

Understanding How People Share Passwords

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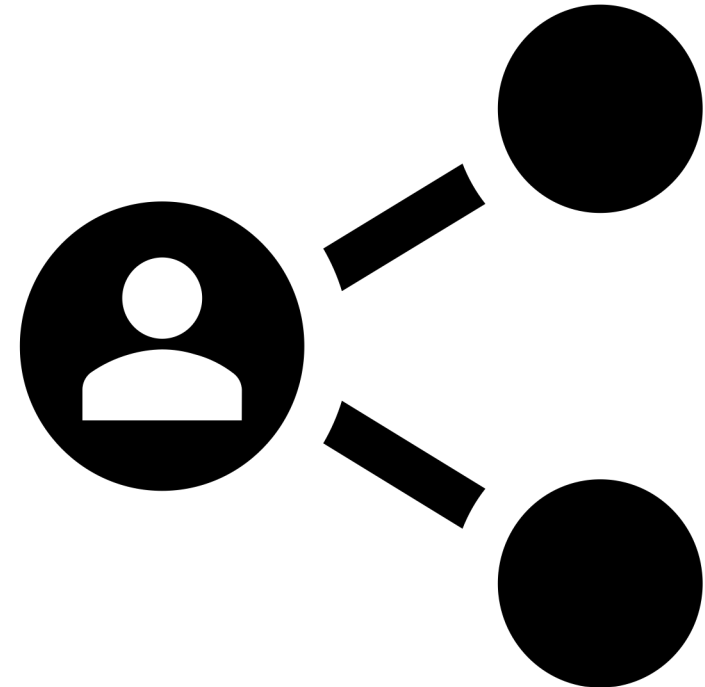


Password sharing is commonplace



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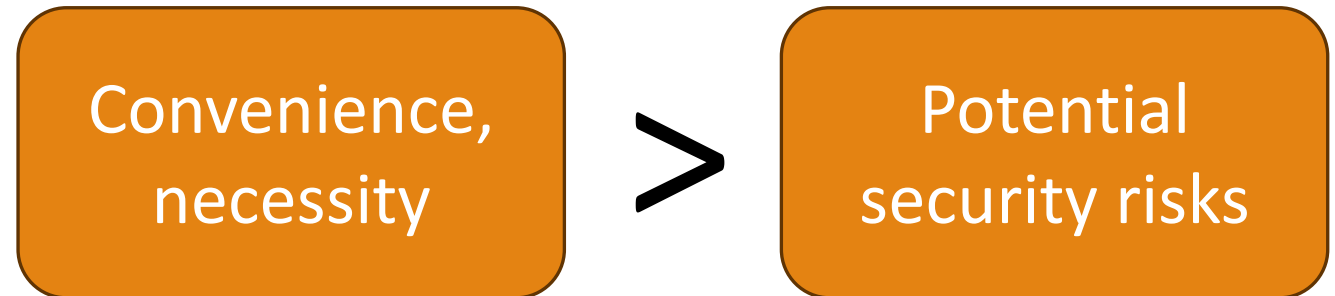
- People share passwords for:
 - Convenience
 - Finances
 - Work
 - ... and more!



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For users:



What do we do about password sharing?

Let's understand how people make shared passwords.


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Work towards safer sharing practices

