What is Privacy?

- **Privacy** is an **interpersonal boundary process** by which a person or group regulates interaction with others by altering the degree of openness of the self to others (Altman 1975).
  - **Boundary mechanisms** are behaviors people use to achieve their desired level of privacy.

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The Environment and Social Behavior

Privacy · Personal Space · Territory · Crowding

Irwin Altman

"We should attempt to design responsive environments, which permit easy alternation between a state of separateness and a state of togetherness.

Environments that emphasize only either very little interaction or a great deal of interaction are . . . too static and will not be responsive to changing privacy needs." (Altman 1975)
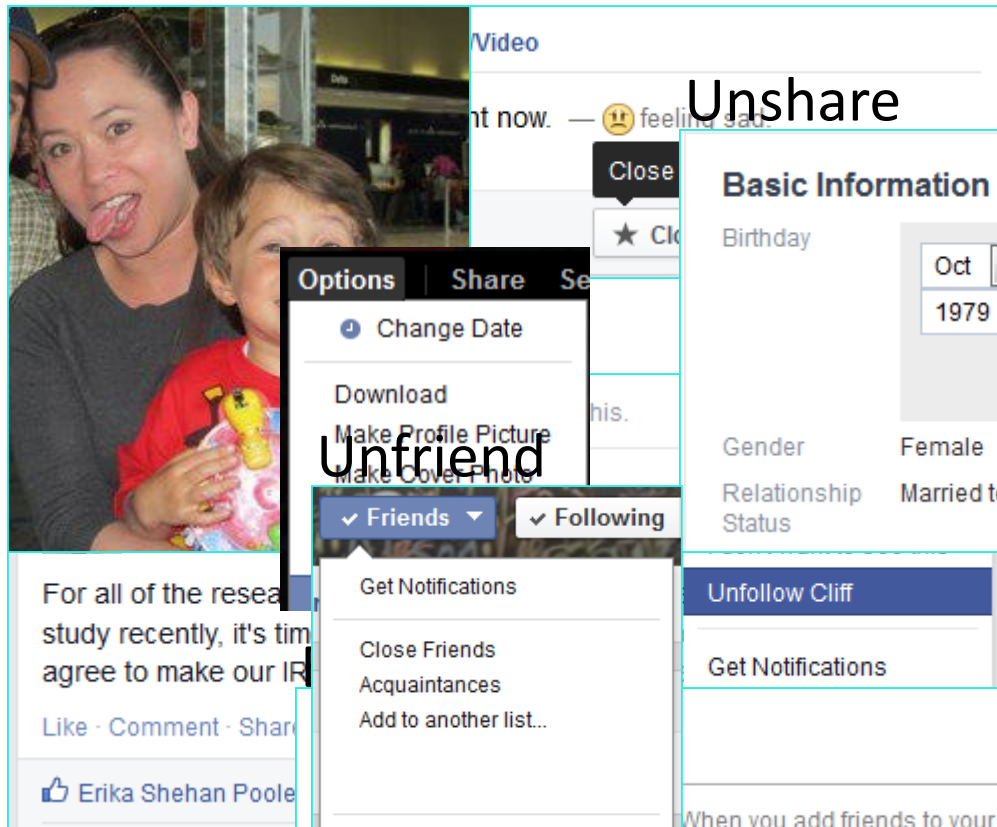
A New Era of "Frictionless Sharing"

