Interactive Stories for Security Education: A Case Study on Password Managers

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What is an interactive story?

An interactive story is a type of genre that positions the reader, as the director of the story to influence the ending.

Why password managers?

Using a password managers is a highly recommended security tool but adoption rates remain low. This allows a great opportunity to investigate if interactive stories are effective in changing attitudes or increasing intentions to adopt.

Our Goal

How can we create a comprehensible interactive story to successfully simulate security consequences of password managers?

Generation of Story

Participatory Design (n=9)
To inform the narrative

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Baseline Knowledge Survey (n=200)
To gather common misconceptions

Final Interactive Story

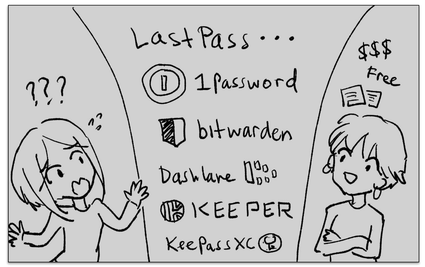
Two characters

Security "Agent"

Goal in accessing accounts

Focus on inconvenience

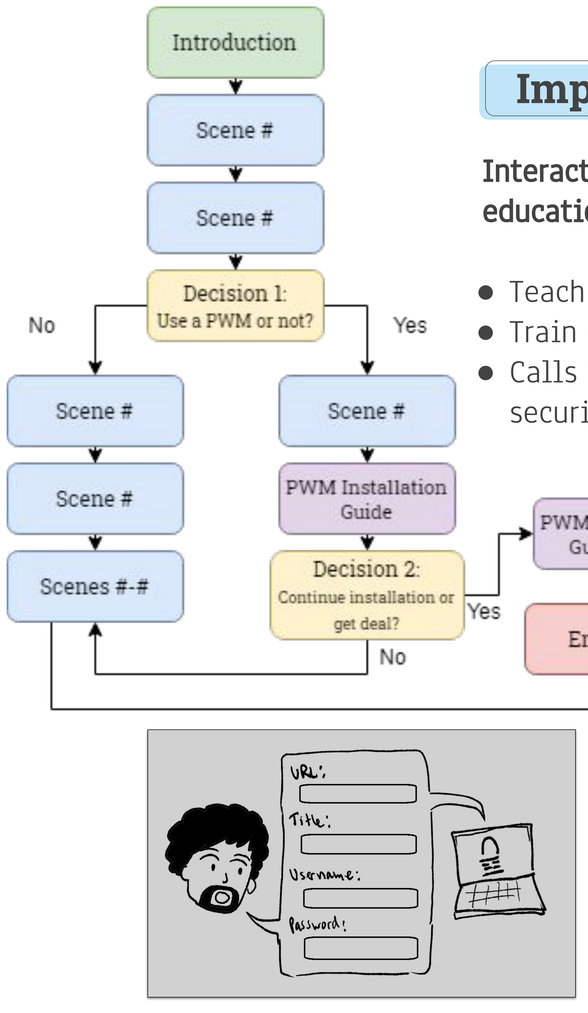














Evaluating the Story

Cognitive Interviews (n=8) were conducted to evaluate the story

Understood function and purpose of password managers

Learned about the autofill feature

Understood the risks with reusing passwords

Trustworthy agents aided in their understanding of password managers

Implications for Practice

Interactive stories show a promising approach as an educational intervention for security education.

- Teach children and young adults
- Train employees to adopt password managers
- Calls for heuristics and templates for creating security and privacy focused interactive stories