WHY OLDER ADULTS (DON’T) USE PASSWORD MANAGERS

Hirak Ray (UMBC)  Flynn Wolf (UMBC)  Ravi Kuber (UMBC)  Adam J. Aviv (GWU)
hirakr1@umbc.edu  flynn.wolf@umbc.edu  rkuber@umbc.edu  aaviv@gwu.edu
MOTIVATION

• Low adoption rate of password managers (PM). [1]

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• Older adults also express the necessity of convenience and privacy. [2]

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• Older adults also express the necessity of convenience and privacy. [2]
• Declining levels of physical dexterity and cognitive prowess. [3]

What are the challenges faced (or) barriers impacting adoption of password managers for older adults?
RESEARCH QUESTIONS

What are the challenges faced (or) barriers impacting adoption of password managers for older adults?

What are the adoption criteria for those older adults who currently adopt password managers?
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What are the adoption criteria for those older adults who currently adopt password managers?

What are the differences and similarities of the above with that of a younger population?
Replication of elements in Pearman et al.’s study

STUDY DESIGN

• Used Pearman et al.’s interview protocol.

• 26 semi-structured interviews (age > 60).
  • 30 minutes for non-PM users, 45-60 minutes for built-in and installed PM users.

• Two state-operated senior centers.
  • Diverse socio-economic and educational backgrounds

• Inductive thematic coding with two coders.
# GROUPS OF PARTICIPANTS

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- Address Books
- Sticky Notes
- Business Cards
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INSTALLED PM USERS
Seven (7) participants
LastPass
KeePass
1Password
OUTLINE

• Barriers towards adoption of separately-installed PMs
  • Non-PM users
  • Built-in PM users
• Experiences of separately-installed PM users
• Adoption motivators for separately-installed PM users
BARRIERS TO INSTALLED PM ADOPTION
NON-PM USERS

• Cost-conscious – not worth paying for.

“When you’re on a fixed income, you’re counting your pennies. And you gotta see what’s important.”
BARRIERS TO INSTALLED PM ADOPTION
NON-PM USERS

• Cost-conscious – not worth paying for.

• Importance of control.

“When you’re on a fixed income, you’re counting your pennies. And you gotta see what’s important.”

“It’s simple. I always remember what a book is. And my book is safe. But you can take control of my phone.”
BARRIERS TO INSTALLED PM ADOPTION
NON-PM USERS

• Single point of failure.

“What if your computer or something is down, and all your passwords are stored, and you can't retrieve 'em?”
BARRIERS TO INSTALLED PM ADOPTION
NON-PM USERS

• Single point of failure.

• Not worth the time and effort.

“What if your computer or something is down, and all your passwords are stored, and you can’t retrieve ’em?”

“I’m not going to be making any more passwords now at my age.”
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BARRIERS TO INSTALLED PM ADOPTION
BUILT-IN PM USERS

• No strong incentives to change their routine.
  Less sense of urgency.

“I would have to be convinced that it is really beneficial to me in some way. Nothing has happened to me to motivate me to use a password manager.”
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BARRIERS TO INSTALLED PM ADOPTION
BUILT-IN PM USERS

• No strong incentives to change their routine.
  Less sense of urgency.

• Set-up process would be too cumbersome.

• Less trust in the security of PMs.

“I would have to be convinced that it is really beneficial to me in some way. Nothing has happened to me to motivate me to use a password manager.”

“They can hack into even the government so what is to say they can’t hack into a password manager?”
COMPARISON TO YOUNGER ADULTS

Older Adults
• Loved the autofill feature of built-in PMs.

Younger Adults (Pearman et al.’s Study)
• Loved the autofill feature of built-in PMs.
Older Adults

- Loved the autofill feature of built-in PMs.
- Aware of most features in installed PMs.

Younger Adults (Pearman et al.’s Study)

- Loved the autofill feature of built-in PMs.
- Unaware of certain features in installed PMs (such as password generation)
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EXPERIENCES OF SEPARATELY INSTALLED PM USERS

• Easy and simple set-up process.

“The website had a list of instructions on what to do. The instructions were very clear, and if I followed the steps as it was written, it was no problem.”
EXPERIENCES OF SEPARATELY INSTALLED PM USERS

• Easy and simple set-up process.

• Dislike and distrust the process of synchronization.

“The website had a list of instructions on what to do. The instructions were very clear, and if I followed the steps as it was written, it was no problem.”

“If they claim to be syncing passwords across all my devices, that means they are storing them somewhere outside my apartment.”
ADOPTION MOTIVATORS FOR SEPARATELY-INSTALLED PM USERS

- Recommended by family members.

“My son recommended it to me...I had a brief discussion with him on how to create my passwords and he helped me.”
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• Recommended by family members.

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ADOPTION MOTIVATORS FOR SEPARATELY-INSTALLED PM USERS

• Recommended by family members.

• Too many passwords to remember.

• Higher security benefits.

“My son recommended it to me...I had a brief discussion with him on how to create my passwords and he helped me.”

“Since I am using it only on the PC, all the stuff is stored in the PC and nowhere else, and maybe they are encrypted.”
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Older Adults

• Enjoyed the password generation feature in their PMs.
• Disliked cloud storage.

Younger Adults (Pearman et al.’s Study)

• Some users disliked password generation and would reuse old passwords.
• Preferred having cloud storage capabilities.
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DISCUSSION OF BARRIERS TO PM ADOPTION

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• Effect of technology on memory and control.
DISCUSSION OF BARRIERS TO PM ADOPTION

• Time management and disruptions.
• Effect of technology on memory and control.
• Lack of self-efficacy and lack of trust.
ENCOURAGING PM ADOPTION

• Advocacy from family members.
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• The role of education and outreach.
DESIGN IMPLICATIONS

• Advertising PMs with clear context of password storage.
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• Reassure users of password security on PM interfaces.
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• Provide nudges to use PMs during account creation on websites.
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• Advertising PMs with clear context of password storage.
• Reassure users of password security on PM interfaces.
• Provide nudges to use PMs during account creation on websites.
• Streamlined set-up process.
CONCLUSION AND TAKEAWAYS

Barriers to PM adoption among older adults:
• Not worth the time and effort to set-up.
• Feel the need to have control and ownership.
• Lack of self-efficacy.
• Lack of trust.

PM adoption can be encouraged through the advocacy from family members and trusted friends, and through educating its importance and benefits.

Methodological contributions – used existing validated codebook for a different user group to draw direct comparison of themes.
THANK YOU!

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