GhostPost

Seamless Restoration of Censored Social Media Posts

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Problem and Threat Model

Fighting the producer side of internet censorship

Users post on a platform controlled by the censor

Censor’s human employees examine (existing) posts, and delete some
System Overview

Record fated-for-deletion posts before they’re deleted

Harvesting done by users, for better coverage

Posts signed, so friends can trust friends’ reports

Chrome extension
Post Forging

Deleted posts are obtained by users telling us they used to be there

Anyone can claim anyone posted anything

Inherently no evidence!

Users sign posts; can verify friends’ reports
冷笑话精选
希望达到的生活状态//@同道大叔:这个需要时间去沉淀，希望你我都能做到。
10月27日 23:35
删除不迟于: 10月28日 10:04
(Self-verified!)

@思想聚焦
一个人最好的生活状态，是该看书时看书，该玩时尽情玩，看见优秀的人欣赏，看到落魄的人也不轻视，有自己的小生活和小情趣，不用去想改变世界，努力去活出自己。没人爱时专注自己，有人爱时，有能力拥抱彼此。
10月27日 23:14
删除不迟于: 10月28日 10:04

冷笑话精选
过生日，老爸亲手做了一个超酷的变形金刚蛋糕。天呐！！居然真的会变形，小朋友们要惊呆了！！O秒拍视频
10月27日 16:39
删除不迟于: 10月28日 10:04
(Self-verified!)
Naive Evaluation Metric: Restored Posts

Fraction of deleted posts that get restored

What about a post from

a user with 1 follower?

a user with 100,000 followers?

Not all posts are worth the same!
Evaluation Metric: Post-views

Post-views: number of users interested in a deleted post, summed over multiple posts

Number of posts recovered can be misleading

Resurrecting a post is pointless if nobody wanted to read it anyways
Evaluation

Capability of GhostPost networks of varying sizes to preserve deleted posts, against censors able to work at varying speeds.
Evaluation

How effectively GhostPost protects individual users’ posts, when 1% of weibo users use GhostPost, and censor averages 10 hours to delete posts.
Spread the Word!

https://salmon.cs.illinois.edu/ghostpost.html