"People have really gotten comfortable not only **sharing more information** and **different kinds**, but more openly and with more people. **That social norm is just something that has evolved over time.**" (Zuckerberg 2010)
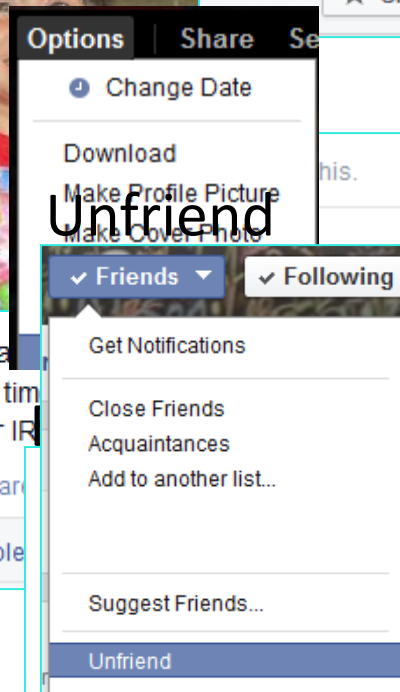
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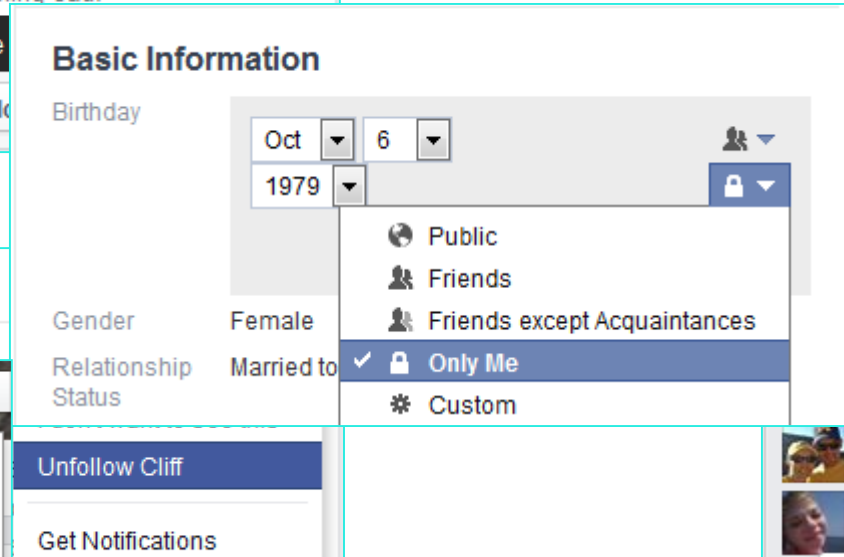AND COMPUTER SCIENCE

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A Myriad of Privacy Options
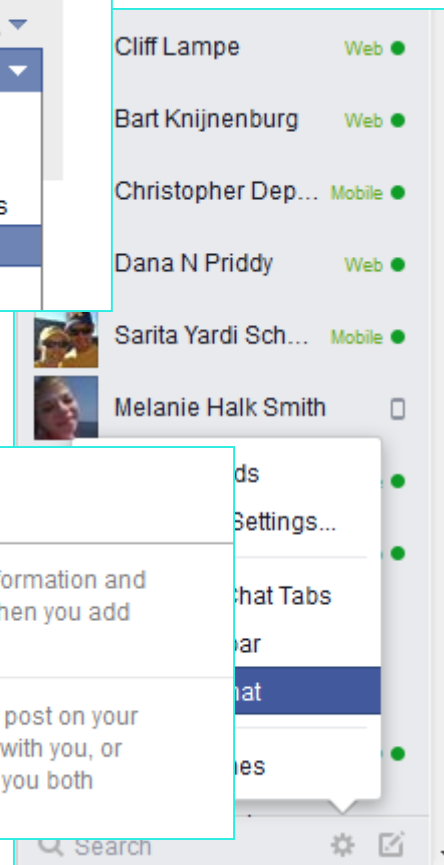

Untag

Timeline

Unshare

Unfriend

Privacy Settings

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Research: How Do People Manage Their Privacy on Social Networking Sites?

Wisniewski, P., Islam, N., Lipford, H.R., and Wilson, D.C. (2016) "**Framing and Measuring Multi-Dimensional Interpersonal Privacy Preferences of Social Networking Site Users**," Communications of the Association of Information Systems, 38, Article 10. http://aisel.aisnet.org/cais/vol38/iss1/10

Wisniewski, P., Knijnenburg, B.P., Lipford, H.R. (2017) "**Making Privacy Personal: Profiling Social Network Users to Inform Privacy Education and Nudging**," *International Journal of Human-Computer Studies*, 98(2017), pp. 95-108. doi: 10.1016/j.ijhcs.2016.09.006

User Studies on Social Networking Site Privacy

- **Semi-Structured Interviews: 21 SNS users**
  - Asked about how they managed social interactions and resolved conflicts with others in their social networks

- **Web-based survey: 308 SNS users**
  - Recruited participants 18-years-old or older with an active Facebook account
  - Asked to log into their accounts to report privacy behaviors

- **Privacy Behaviors:** The subset of privacy features and/or settings that Facebook users leverage in order to manage privacy boundaries
  - Includes but is not limited to personal disclosure decisions
  - Self-reported privacy settings, frequency of use, or count of behavior