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Who makes
shared
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- U.S. census-representative sample (n = 300)
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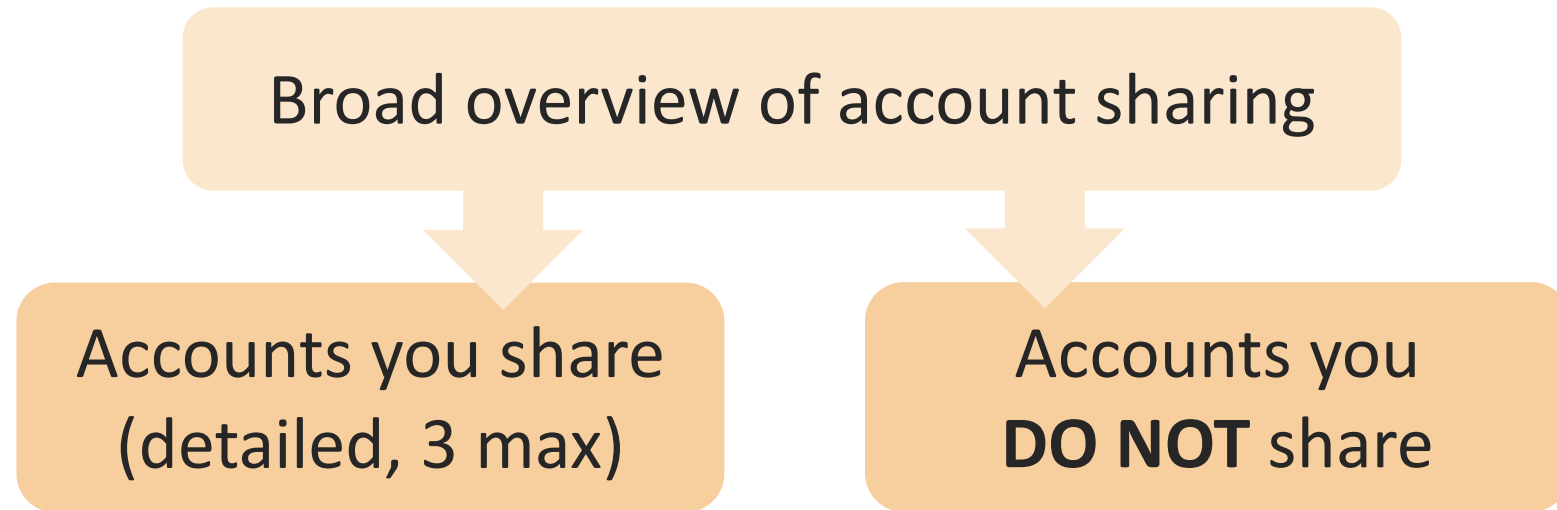
Survey methodology

- U.S. census-representative sample (n = 300)
 - Online recruitment via Prolific
 - Sharing norms/expectations vary across cultures
- We did **not** ask participants for their passwords

