

Usability Testing Tools

ID 405 Human-Computer Interaction

Is Usability Testing Still Useful?

- Usability testing has its background in HCI, whose practitioners remain its most ardent supporters
- This approach – a researcher, a participant, a list of tasks, and sometimes even a stopwatch – was developed for mainframe and then shrink-wrapped software as an evolution from even earlier task-based analysis techniques
- It involves rigorous procedures that result in statistically oriented results
- When used to analyze Web or mobile based user behavior, for a range of Web and mobile-based products, and for a range of audience however, this approach has its limitations

Is Usability Testing Still Useful?

10 to 15 years ago the usability laboratory was the must-have for vetting and testing your design ideas. But more nimble development processes and new tools have superseded the usability lab. Some of these are:

- remote screen sharing and screen recording tools and services
- voice of the customer (VoC) feedback systems,
- A/B testing and multi-variant testing
- remote co-design tools like online card sorting
- survey tools for straight-up surveys and concept evaluations
- public betas, previews, and opt-ins
- “Analytics!”

Recap: Usability Evaluation

- Expert Reviews
- Heuristic evaluation
- User Testing
 - Thinking Aloud Protocol
 - Card sort
 - Feedback from real life usage
 - Observational field studies
 - Logging actual use
 - User Feedback
 - Questionnaires and Interviews
 - Focus groups

1. User Task Analysis

- The most important and obvious thing to test for is whether users are able to accomplish their tasks and goals. Not only that, you have to ensure they're able to do so in the best and most efficient way possible.
- The first thing that must be done is determine what the core user tasks are. For example, in a shopping list app, what are some critical user tasks?
- Perform a task analysis for each task. Evaluate task performance under the following considerations:

1. User Task Analysis

Learnability: How easy is it for new users to learn to perform the task? For more complicated tasks, are there sufficient help features such as in-line help and hints, tool tips, etc.?

Intuitiveness: How obvious and easy is the task to accomplish?

Efficiency: Are users performing tasks optimally? Are there ways to streamline and reduce the time it takes to complete the task?

Preciseness: How prone to errors is the task? What are the reasons for any errors? How can we improve the interface to lower errors and unneeded repetition?

Fault Tolerance: If a user makes a mistake while performing the task, how fast can he recover?

Memorability: How easy is the task to repeat?

Affordance: Are interactive elements (such as buttons, links and input text boxes) related to the accomplishment of a task obviously interactive and within convenient reach? Is it evident what the results of a user action will be when the user decides to interact with it by clicking, mouse hovering, etc.?

Mobile phone number input field

Get exclusive discounts and offers sent via SMS to your mobile phone. Receive up to 2 msg/month. Msg & Data rates may apply.

By selecting this you agree to the Terms of Use.

Enter information as it appears on your credit card or billing statement. At this time we cannot accept European billing addresses.

Payment Information

Prev. Next

1	2 ABC	3 DEF	← x
4 GHI	5 JKL	6 MNO	Done
7 PQRS	8 TUV	9 WXYZ	?#+
*	0 +	#	-



Extreme lack of page overview – Fields are out of context

- Touch keyboard take up close to 50% of the available screen space in portrait mode and 70-80% of the screen in landscape mode
- This has severe implications on the user experience, especially when user is filling out a form
- For example, a label shouldn't simply read "Phone", even if placed within a "Billing Info" section header, but should instead be completely context-independent and read "Billing Phone"
- This of course goes for any type of field, so it should similarly be "Gift Certificate Pin" instead of just "Enter Pin", and so on

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Intuition HQ (<http://www.intuitionhq.com/>)

IntuitionHQ allows you to see how users interact with your website and records the duration in which a task is completed

Where do you click to start a search?

Next >

page.

Ne

[Videos](#) [Maps](#) [News](#) [Shopping](#) [Gmail](#) [more](#) ▼

[iGoogle](#) | [Search settings](#) | [Sign in](#)

Google™

Usabilla

[Advanced Search](#)
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Go **1** Search

I'm Feeling Lucky

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Join Today | **1**

Join Today

5 or more characters

2 [Join Now](#)

Already on LinkedIn? Sign

members by country

and Privacy Policy

Usabilla (<http://usabilla.com/>)

Usabilla allows you to perform micro-usability tests, including the measurement of task performance. You give participants a task, such as “Click on the link that takes you to the home page of the site,” and it records data related to task accomplishment success and duration, thereby giving you information on learnability and efficiency.

