User Perceptions of Five-Word Passwords

Qualitative Codebook

Xiaoyuan Wu, Collins W. Munyendo, Eddie Cosic, Genevieve A. Flynn, Olivia Legault, Adam J. Aviv The George Washington University

• secure (131)

hard-guess (16), hard-crack (13), length (10), random (6), unique (6), no-personal (5), not-confident (4), not-enough (4), dots (3), uncommon (2), word-choice (2), no-sense (1), infinit-combo (1), special (1), not-remember (1), only-words (1), prefer-password-manager (1)

• words-and-chars (125)

random (44), personal (30), pet-name (6), easy-to-remember (5), sentence (1), movie (1), favorite (1), anime (1), object (1)

• easy-to-remember (125)

words (9), sentence (7), short (7), humor (4), rythmic (4), theme (4), rhythm (3), story (3), strong (2), word-ordering (2), first-letter (2), frequently-use (2), relatable (1), spelling (1), coherent (1), common-words (1), first-combo (1), secure (1), relate-to-words (1), typo (1), one-syllable (1)

• no-change (109)

• combination (93)

nums-letters-symbols (25), nums-words-symbols (11), words (9), nums-words (8), personal (7), nums-letters (6), letters-symbols (3), words-symbols (2), letters (2), object-inspiration (1), nums-symbols (1)

• numbers (60)

personal (11)

• add (57)

symbols (28), numbers (18), nums (17), capitals (14), caps (8), special-chars (6), characters (2), acronym (1), punctuation (1), words (1), similar-words (1), favorite-movie-char (1)

• repeat (53)

in-head (22), oral (13), visual (4)

• words (40)

personal (13), work (11), favorite-words (4), company-name (4), random (3), usual-pass (1), company-name-+-CEO-name (1), review (1), last-two (1)

• same (37)

variation (18), change-regularly (1), change-monthly (1)

• hard-to-remember (36)

• not-secure (35)

easy-crack (10), only-words (9), add-symbols (5), easy-guess (5), add-nums (5), add-caps (2), breach (1), hack (1), better-than-normal (1), short (1), personal (1), hard-crack (1)

- memory (32)
- usual-pass (31)
- write-down (24) photo (2), store (1)
- no-method (24)
- n/a (22)
- bad-memory (21)
- physical-storage (21)
- password-manager (39)

variation (18)

usual-pass (14), change-quarterly (1), object-inspiration (1), change-monthly (1)

• change (18)

length (7), words (5), entire-pass (2), first-word (1), into-sentence (1), style (1), word-odd (1), structure (1)

- unique (17)
- browser-storage (16)
- surroundings (15)
- change-words (14)

memorable (3), sentence (2), complex (2), personal (2), nopersonal (1), monosyllable (1)

- sentence (13)
- passwordbank (12)

variation (2)

• change-length (12) reduce (7), increase (1)

- must-use-everyday (9)
- acronyms (9)
- file-storage (9)
- make-easy-to-remember (9)
- good-memory (9)
- **object-inspiration (9)** work (6), personal (1), favorite (1)
- secure-for-some (9)
- long (8)
- remember-few (8)
- hard-to-guess (8)
- favorite (7)

sayings (1)

• remove (7)

periods (5), words (1), all-s (1)

- within-dictionary (6) short-words (1)
- imagination (6)
- meanings (6)
- nums (6)

work (3), personal (2), personal-+-work (1)

- use-only-one (6)
- use-pass-manager (6)
- things-on-mind (5)
- passwordbank-2 (5) categorized (1)
- story (5)
- change-dots (4)
- needs-personal-meaning (4)
- personal (4)
- device (4)

mnemonic (3)

- passwordbank-3 (4)
- get-used-to (4)
- random (4)
- common (4)
- formula (4)
- make-familiar (3)
- passwordbank-5 (3)
- order-matters (3)
- phrase (3)
- use-method (3)
- first-combo (3)
- different-format (2)
- context (2) meaningful (2)
- do-not-want-use (2)
- better-than-other (2) short (1)
- accident (2)
- next-word (2)
- *secure* (1)
 theme (2)
- work-related (2)
- not-five (2)
- randomly (2) story (1)
- feelings (2)
- unsure (2)
- seems-right (1)
- make-personal (1)
- none (1)
- larger-dictionary (1)
- good-method (1)
- starting-words (1)
- hard-remember (1)
- unused (1)
- only-if-easy (1)
- passwordbank-4 (1) categorized (1)
- passwordbank-6 (1)
- forgot-last-word (1)
- simple-words (1)
- funny (1)
- group-pairs (1)
- familiar (1)
- positive (1) use-in-future (1)
- nice (1)
- secure-enough (1)
- like-the-flow (1)
- simple (1)
- increase-dictionary-size (1)
- easy-remember (1)
- not-complicated (1)
- important (1)
- reorder (1)
- personal-connection (1)
- atypical-format (1)

- no-more-secure (1) current-pword (1)
- like-the-combination (1)
- unique-combo (1)
- needs-theme (1)