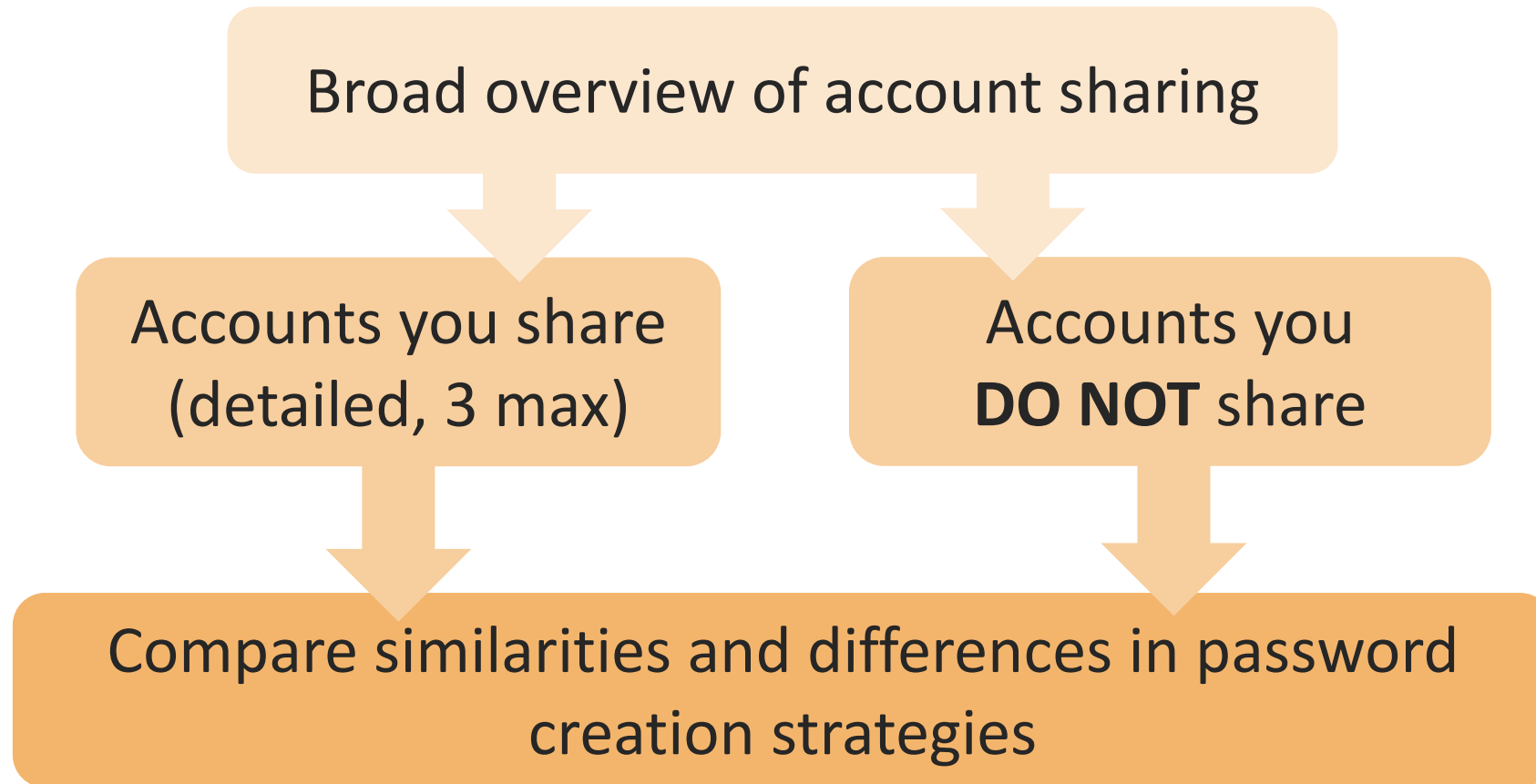
Survey flow

Broad overview of account sharing

Survey flow



Survey flow



RQ0: What accounts do people share?

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Share at least one of...

- **Streaming (91%)**
- Shopping (42%)
- Finances (11%)

Median 3 accts/participant

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Shared with...

- Partners (38%)
- Children (21%)
- Parents (16%)

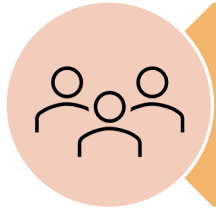
Median 3 total users/acct

RQ1: Who makes shared passwords?

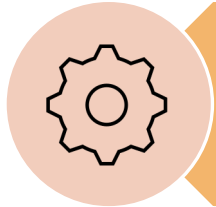
RQ1: Who makes shared passwords?



Individuals (89%)



Collaboration (5%)



Password Generator (4%)

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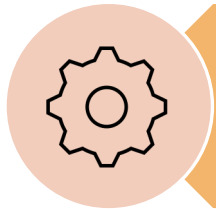
Individuals (89%)



- Account owners
- Pays for account
- Originally created account



Collaboration (5%)



Password Generator (4%)

Non-owners are rarely involved in password-making (< 5%).

RQ2: What are password-makers doing?

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- **Similar** pressures and strategies in shared accounts as single-user accounts.

Too many
passwords!



Effort-rationing

- Memorable passwords
- Meaningful information in passwords
- Reused passwords

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Shopping account, Participant 96

“security was mildly important, but mostly I wanted an older not-so-computer-savvy relative to be able to enter it correctly.”