0%
Complete

Your 12 year old child wants to know the name of the most recently released 'Harry Potter' novel. Using the website, how can you find this information?

Abandon Task

Task Complete

amazon.com

Hello. [Sign in](#) to get personalized recommendations. New customer? [Start here](#)

Your Amazon.com



Today's Deals

Gifts & Wish Lists

Gift Cards

The All-New Kindle Family: from \$79

Your Digital Items

Your Account

Help

Shop All Departments

Search All Departments



Cart

Wish List

Unlimited Instant Videos

MP3s & Cloud Player

17 million songs, play anywhere

Amazon Cloud Drive

5 GB of free storage

Kindle

Appstore for Android

Get Symphony of Eternity free

Digital Games & Software

Audible Audiobooks

Books

Movies, Music & Games

Electronics & Computers

Home, Garden & Tools

Grocery, Health & Beauty

Toys, Kids & Baby

Clothing, Shoes & Jewelry

Sports & Outdoors

Automotive & Industrial

amazon.com

Dear Customer,

There are two types of companies: those that work hard to charge customers more, and those that work hard to charge customers less. Both approaches can work. We are firmly in the second camp.

We are excited to announce four new products: the all-new [Kindle](#) for only \$79, two new touch Kindles [Kindle Touch](#) and [Kindle Touch 2G](#) for \$99 and \$149, and a new class of Kindle [Kindle Fire](#) a beautiful full color Kindle for movies, TV shows, music, books, magazines, apps, games, web browsing and more, for only \$199.

Microsoft Touch Mouse

Windows 7 has met its mouse

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Loop11 (<http://www.loop11.com/>)

Loop11 tests remotely by allowing creation of tasks and questions to explore the user experience, determine satisfaction and validate task completion on websites. It provides real-time clickstream report in graphical representation of participants' navigation through the website.

2. Readability

Content is at the heart of any type of website. For example, even in web apps — which aren't typically as content-centric as, say, a blog or web magazine — not being able to read and understand the user interface is a hindrance to one's ability to perform tasks efficiently and accurately.

Readability hinges on these considerations:

Ease of Comprehension: Is the content easy to understand and internalize? Are the words being used familiar to the average Internet user or are they too complex and uncommon? Are sentences and paragraphs as concise as possible?

Legibility: Are fonts big enough? Is there enough contrast between the text and its background?

Reading Enjoyment: Would users appreciate and enjoy the content? Is the information accurate, of high quality and well-written? Do font characteristics such as size, spacing and color make reading longer passages easy or do they strain the eyes?

Test the Readability of a Website

Website address

URI

The following table contains the readability results for <http://sixrevisions.com/>

Reading Level Results

Summary	Value
Total sentences	253
Total words	963
Average words per Sentence	3.81
Words with 1 Syllable	540
Words with 2 Svllables	197

Juicy Studio: Readability Test (<http://juicystudio.com/services/readability.php>)

This free tool allows you to input your website's URL and then subsequently provides you readability scores based on some popular readability evaluation algorithms.

WordsCount: Readability

Readability assessment attempts to assign a grade to text using some combination of the number of sentences, words, and syllables. Some formulae are Flesch Reading Ease, Fog Scale, and Lexile hundreds, but the top few are considered reliable. This in turn helps you target an audience.

Index	Metric	Data
1	Words	68
2	Sentences	5
3	Syllables	118
4	Big Words [> 3 syllables]	13
5	Smog Grade	12.34
6	Gunning-Fog Index	13.09
7	Automated Readability Index	10.37
8	Coleman Liau Index	13.26
9	Flesch-Kincaid Grade	10.19
10	Flesch Reading Ease	46.23
11	Spache Index	6.77
12	Dale-Chall Index	12.67
13	Dale-Chall Grade	16+
14	b20d57ec-7d56-4188-84ce-d41bbca908c2	ID
15	Fri Sep 30 03:18:37 GMT 2011	Date

Click

Submit

100000 characters remaining.