Managing News Feed Example
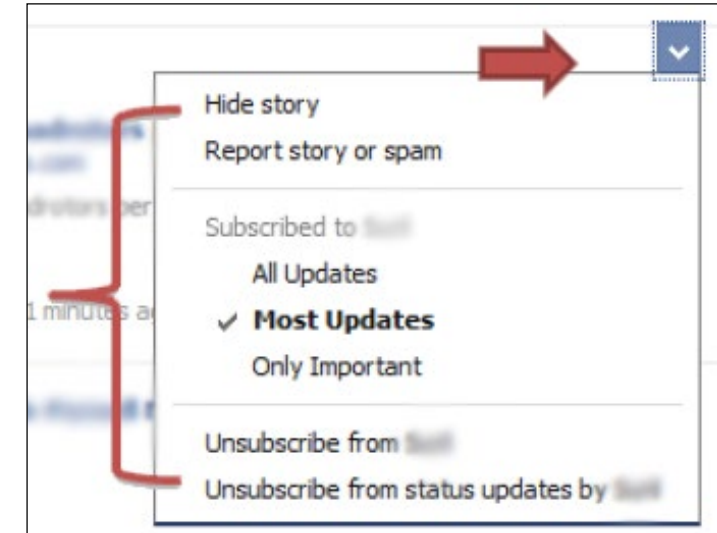
How often have you done the following to modify posts on your News Feed?"
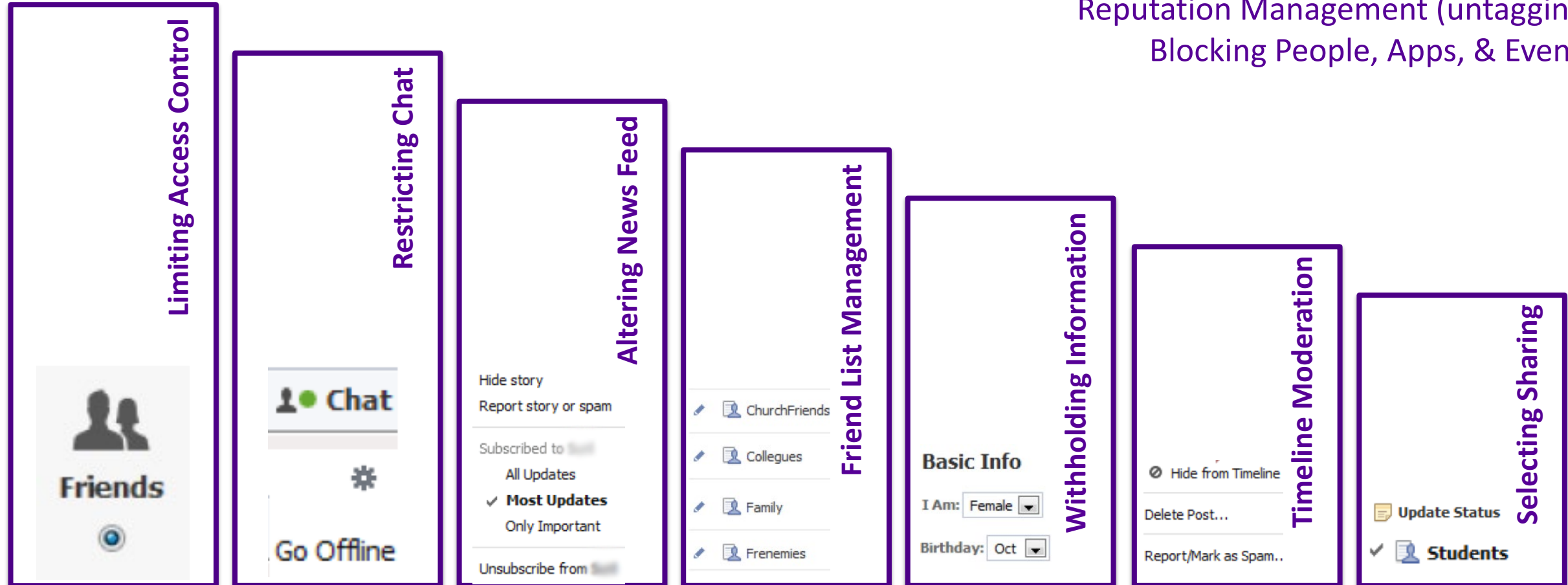- ➢ Hid a story
- ➢ Reported Story or Spam
- ➢ Changed friend subscription settings
- ➢ Unsubscribed from a friend
- ➢ Unsubscribed from status updates from a friend.