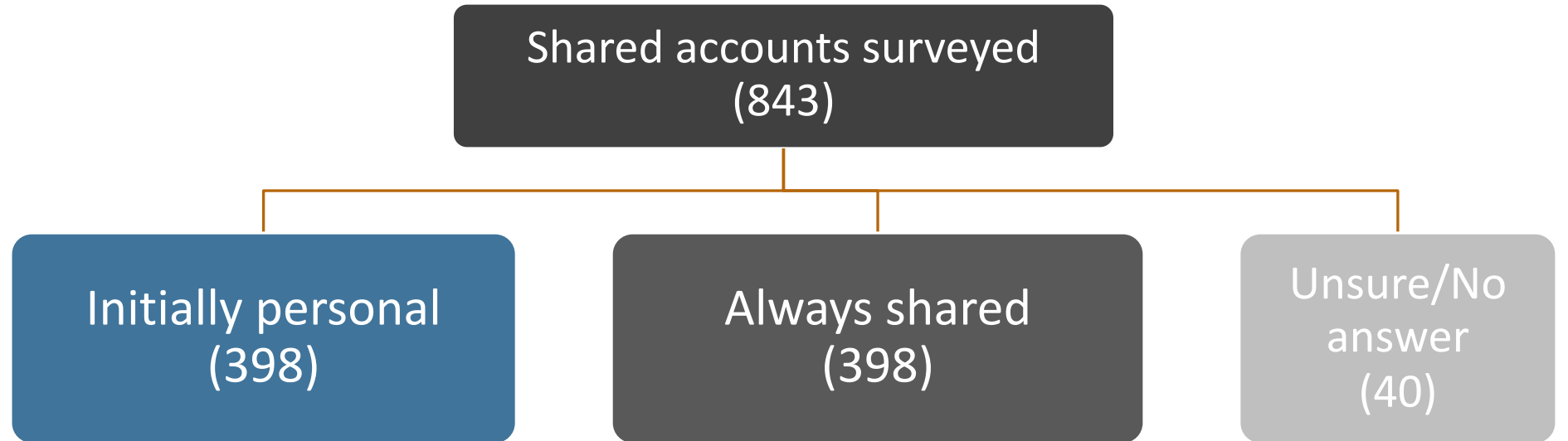
Password transmission mechanisms

Mechanism	Count	Percent
Verbal	489	58.0%
E-mail/text/IM	332	39.4%
Manually entered for recipient	27	3.2%
Written on physical document	24	2.8%
Via password manager	17	2.0%

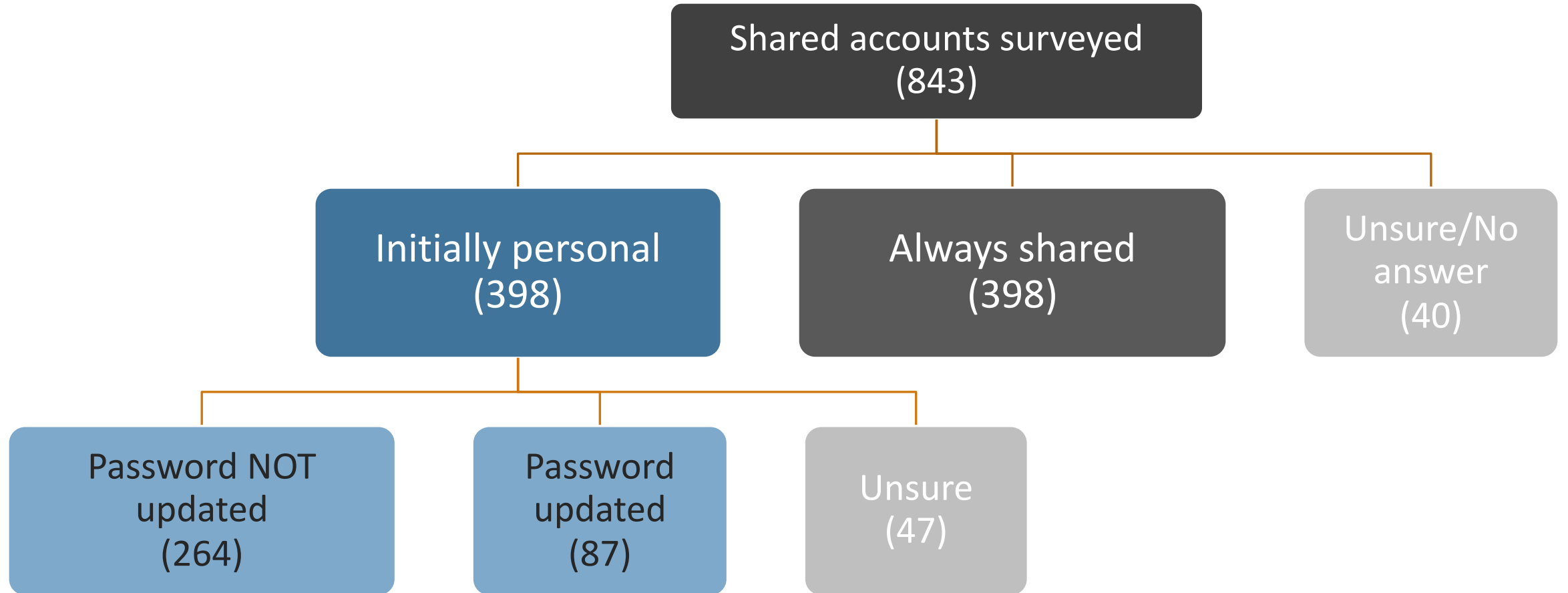
Origins of shared accounts

Shared accounts surveyed
(843)