Click button to submit

WordsCount (http://www.wordscount.info/wc/jsp/clear/analyze_readability.jsp)

This tool is useful when you're evaluating readability of website copy before it's made public on your site. With WordsCount, you can copy and paste your text, and the app will output readability scores.



<http://sixrevisions.com>

Check

Testing done on 322 elements

Luminosity Contrast Ratio: 42 failures

Brightness difference: 42 failures

Color difference: 61 failures

[Full report](#) [Only errors](#) Click on the rows to test other colours

Node	Foreground	Background	Sample	Contrast Ratio	Brightness difference	Color difference
BODY	#333333	#999999	Sample Text	4.38:1	101	363
. DIV id="wrapper"	#333333	#999999	Sample Text	4.38:1	101	363
. . DIV id="inner"	#333333	#FFFFFF	Sample Text AAA	12.63:1	204	612
. . . DIV id="mainhead"	#333333	#FFFFFF	Sample Text AAA	12.63:1	204	612

Check My Colours (<http://www.checkmycolours.com/>)

To evaluate legibility, you can test the contrast of your foreground (text) against its background. *Check My Colours* tests page elements against optimal W3C color contrast algorithms. The higher the contrast, the more likely your text is legible and pleasant to read.

3. Site Navigability

For most sites, it's imperative that the user be able to move through multiple webpages as easily as possible. Navigability consists of numerous user interface components, such as navigation menus, search boxes, links within the copy of a webpage, sidebar widgets that display recent or top content and so on.

Here are the major considerations for when you're testing your site's navigability:

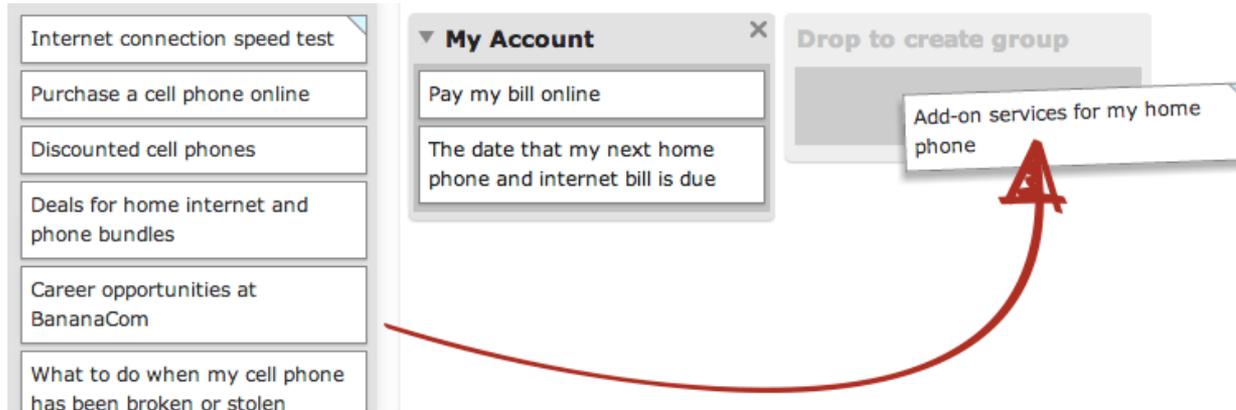
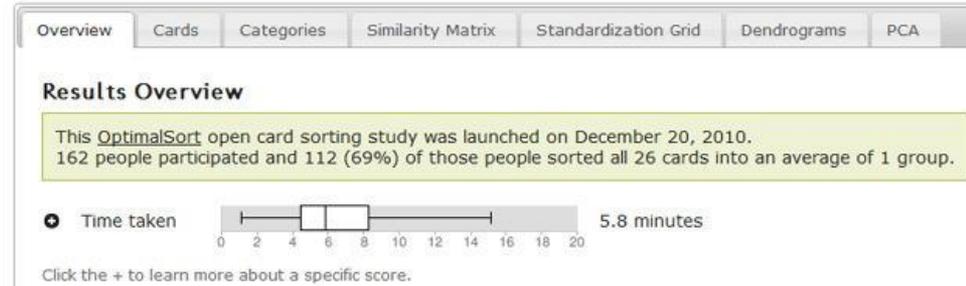
Information Architecture (IA): How well are webpages categorized and organized? How well are navigational features constructed?

