

Assignment 2Goals and Questions

SOEN 6611: Software MeasurementWinter 2015

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How does controlling memory usage affect the overall performance on Google Chrome?

Direct Measures

- Number of defects related to high memory usage thus measuring amount of memory used up.
- 2 No of issues related to web page rendering in chrome.

Confounds Controlling Measures

- 1. Ensure proper memory management.
- 2. Providing a well-developed API to ensure better page rendering.

Hypothesis to be tested:

Controlling the memory consumption of Google Chrome will lead to crash free run period and hence a better performance.

Measure of quality outcome:

Smooth running of Google Chrome (Crash free environment)

Is browsing safe and secure in Google Chrome?

Direct Measures

- 1 Number of user interface security issues (viruses/ malicious code) reported
- 2 Number of downloaded malicious software.
- 3 Number of bugs reported related to privacy.

Confounds Controlling Measures

- 1. Developer level of experience.
- 2. Issues severity.

The more experienced the developer is, the higher the rate of severity issues being fixed thus it will help control the confound.

Hypothesis to be tested:

Blocking malicious software (code/scripts/extensions) would provide a more secure and safe browsing in Google Chrome.

Measure of quality outcome:

Provide a safe and secure browsing

How does increased testing improve the usability of Chrome?

Direct Measures

- 1 Number of issues reported related to accessibility
- 2 The time taken for a task to be completed
- 3 The number of tasks succeeded versus the number of failed tasks

Confounds Controlling Measures

- 1. The higher the level of familiarity the user has with Google Chrome, the less time it takes to complete the tasks
- 2. More use of prototyping (E.g. Beta versions)

Hypothesis to be tested:

The increased number of Google Chrome usability tests on adequate amount of users will improve overall usability

Measure of quality outcome:

Enhancing the usability by providing faster and convenient browsing