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Analysis of Coping Mechanisms in Password Selection

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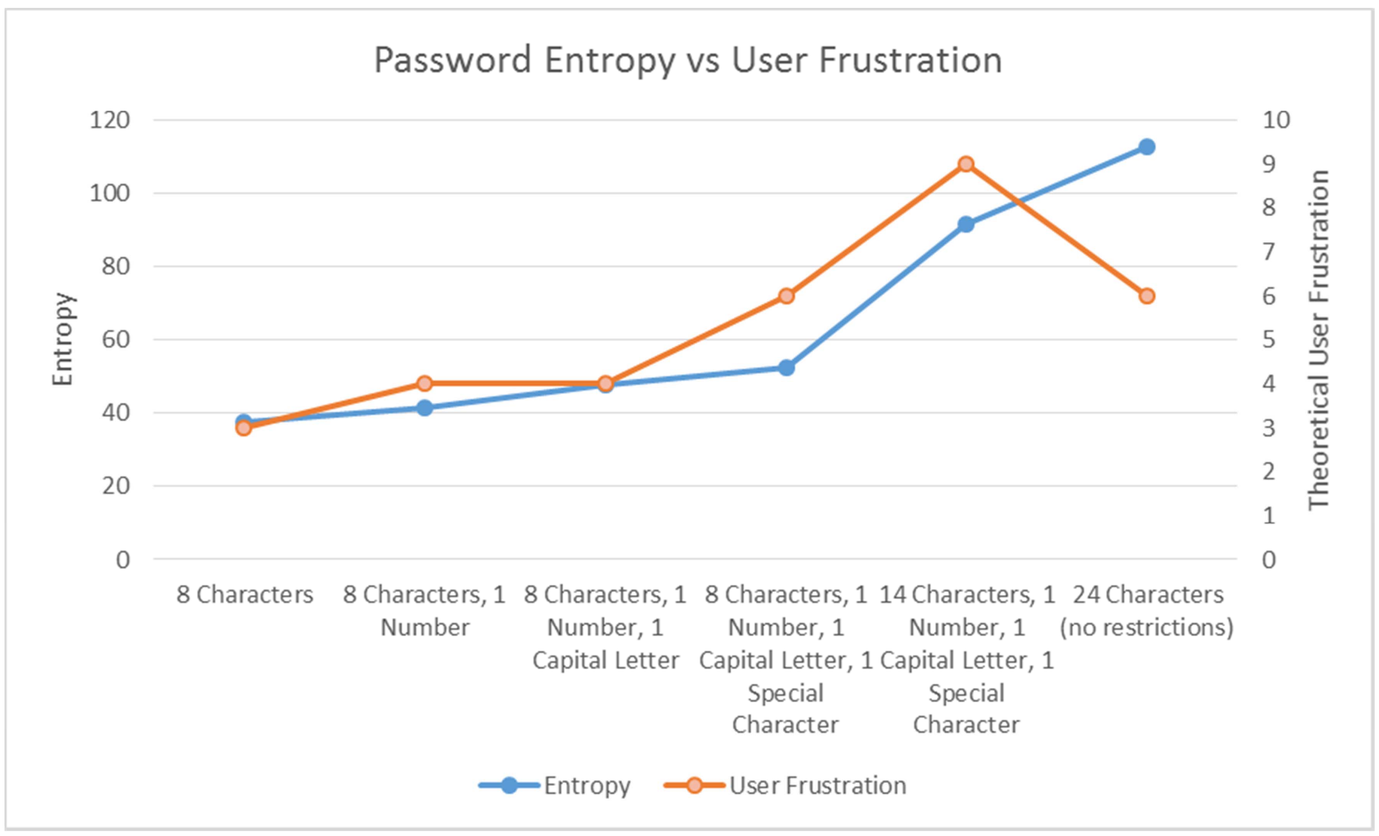
Problem: Password policies are often cumbersome and unwieldy. The more difficult a policy the more users attempt to circumvent these policies through engaging in a variety of coping mechanisms.

Goal: Find a type of policy that will maintain or increase security whilst not being overly burdensome on the user so that the user will engage in coping mechanisms.



Coping Mechanisms

- Writing passwords down
- Incrementing upon password change
- Doubling passwords
- Reusing passwords
- Resetting Forgotten passwords
- Historical influence

Theory: Policies with stringent requirements for letters, numbers, and symbols that require changing on a regular basis lead to users writing down passwords, modifying old passwords and or being locked out of the system, all of which decrease productivity. By utilizing psychology principles of memorability we will attempt to cater toward the human element. Cognitive psychological principles relevant to password policy include queuing and chunking.

Future Work:

1. Implement a data collection method that will observe user behavior across different password policies and regularly required password changes.
2. Create a standardized method of analysis for the data collected.
3. Make recommendation for best practices in industry use

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