Findability: Are there sufficient site features such as search boxes, archive pages, links and navigation features that aid in finding relevant webpages?

Efficiency of Navigation: How fast and in how many actions (number of clicks, how much text, etc.) does it take to get to page of interest?

BananaCom IA Redesign Results FINISHED

112 Responses + 50 Abandoned



Internet connection speed test

Purchase a cell phone online

Discounted cell phones

Deals for home internet and phone bundles

Career opportunities at BananaCom

What to do when my cell phone has been broken or stolen

My Account ×

Pay my bill online

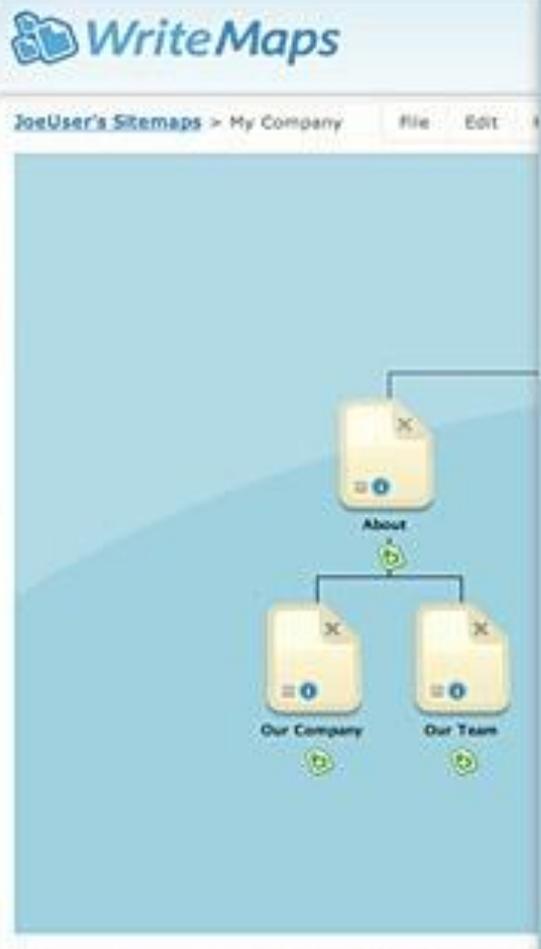
The date that my next home phone and internet bill is due

Drop to create group

Add-on services for my home phone

OptimalSort (<http://www.optimalworkshop.com/optimalsort.htm/>)

OptimalSort helps you find out, remotely, how people think your content should be organised. It is useful for designing information architecture, workflows, menu structure or website navigation paths.



WriteMaps (<http://writemaps.com/>)

Creating a site map — a list of webpages that a website has or will have — can greatly aid navigability analysis. WriteMaps is a tool that you can use to generate, manage and share your site maps.

You came across this website while searching for Coffee Equipment: Your desire is to purchase a Hario V60 Coffee Brewer: Where would you click to accomplish this?



NaviFlow (<http://writemaps.com/>)

Navflow provides path and conversion analysis for your mockups and wireframes. It helps you find out how users navigate around your websites and applications and identify which page is causing your users difficulty when completing multi-step processes.

4. Accessibility

A website should be accessible to everyone, including those of us with disabilities that affect how we experience the web.

People often mistake web accessibility as being only for those with barriers like blindness or mobility issues. However, we should broaden our view to include anything that might hinder a user accessing your site from a number of browsing situations.

This is especially critical with the rapid adoption of mobile devices, tablets, netbooks and web-enabled TVs and gaming consoles. Internet users also have a much wider array of web browsers than ever before: IE, Chrome, Firefox, Safari, Opera and so forth.

All of these options render our work in different ways and present interaction challenges. For example, selecting a link on a touchscreen tablet is completely different from clicking it on a desktop computer.

