

Malware Inc - Web Browsers

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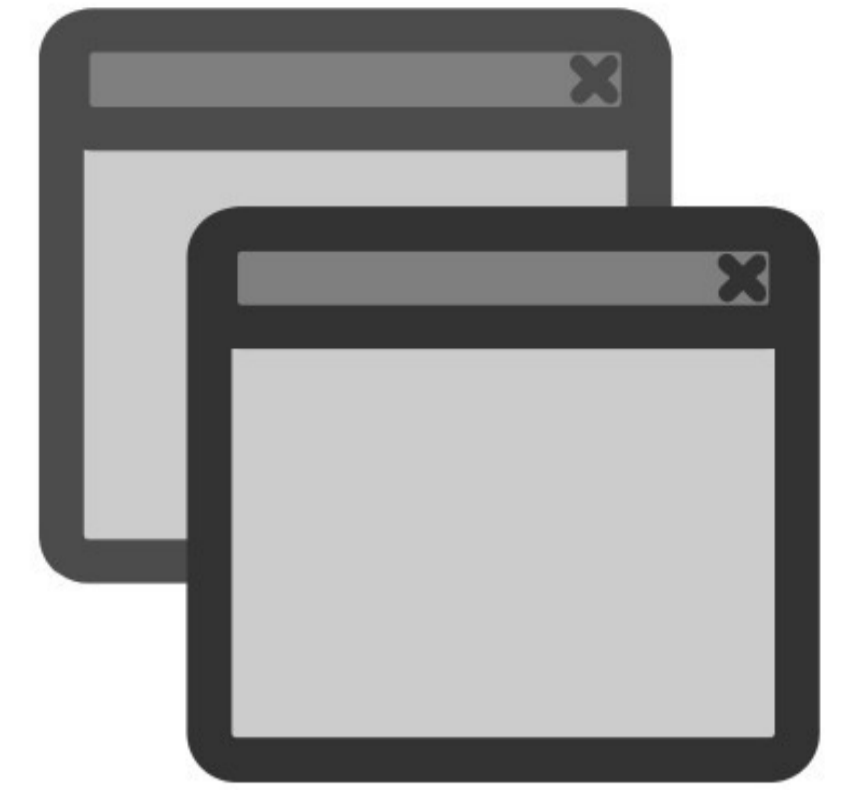
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Browser extensions

- Small Programs
- Run in the browser
- Improve functionality
- Change the User Interface



Functionality User Interface

With this new technology, there are new threats.

