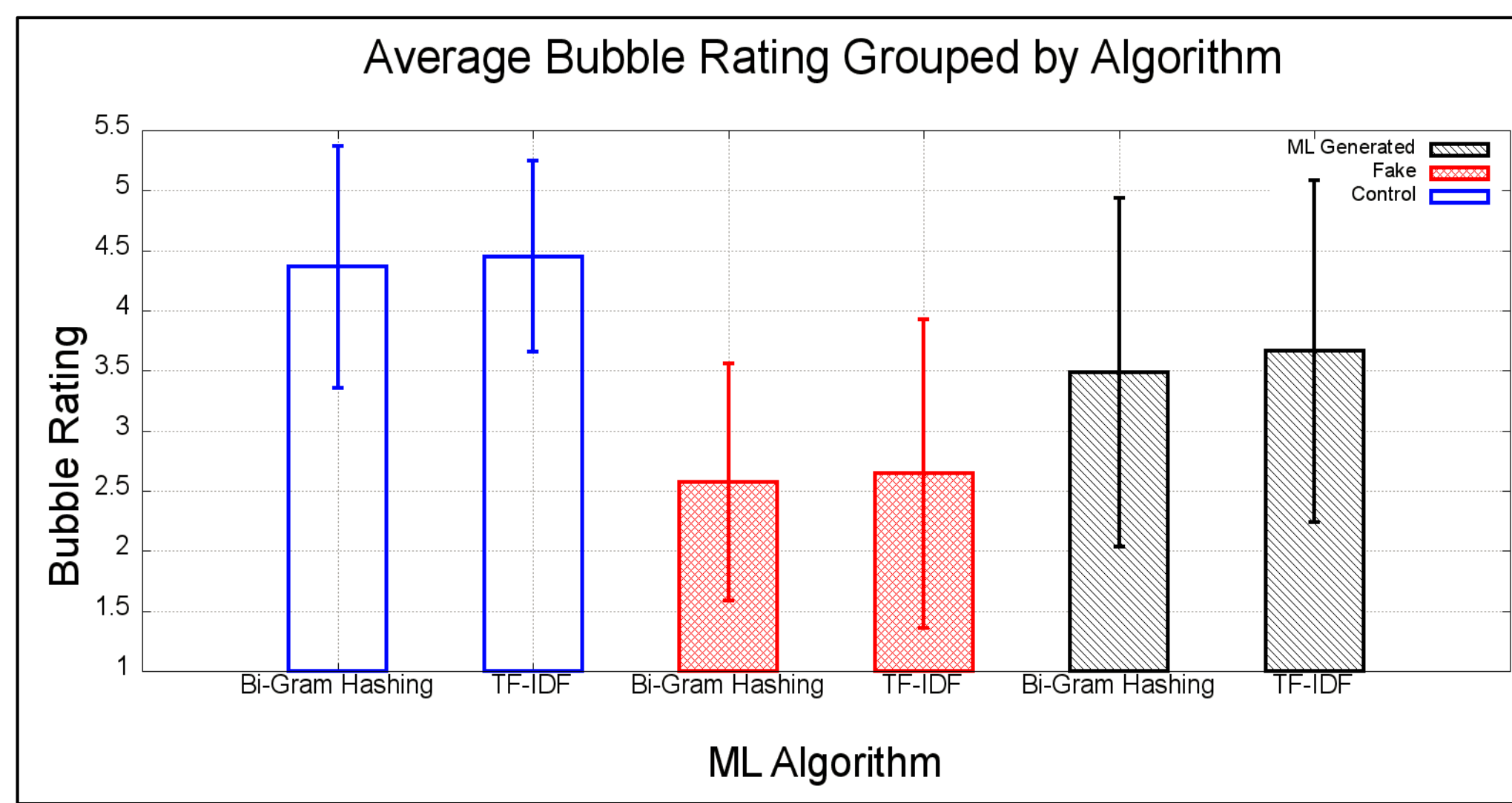
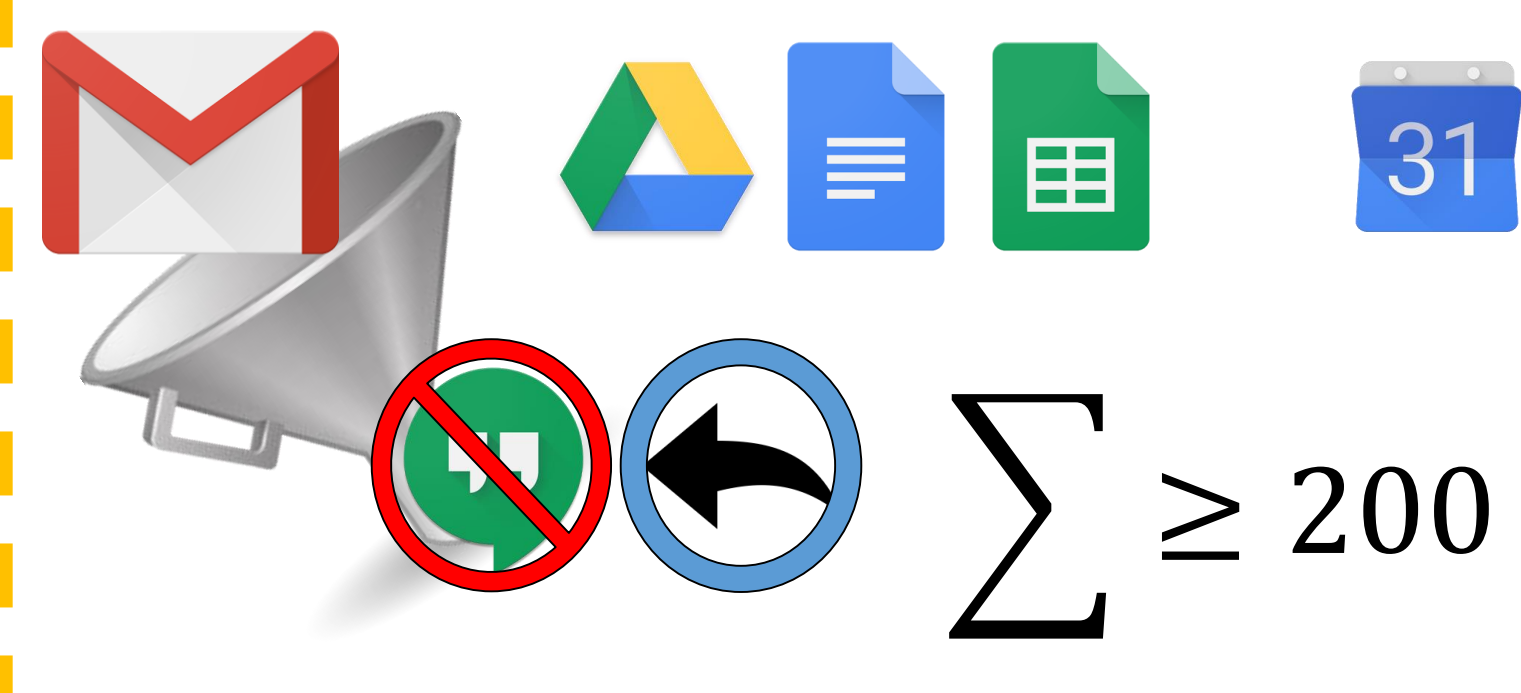
Mohit Tiwari, et. al. 2012. Context-centric security. In Proceedings of the 7th USENIX conference on Hot Topics in Security (HotSec'12). USENIX Association, Berkeley, CA, USA, 9-9.

Bubble Rating

- Choose one or more categories that this Bubble fits in
- Choose how each person is related to you
- For the whole group, rate how much you agree:
 - Contents fit together well
 - All on the same topic
 - All shared with the same people
 - Important content is missing from this group
 - Is the missing content older than the shown content?
 - If I were manually creating groups, this is a group I would create



- 18+ years old
- Google Account at least 3 months old
- At least 600 emails and
- 20 files in Google Drive
- Fluent in English
- Live in USA

Load and Filter Gmail, Drive and Calendar

- No chats or hangouts
- No email messages without replies

$\sum \geq 200$

Generated Bubbles #1-3

Randomly Generated and Control Bubbles

Rate each Bubble on Accuracy

Participants

300	128	106	91	75
Number of unique users accessing the study on Prolific Academic	Number of users who agreed to the consent form	Number of users who passed the initial eligibility check	Number of users who completed the entire study	Total number of usable responses