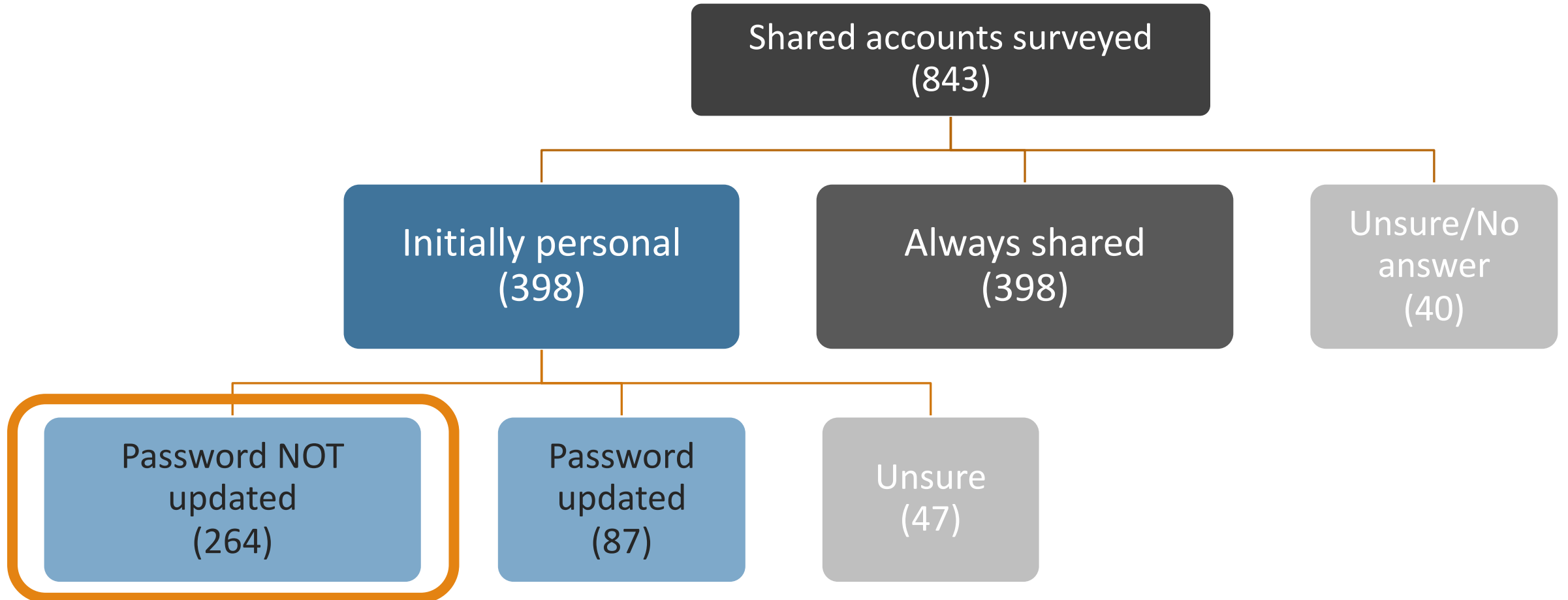
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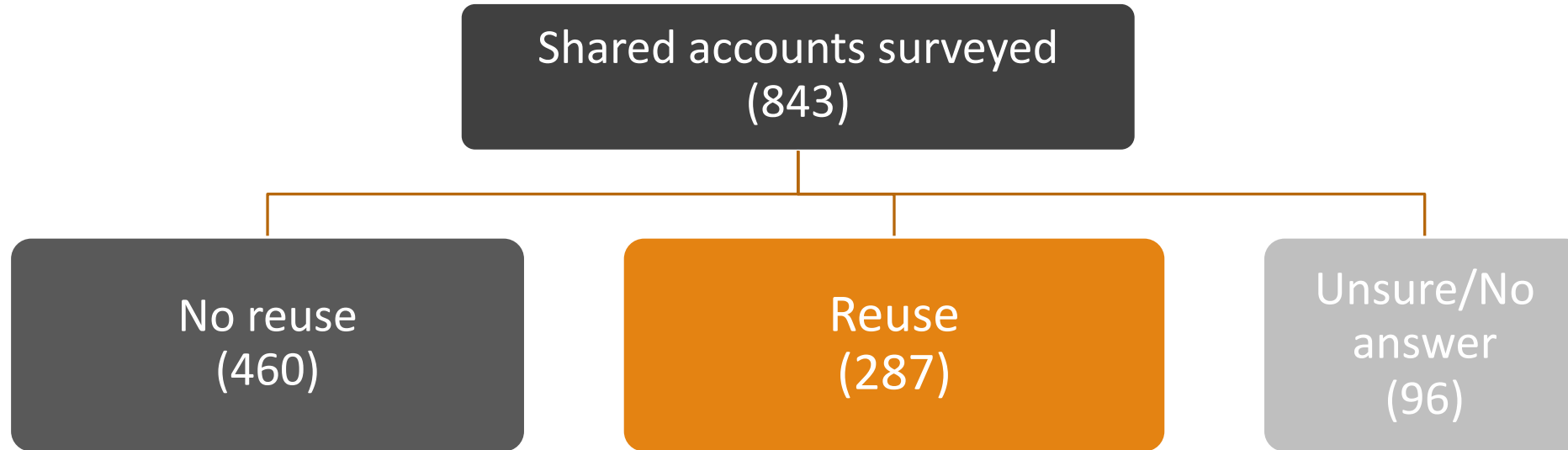
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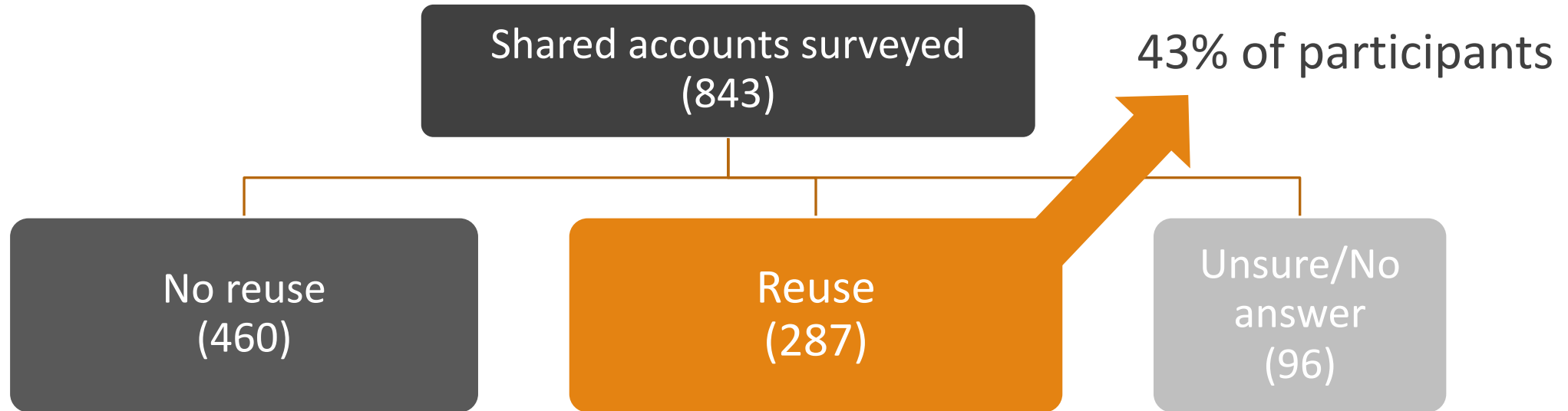
RQ3: Are shared passwords reused? Where?

