



Usability Analytics: The Value of Measuring Ease-of-Use

What is usability?

“Usability” is a measurable characteristic to describe how “user-friendly” a system is: how easy it is to learn for novice users and how easy it is to use for frequent users. More user-friendly (efficient, flexible, powerful) systems or websites are therefore **easy to learn and easy to use**.

As the web becomes increasingly integrated with business, the usability of applications and websites is becoming a critical step in effectively serving stakeholders.

The International Organization for Standardization (ISO) defines usability as “the extent to which goals are achieved with effectiveness, efficiency and satisfaction.”

ISO usability elements include:

Effectiveness The accuracy and completeness with which specified users can achieve specified goals in particular environments.

Efficiency The resources expended in relation to the accuracy and completeness of the goals achieved.

Satisfaction The comfort and acceptability of the work system to its users and other people affected by its use.

Why are usability analytics important?

The evolution of the Web has reshaped how business and users interact. As such, interface and Web usability specifically has become a notable topic. Given the rising importance of online customer support, it is imperative that organizations define methods and processes to measure and improve the usability of their Web interfaces. Emerging trends include:

- As the division between online and offline business grows less distinct usability analytics will provide a new method to **uncover customer needs**.
- As companies integrate the use of the Web into their overall business, **Web upgrades and redesigns are justified** based on how well they support the end-user.
- Effective **online marketing** efforts now require companies to pay attention to and respond to their site visitors.
- Companies are engaging usability solutions that strengthen their competitive advantage by **improving online customer support**.



Usability Scorecard: How are metrics generated?

Although there are many Web analytic tools available, few generate the metrics necessary for a usability analysis. Some usability statistics can be mined through log files to track the number of page hits and traffic volumes. However, they do not automatically determine why a customer abandons the site or if the user experience was positive. Therefore, usability metrics must include specific tests and evaluations that generate an accurate usability equation and a fuller picture. The following is an example of usability data collection approaches:

	Data/Proxy	Analysis Tool
Effectiveness	Path analysis, errors, load times, log files, etc...	Site analytics (i.e. navigation/ technical audit)
Efficiency	Time/effort it takes to complete key tasks	Usability testing (i.e. heuristic evaluation, user testing)
Satisfaction	Satisfaction/competency with key tasks	User surveys (i.e. management survey, user questionnaire)

Gathering usability data requires specific methods and tools depending on what usability element is being assessed – efficiency, effectiveness, satisfaction. By pulling internally stored log files and running the necessary tests, a wider range of data can be collected from a variety of sources.

Analysis tools are then used to pull meaningful intelligence from the data. Again, this may be a web-specific or a business-wide exercise. The tools produce metrics that the organization can use to aid decision-making and “red flag” potential problem areas.

Finally these metrics need to be summarized in some form of report or scorecard that is presentable to managers and stakeholders who may or may not be experienced in web analytics.

Usability Attributes: What should be analyzed?

Taxonomy and architecture: Is the conceptual categorization of information clear?

Labeling and mapping: Is the navigation easy to understand? Does the interface provide context?

Brand consistency and aesthetics: Is the look and feel pleasing? Does it meet brand objectives?

Communication clarity: Is information written and presented in a way that speaks to the target audience?

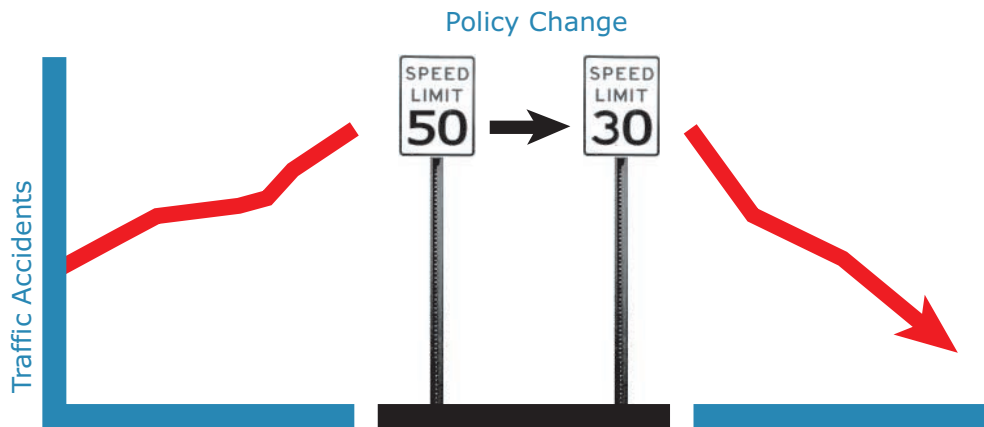
Optimization, Coding practices, System performance and load times: Does the technical implementation meet industry standards?



Why do metrics matter?

Communication managers and IT divisions need to know where they stand. Analytics provide decision makers and budget gatekeepers with the ability to further clarify how their technology impacts users. It can be difficult, if not impossible, to determine the return on investment on IT projects without clear performance metrics.

Perhaps a good analogy is the direction that legislators and policy makers are taking towards traffic and highway safety by utilizing the total number of injury accidents/registered vehicles as their metric. An increasing rate of accidents raises the alarms, influencing policy makers to direct resources towards decreasing it (money for programs or public education). It's not the dollars that legislators spend analyzing these statistics that directly benefit the driving public or prevent an accident. There is, however, a strong indirect benefit because the statistics give them the knowledge to make the appropriate spending or policy change.



Likewise, usability analytics help managers to reveal problems and give insight to their severity. Key business drivers for analytics include:

- Need to harvest returns from Internet investments
- Need to understand what's wrong with current design and architecture
- Need to identify weaknesses as they relate to organization business objectives
- Need to identify those weaknesses with the greatest impact on business objectives
- Need to validate and measure the impact of design changes via metrics that identify, prioritize and rank problems relative to industry standards

If you'd like to learn more about our Usability tools, talk to us about REV Usability.

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