4. Accessibility

Here are considerations to take into account when performing web accessibility analysis:

Cross-Browser/Cross-Platform Compatibility: Does the site work in as many browsing situations as possible? Is the site responsive, flexibly changing the layout depending on how the user views it?

Semantic HTML Markup: Especially for those who use assistive technologies like a screen reader, the quality and accuracy of the webpage's structure is important. Are HTML tags being used correctly?

Color Choice: Are the colors used high contrast? Do the colors create a hindrance to people with colorblindness or poor vision?

Use of HTML Accessibility Features: There are HTML features and techniques that aid users with visual impairments. Are these features and techniques being used?

Quality Assurance

You are here: [Home](#) → **Quality Assurance**

→ [Site Navigation](#)

Contents

→ [Local Tools](#)

→ [Hosted Services](#)

→ [Downloadable Tools](#)

→ [Greasemonkey Users Scripts](#)

→ [Firefox Extensions](#)

→ [Bookmarklets](#)

→ [External Tools](#)

Local Tools

Hosted Services

[Readability Test](#)

The readability test analyses a Web page to determine how readable it is.

[CSS Analyser](#)

The CSS analyser tests for basic accessibility errors such as colour contrast and units of measurement.

[Luminosity Colour Contrast Ratio Analyser](#)

The luminosity colour contrast ratio analyser tests whether the contrast between the background and the foreground is sufficient.

Search Criteria

Site Navigation

[Main Content](#)

[Switch to High Contrast](#)

[Home](#)

[Quality Assurance](#) ←

[Articles Archive](#)

[Privacy Statement](#)

[Contact](#)





Juicy Studio: Local Tools (<http://juicystudio.com/services.php#localtools>)

This is a suite of tools for evaluating website accessibility. The CSS checker identifies accessibility issues related to the visual layer of a website, an image analyzer for checking your image elements and more.

The world.



How the world looks to a person with a red/green color deficit (deuteranopia).



How the world looks to a person with a blue/yellow color deficit (tritanopia).



Some colorful hats.



As seen by a person with deuteranopia.



As seen by a person with protanopia, another form of red/green deficit.



VisCheck (<http://www.vischeck.com/vischeck/vischeckURL.php>)

Vischeck simulates how images and webpages would look to a person who's colorblind.

This can help you identify weaknesses in color selection.

Enter URL Here:



Linux

- Chrome 12.0
- Chrome 5.0
- Chrome 7.0
- Dillo 0.8
- Dillo 2.2
- ELinks 0.13

- Kazehakase 0.5
- Konqueror 3.5
- Konqueror 4.2
- Konqueror 4.3
- Konqueror 4.6
- Links 2.3



Windows

- Avant 11.7
- Chrome 10.0
- Chrome 11.0
- Chrome 12.0
- Chrome 13.0
- Chrome 14.0

- Firefox 6.0
- Firefox 7.0
- Firefox 8.0
- Flock 2.6
- Flock 7.0
- K-Meleon 1.5

- Opera
- Opera
- Opera
- Opera
- Opera
- Safari

Browsershots (<http://browsershots.org/>)

Browsershots shows you how your website looks in different browsers. This is helpful in seeing whether your site renders correctly in each of them.

5. Website Speedy

One factor of usability that's not completely evident is the need for a website to be speedy and responsive. In fact, web users deeply care about how fast they're able to get the information they need. The better performing a website is, the more efficient a user will be when completing his desired tasks.

Here are considerations for evaluating the speed of a website:

Webpage Response Time: How fast (in units of time, such as milliseconds) does it take to load an entire webpage?

Webpage Size: How big is the webpage, in terms of file size?

Code Quality: Does the website use web development best practices for website performance?

