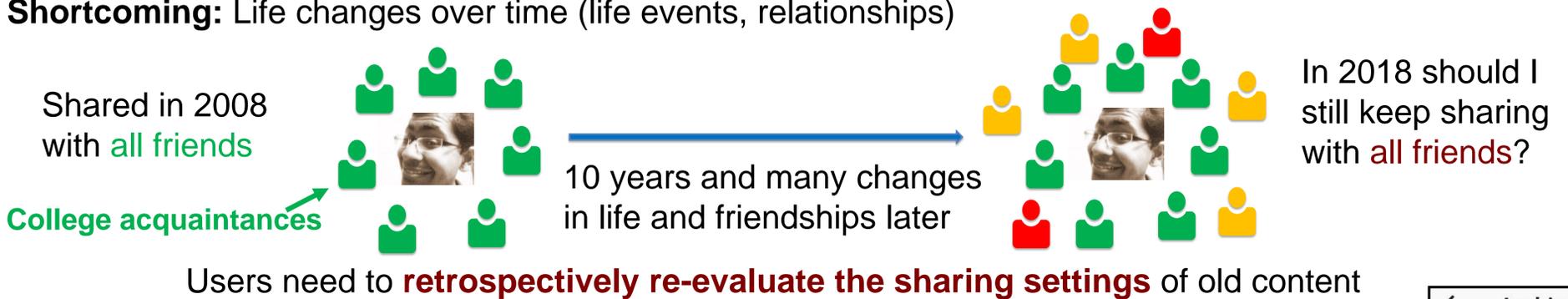


# Making Retrospective Data Management Usable

Noah Hirsch, Chris Kanich\*, Mohammad Taha Khan\*, Xuefeng Liu, Mainack Mondal, Michael Tang, Christopher Tran\*, Blase Ur, William Wang, Günce Su Yilmaz, Elena Zheleva\*  
 University of Chicago, \*University of Illinois at Chicago

## Motivation

Online archives (social media, cloud storage) accumulate hundreds of billions of posts and files  
**Current practice:** “set it and forget it” approach for access-control permissions and privacy settings  
**Shortcoming:** Life changes over time (life events, relationships)



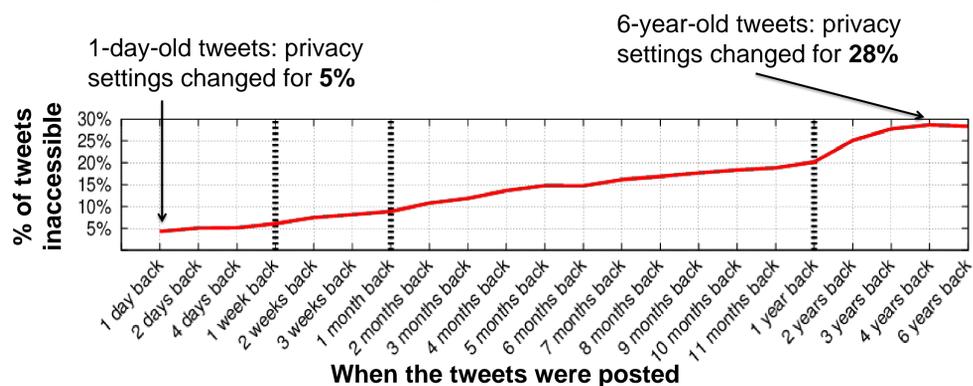
Multiple mechanisms exist for changing the past  
 Which mechanisms are suitable for which contexts?



## Challenges for improving retrospective data management

### Manual management is insufficient

Do users want to manage past data?



Yes, but only for some content [Mondal et al. 2016]  
 Moreover residual activities remain in system  
 Repercussions for shared content

Need **automated assistance** for better management

### Need to model sharing preferences

What are potential predictive features?

[Bauer et al., 2013, Ayalon et al., 2013]

Possible Feature	Explanation
Relationship	Relationship with those who can access the file or are connected to post changed
Life changes	Less willing to keep sharing content after some life events
Relevance	Less willing to share content no longer relevant to friends or colleagues

Developing these models requires:

- Collecting real-world data from users
- Investigating their privacy preferences
- Understanding temporal changes in preferences

## Our vision: Making retrospective data management usable