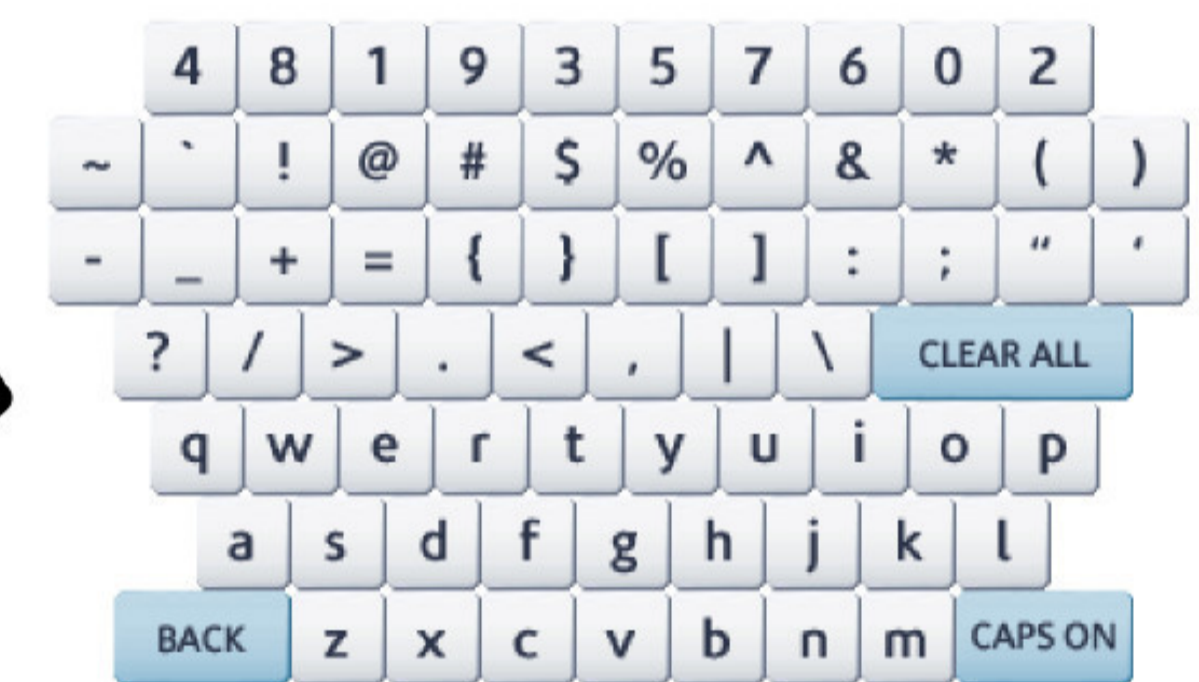
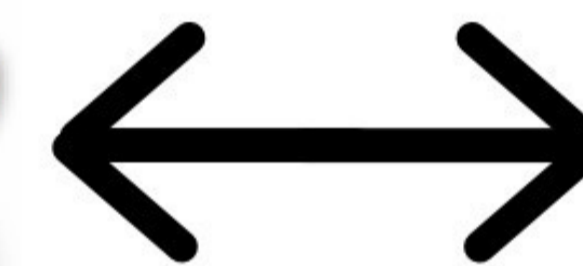
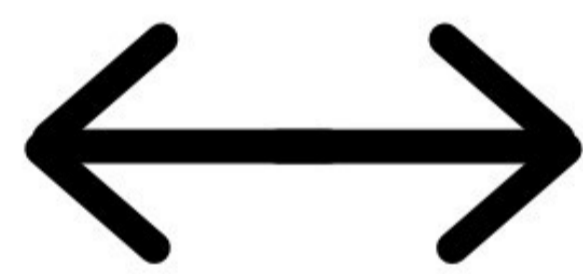
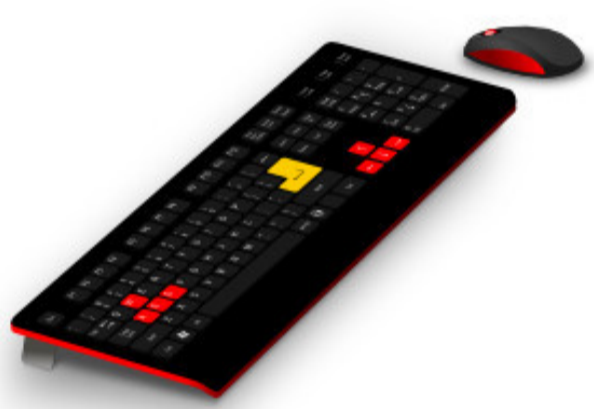
Malware(Malicious software) are on the rise in the extension world for browsers.

Our goal was to assess the security of browser extensions.

Mozilla Firefox



Google Chrome



We created an extension that can read and write to files in the user system, as well as download and execute external programs. Basically, the extension does something good for the user, but installs a key logger in the background, which then logs the keys entered by the user.



We created an extension that records the passwords of users when they try to login using e-banking mode. When any data is entered using the on-screen keyboard, a screenshot of the keyboard was captured with emphasis on the button that was pressed.

These malware are undetectable
by widely used antiviruses

Future Plans:

- Design security tools to detect malwares in browser extensions
- Research possibilities for browsers that are "safer" by design.