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Common Privacy Behaviors on Facebook

Most Common

Least Common

Reputation Management (untagging)
Blocking People, Apps, & Events

Limiting Access Control

Friends

Restricting Chat

Chat

Go Offline

Altering News Feed

Hide story
Report story or spam

Subscribed to
All Updates
✓ **Most Updates**
Only Important

Unsubscribe from

Friend List Management

✎ 👤 ChurchFriends
✎ 👤 Collegues
👤 Family
✎ 👤 Frenemies

Withholding Information

Basic Info
I Am: Female ▾
Birthday: Oct ▾

Timeline Moderation

⊘ Hide from Timeline
Delete Post...
Report/Mark as Spam..

Selecting Sharing

📝 Update Status
✓ 👤 **Students**

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Six Unique Privacy Management Profiles
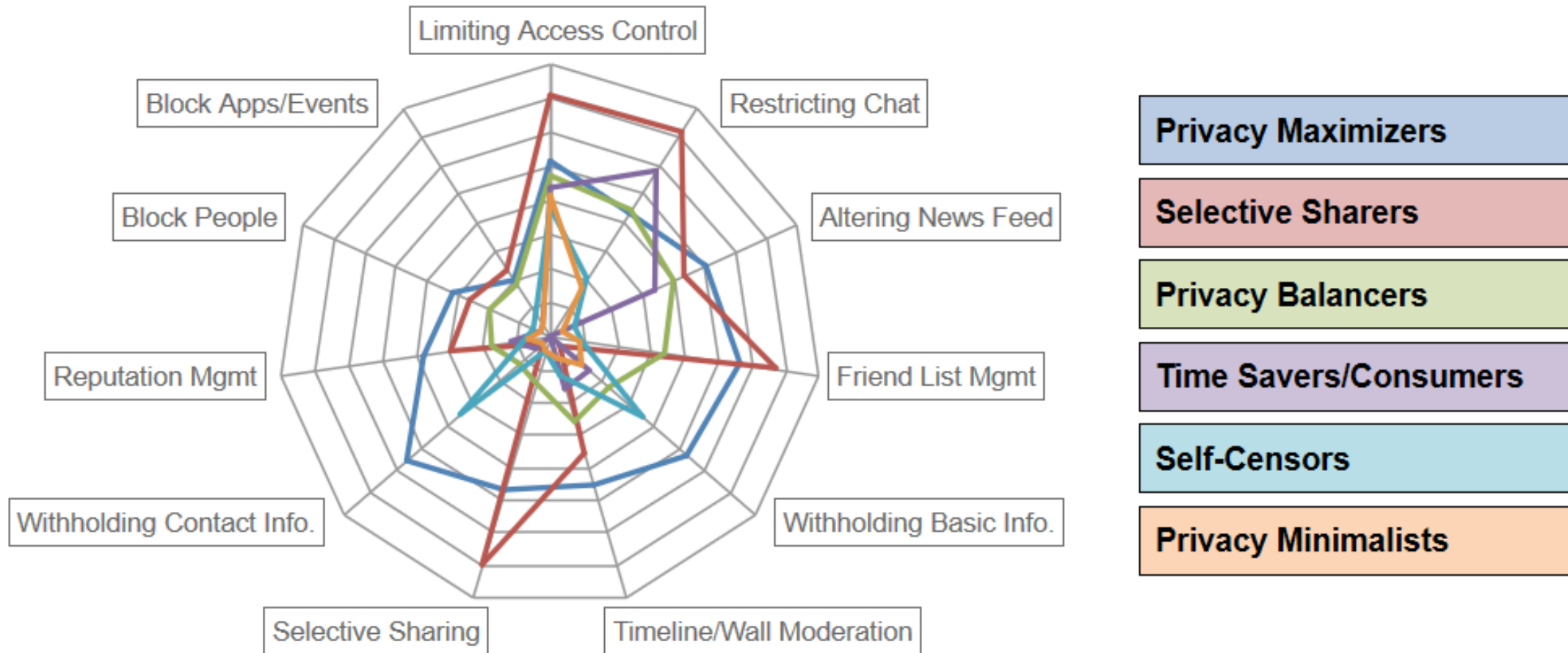
Interactive Visualization: http://www.usabart.nl/chart/