Full Page Test

DNS Health

Ping and Traceroute

Test the load time of a web page

Enter a URL to test the load time of all elements on that page, find bottlenecks

Test Now Save test

Example: "www.mywebsite.com"

Testing finished: <http://sixrevisions.com>

Load time in seconds	URL	Size(KB)
1	http://sixrevisions.com/	25.6
2	http://sixrevisions.com/wp-content/themes/SixRevisions/style.css	11.5
3	http://sixrevisions.com/wp-content/plugins/wp-pagenavi/pagenavi.css.css	1.8
4	http://s2.buyseeds.com/ac/usa.in	13.5
5	http://sixrevisions.com/0212-01_d1_light_textured_webdesign_thumbnail.jpg	44.9
6	http://visions.com/0211-01_passionate_motivated_webdesigner_thumbnail.jpg	29.1
7	http://cdn.sixrevisions.com/0210-01_crazy_coding_tea_thumbnail.png	35.5
8	http://sixrevisions.com/0209-01_wheat_tea_power.png	18.8

Pingdom Tools (<http://tools.pingdom.com/fpt/>)

This free, web-based tool reports your website's response time and webpage size.

 **55 / 100** Mobile

 **65 / 100** Desktop

Speed

Should Fix:

Leverage browser caching
▶ [Show how to fix](#)

Eliminate render-blocking JavaScript and CSS in above-the-fold content
▶ [Show how to fix](#)

Speed

Should Fix:

Leverage browser caching
▶ [Show how to fix](#)

Eliminate render-blocking JavaScript and CSS in above-the-fold content
▶ [Show how to fix](#)

Prioritize visible content
▶ [Show how to fix](#)

Minify HTML
▶ [Show how to fix](#)

Enable compression
▶ [Show how to fix](#)

Optimize images
▶ [Show how to fix](#)

Consider Fixing:

Minify CSS
▶ [Show how to fix](#)

 **3 Passed Rules**
▶ [Show details](#)

User Experience BETA

Not currently a part of the overall score

Should Fix:

Use legible font sizes
▶ [Show how to fix](#)

Page Speed Insights (<http://developers.google.com/speed/pagespeed/insights/>)
This tool from Google evaluates your site based on its best practices for web performance.

6. User Experience

User experience (UX), at its core, tries to study and evaluate how pleasant a website is to use. This factor is largely subjective because it deals with user perception, which can be vastly different from one user to the next.

The way UX can be evaluated is through user feedback. By asking questions of users, you can gain a better understanding of how they feel about the site.

Some considerations when evaluating UX:

Fulfillment: Do users feel satisfied after interacting with the website?

Usefulness: Does the user feel like he's obtained value from using the website?

Enjoyment: Is the experience of being on the website fun and not burdensome?

Positive Emotions: Do users feel happy, excited, pleased, etc. when they interact with the site?

FEEDBACK  ARMY

HOME • REQUEST FEEDBACK • FAQ • SAMPLES • CONTACT

Simple, Cheap Usability Testing for Your Website.

Start a usability test for your site in two minutes. Submit questions about your site and receive 10 responses from our reviewers. The cost is \$15.

Follow these easy steps:

1. Request Feedback
2. Make Payment
3. See Results!



- ★ REQUEST FEEDBACK
- ★ SEE EXAMPLE RESULTS
- ★ USABILITY TESTING TIPS

"What I especially like about FA besides that it gives tremendous information value for the money is its ease of use, speed, and elegance"

Arjan Y., The Netherlands

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Feedback Army logo and social media icons

Feedback Army (<http://www.feedbackarmy.com/>)

Feedback Army gives you the ability to pose open-ended questions to website reviewers. You get 10 responses for \$20.

Suggest you ...

Enter your idea

Vote

Enter your email address ...or, sign in with  

EMAIL Required, but not displayed

NAME Display name

Remember me

I agree to the [Terms of Service](#)

0 votes left!

[What happens if I run out?](#)

Product Feedback activity feed

Contact UserVoice

437
votes

make it possible to "watch" suggestions

I would like to be able to "star" certain suggestions that I want to remember (if I have no more votes but want to keep tabs on interesting suggestions).

vote

by torbengb in [End-user features](#) |  **26 comments**

Status: under review

This feature is something we're actively investigating and trying to shape to fit your needs. If you haven't left a comment, please do: context for why you need this feature and how you'd use it is key to making it rock!

UserVoice (<https://www.uservoice.com/>)

UserVoice gives you facilities for obtaining and managing feedback from your users. If you choose to, you can make feedback public and allow other users to vote. This can let you see popular opinions and shared thoughts among your user base.