Shared accounts surveyed
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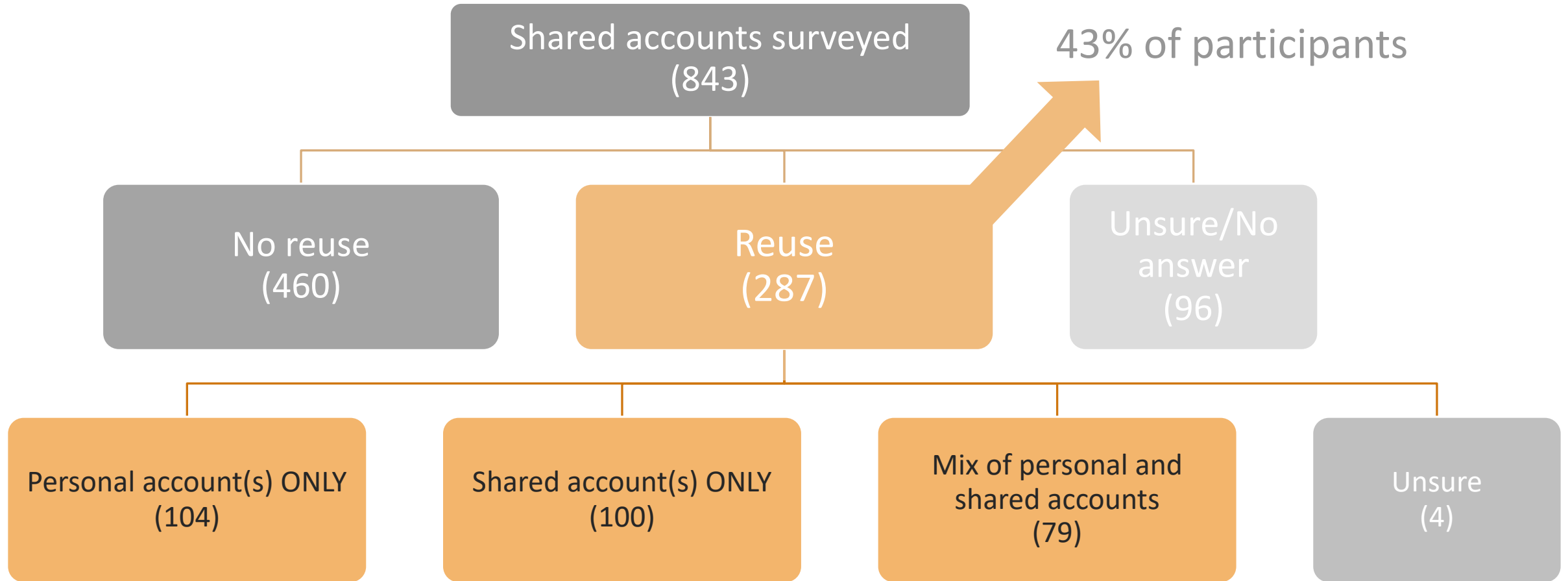
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“Family” passwords
(Multiple accounts: same people, same password)