Privacy Maximizers to Minimizers

Limiting Access Control

A — Limiting Access Control
B — Restricting Chat
C — Altering News Feeds
D — Friend List Management
E — Withholding Basic Info
F — Timeline and Wall Moderation
G — Selective Sharing
H — Withholding Contact Info
I — Reputation Management
J — Block People
K — Block Apps and Events
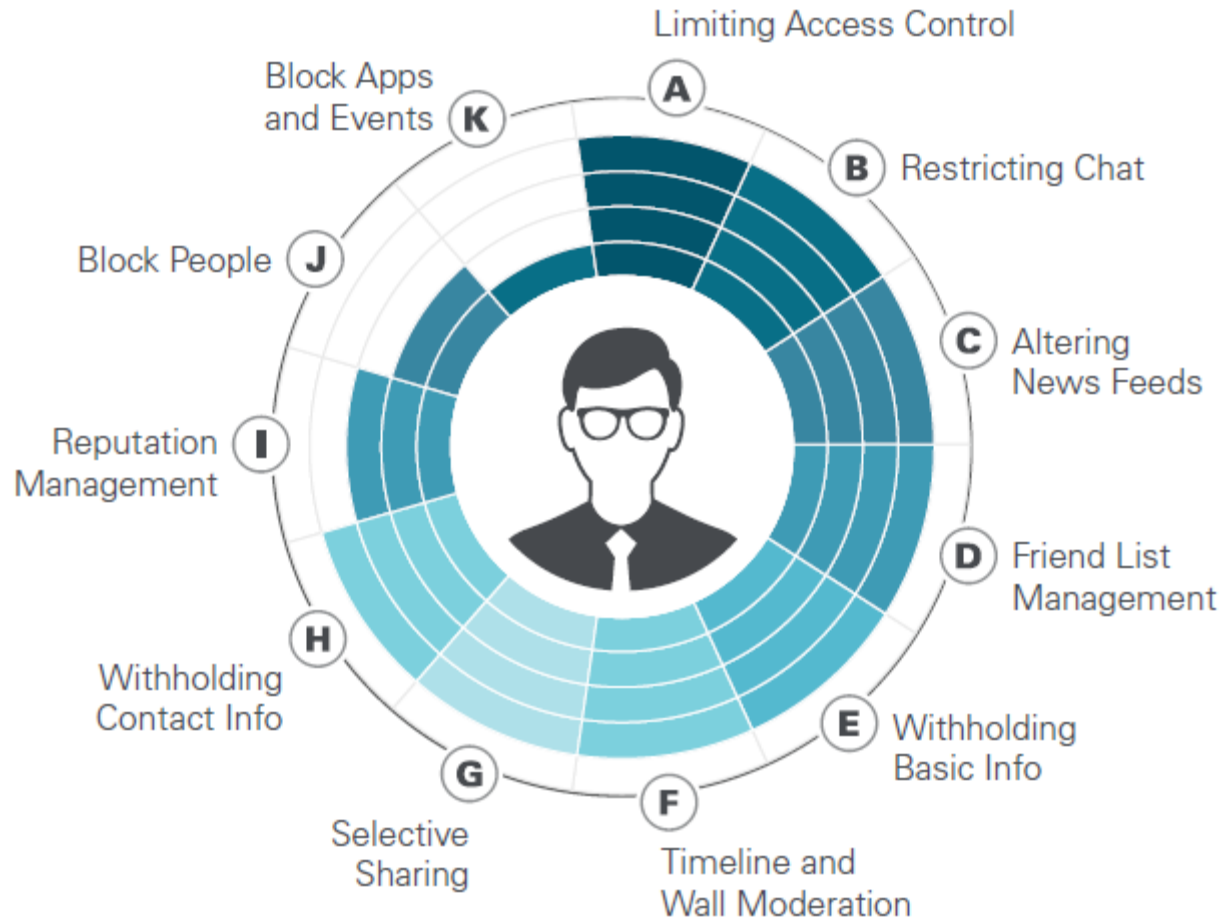
Privacy Maximizers (10%)
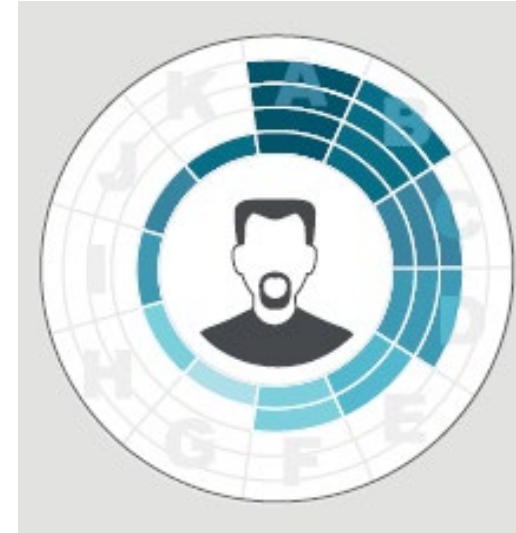
Privacy Balancers (36%)
-Largest profile
-Used common settings
-Did not engage with more advanced privacy controls

