

“Would You Give the Same Priority to the Bank and a Game? I Do Not!”

Exploring Credential Management Strategies and Obstacles during Password Manager Setup

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Password Managers Are Great

Password managers enable us to create long and complex passwords, because we do not need to remember them anymore.

But: Requires that we add and update credentials ASAP!



Password Managers Are Great, But Tedious

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But: Requires that we add and update credentials ASAP!

(but that's tedious work)

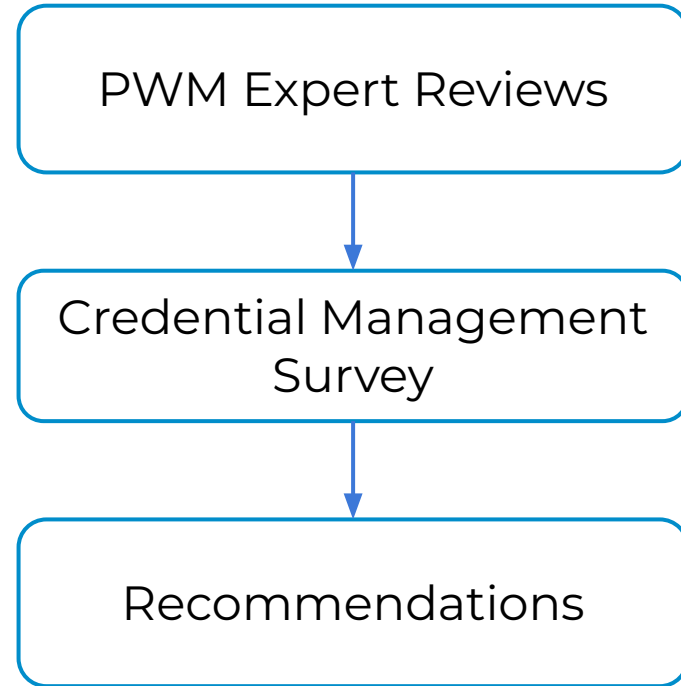


A Mixed-Methods Study on PWM Setup Strategies

RQ1: **What helpful features** do new users encounter?

RQ2: **What** are **common** user setup **strategies**, and **why** are they used?

RQ3: **How** can we **help users** and **improve** the setup process?



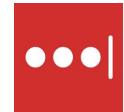


RQ1: Expert Reviews



We Reviewed 14 Password Managers

- Tested 12 PWMs & 2 Browsers
 - Offline & Cloud, free versions where possible
- Fixed set of tasks & on-screen prompts
 - Imports, auto-save, insecure passwords
- Recorded setup process



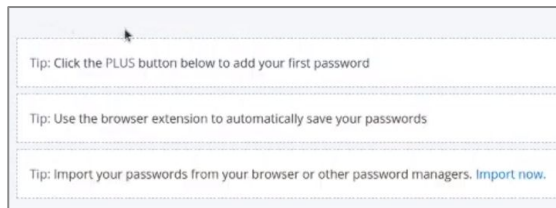


Motivation & Education Features Uncommon

- Tutorials



- Next Steps



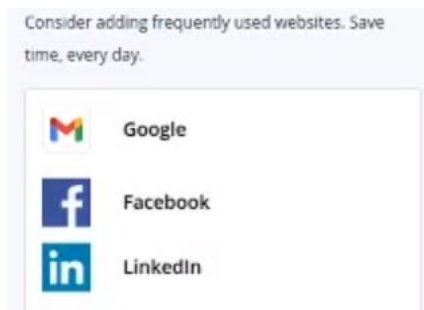
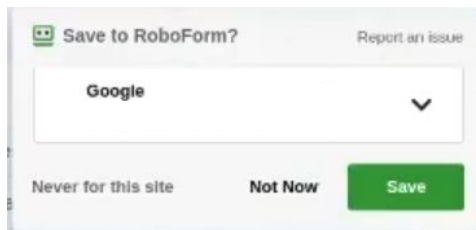
- Achievements





Imports & Auto-Save in Almost All Tested PWMs

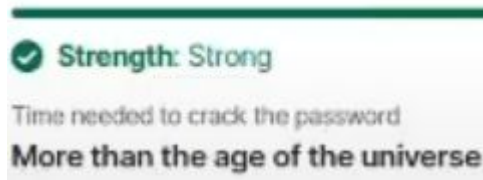
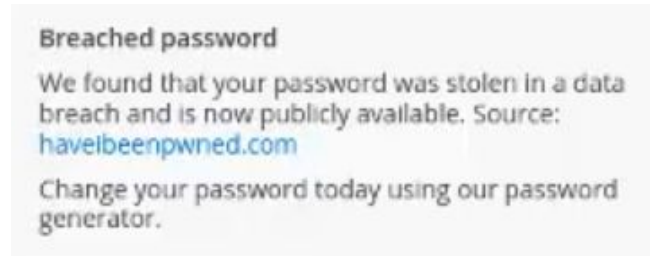
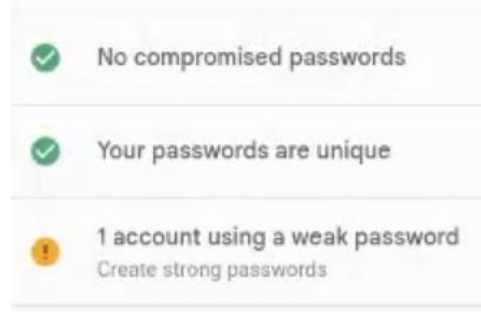
- Imports
- Auto-Save
- Account Suggestions