Personal account(s) ONLY
(104)

Shared account(s) ONLY
(100)

Mix of personal and
shared accounts
(79)

What do we do about password sharing?

* Beyond just telling users to stop reusing passwords

User-side solutions:

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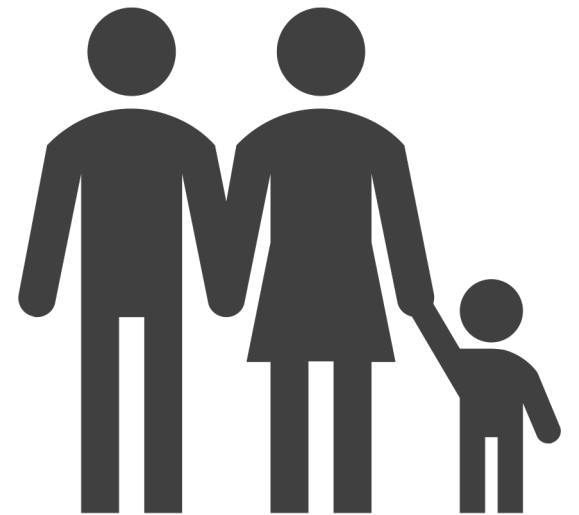
User-side solutions:

- Password managers for sharing
- Usability of sharing features?



What do we do about password sharing?

- Reliance on trust to maintain security:
 - What do we do when trust breaks down?
 - When relationships change but don't end?
 - i.e. kids move out



Summary

Individuals make shared passwords

- Collaboration is rare
- But, other users can influence passwords
 - Via usability concerns, intent to share
 - Exacerbated usability/security tension

Password reuse is common across shared/personal contexts



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