Privacy Minimalists (22%)
-Second largest profile
-Often unaware of advanced settings
-Exhibited some self-censorship

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Time Savers/Consumers (17%)

- Focused more on passive consumption

- Minimized distractions by restricting chat availability or altering News Feed

- Did some withholding, moderation, and reputation management

> *" I don't unfriend them but I just cut off their news feed. I hide their status updates from my news feed, and if I am that interested in what she is doing then I'll just go to her page and check her out."*
> –Tia, Administrative Assistant, 37

TIME SAVER
Use strategies to be passive consumers, not bothered by others

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Self-Censor Profile (11%)

- These SNS users often mistrusted access level controls to work as expected

- As a result, they managed their privacy through self-censorship, which often made them feel socially disconnected from others

> *"I may show my marriage status, and that's about it. I just don't provide [personal information] through the social network with any more information than I would give a stranger."*
> *–Larry, Software Engineer, 54*

SELF-CENSOR
Censors by withholding basic and contact information

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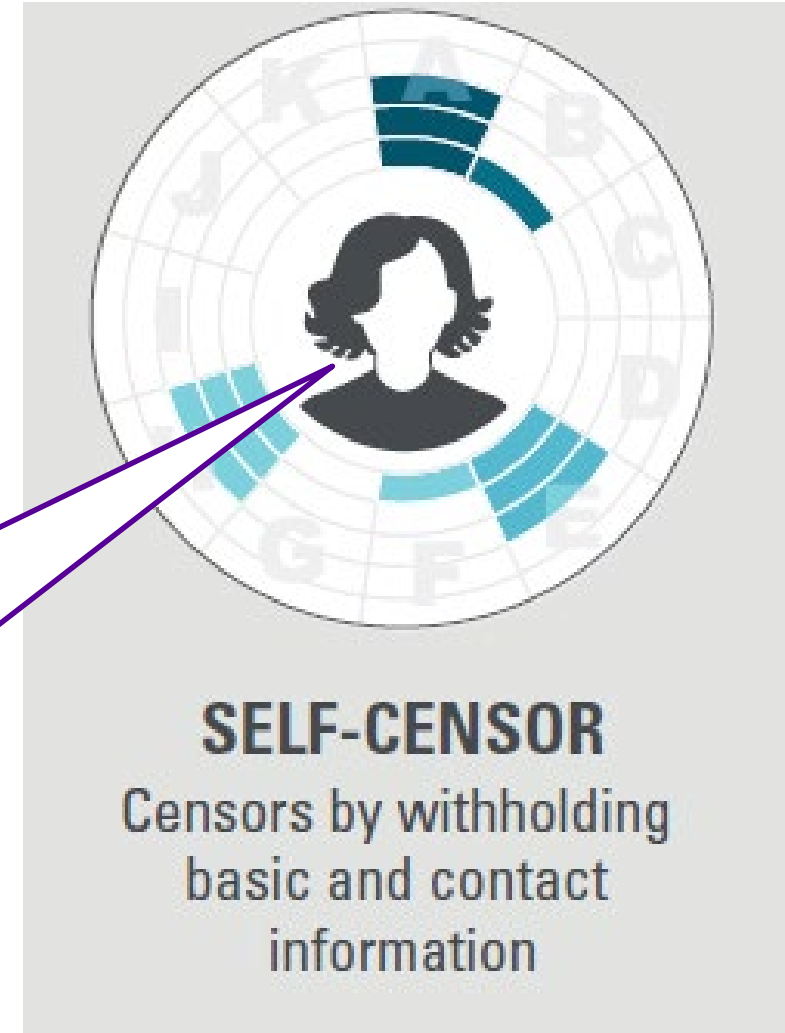
Selective Sharer Profile (5%)