Security Features Widespread, but often Paywalled

- Security centers
- Breach reports
- Password meters
- Enforced secure master password





RQ2: End User Survey



End User Survey About Experiences & Reasons

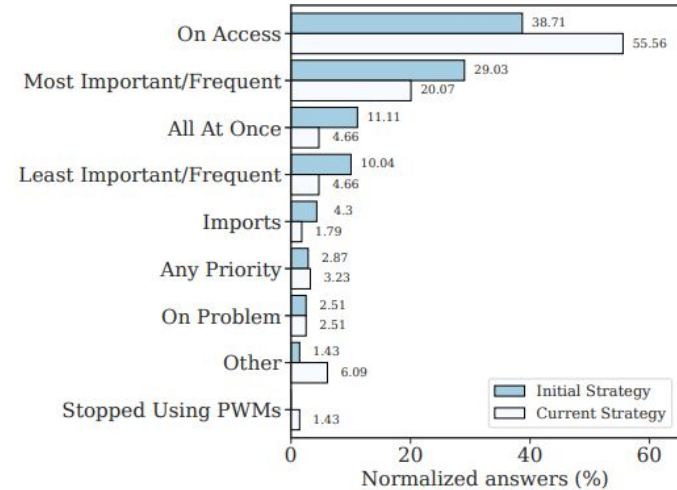
- Questioned 279 end users via Prolific
 - Pre-survey to identify PWM users

- Topics:
 - Initial & current adoption strategies
 - Other used PWM functions
 - Experiences during setup
 - Improvements



Passwords Are Mostly Added on Access

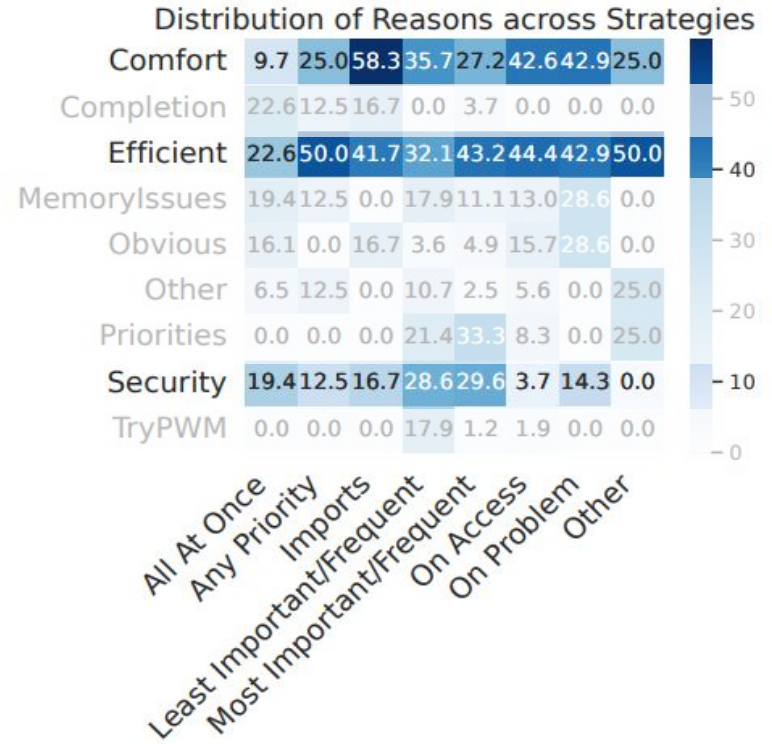
- Most common: Add when service is accessed
- Secondly: Add most frequent/important
- Others mostly irrelevant
- Shift to on access after initial setup





Comfort and Efficiency Drive Strategy Choices

- Comfort:
 - Seamless
 - Easy process
- Efficient:
 - Quickly done
 - Sufficiently completed
- Security less relevant!





Users Prefer Convenience Over Security

- Mainly seen as convenience tool
- Lack of trust
 - 10% initially only added least important accounts
 - 28% don't store all accounts due to distrust
- Users prioritize account types
 - Most common: Social media, email, financial



RQ3: Recommendations



We Should Ease The Addition Process Further

- Ease the process:
 - More automation
 - Guided additions
- Identify accounts:
 - Account scans
 - Account suggestions
- Motivate & inform users:
 - Privacy labels
 - Gamification & nudges