- Instead of self-censoring, these SNS users shared content with selected groups of people

- However, with large networks this often became unmanageable

"My wife and I have had to make her father unable to see any of our photos of a niece, since she is black. [Her] dad is a horrible racist so his knowing about her would negatively affect her and no one deserves that."
–Allen, Technical Services, 31

SELECTIVE SHARER
Leverages more advanced privacy settings

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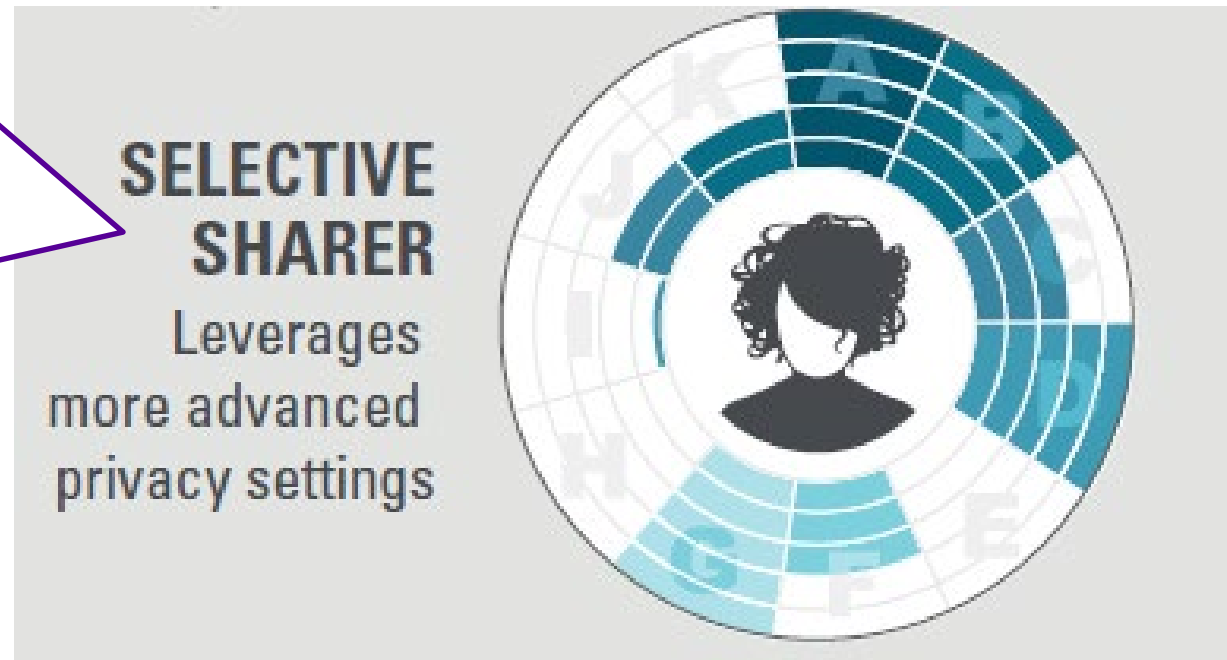
Key Implications

- **Privacy strategies extend *beyond* disclosure decisions**
  - Some privacy settings were leveraged more often than others
  - A spectrum from Privacy Minimalists to Maximizers
  - Self-Censors vs. Selective Sharers

- **SNS users employ different *subsets* of privacy features**
  - Exhibiting a multidimensional pattern from which emerged unique privacy management strategies
  - Privacy behaviors were often tied to physical groupings within the interface design

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Key Implications Continued . . .

- **Privacy behavior *frequency of use* provides valuable insights**
  - Low use highlights opportunities for privacy redesign and/or user education (i.e. *Friend List Management vs. Selective Sharing*)

- **Profiling users offers new *opportunities***
  - user-centered privacy design, privacy personalization, intelligent user-interface (IUI) design, notifications, recommendations, and nudging

- **Next Steps**
  - Develop a better understanding of antecedents and outcomes associated with various privacy profiles

Applying the Research

- **Privacy is NOT a binary decision** between disclosing and not disclosing information with others
  - Different people manage their privacy in different ways

- Users can simultaneously **share personal information** and have a distinct **privacy management strategy**
  - It doesn't have to be a zero-sum game

- Give users **multiple ways** to manage both their **information privacy** and **interpersonal boundaries** with others
  - Facilitate a personalized experience for different users

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