



Glossary of Usability Terms



Glossary of Usability Terms

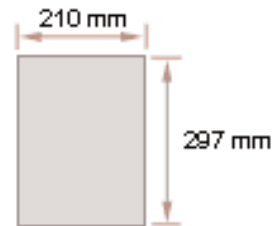
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A

A4 paper size

A4 paper size A standard paper size (210 x 297 mm) widely used in countries using the metric system.



A4 Portrait

Above-the-fold

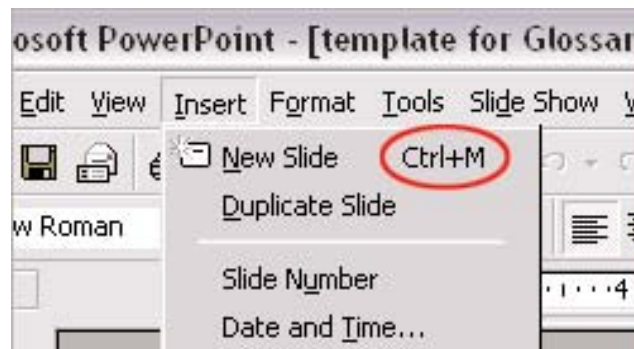
For Web pages, the area that is visible upfront before scrolling the page. The term is derived from the space as seen on the front page of a newspaper when folded in half.



Most important matter is placed above the fold.

Accelerator keys

Shortcut keystrokes that instantly perform an operation.

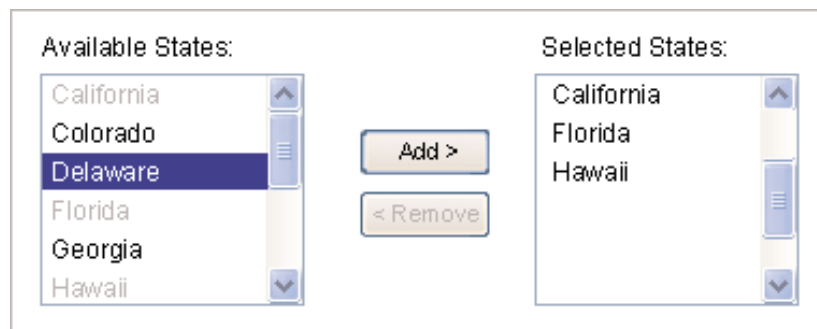


Pressing "Ctrl" and then "M" in MS PowerPoint™ inserts a new slide.

Acceptable margin of error A criterion, based on sample size, which helps determine the level of confidence you can have in your research findings.

Accessibility Accessibility is about providing access to information for as many people as possible—by working in a variety of operating contexts, and using a multitude of browser technologies to access information published on the Web. Mistakenly used in context of catering to disabled users only. (Also see Section 508.)

Accumulator A graphic widget that allows the selection of multiple items from a list into a new functional group.



Accumulator

Active listening An interviewing technique in which the interviewer rephrases the interviewee's responses to confirm understanding. Rephrasing should be neutral and provide opportunities for interviewees to describe issues in greater depth.

Active voice

Active voice A sentence structure where the subject performs the action of the verb and the object receives the action. For example, "The user selects the drop-down box." Active voice differs from the passive voice wherein the subject receives the action. For e.g., "The drop-down box is selected by the user." (Also see Passive voice.)

Ad hoc navigation

Ad hoc navigation A navigation structure that involves representing words or phrases within sentences or paragraphs as embedded hypertext links. This adds more flexibility to the formal navigation structure and freedom to emphasize important or salient content. (Term coined by Rosenfeld and Morville,1998.)

When [links](#) are a part of a paragraph, they are called [embedded links](#). Since they are surrounded by text, [users](#) are very likely to miss these links. This problem can be solved by creating a separate list of ad hoc links at the end of the paragraph as related resources.

- [Links](#)
- [Embedded links](#)
- [Users](#)

Embedded links

Advanced prototype

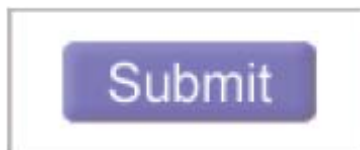
Advanced prototype A reasonably detailed, full-scale, and usually working model of a new application or Web site used to test the effectiveness of the application or site. (Also see Early prototype.)

Aerobic widgets

Aerobic widgets An effect wherein, after a user makes a selection, fields shift all over the screen to allow enabling and disabling of further input based on that selection. This is obviously undesirable. It is often advisable to use "Deferred Create" areas instead. (Term coined by Deborah Mayhew.)

Affordance

When a control behaves as its appearance suggests. For example, a push button is said to have good affordance when it looks clickable. A pushbutton that does not look clickable or a non-clickable image that looks like a pushbutton, are examples of poor affordance. Good affordance provides intuitive interaction.



Good Affordance



Bad Affordance

Affinity diagram

A group decision-making technique designed to sort a large number of ideas, concepts, and opinions into naturally related groups. Used in documenting task or content relationships, often created from card sort activities or group brainstorming.

Alert messages

A message, generally modal, sent to warn the user of the nature of the consequence of an action performed by the user. Alert messages typically convey errors, warnings, or important notes.

Aliasing

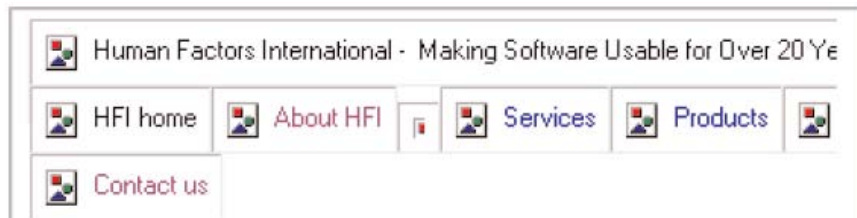
The jagged or stair-stepped appearance of a bitmapped font or graphic image. (Also see Jaggies, Anti-aliasing.)



Aliasing

ALT text

ALT text In HTML, a short text description of an image. It is added to aid non-graphical browsers, and appears if the image cannot be displayed.



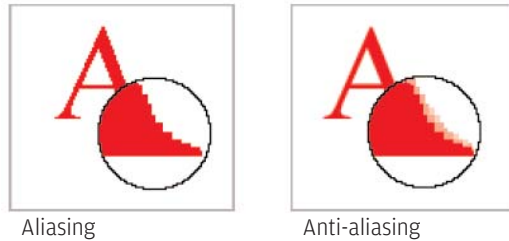
ALT text

Analysis paralysis

A situation where designers spend too much time reducing data or analyzing tasks at the cost of overlooking emerging opportunities for design improvement and this analysis phase only ends when the project is cancelled.

Anti-aliasing

The process of filling out the jagged edges of an image or typeface with additional pixels. The color of the pixels is averaged between the type color and the background. (Also see Aliasing.)



Application service providers

Businesses that offer online applications for rent, often providing customized or niche utilities for corporate or consumer use on a monthly or annual basis. E.g., E-mail service providers such as Yahoo or Google.

Ascender

Ascender In typography, the upward vertical stem on some lowercase letters, such as "f" and "b," which extends above the x-height.



Ascender line marks the top of ascenders

Audio browsers

Audio browsers A non-graphical Web browser that converts Web pages into speech using a speech synthesizer. E.g., JAWS® by Freedom Scientific, Screen Reader/2 from IBM.

Auto complete

A process whereby a drop-down list, combo box, or text entry field fills in once the user has typed enough characters to have a complete match.

	A	B	C
1	Name	Location	Title
2	Adam	Atlanta	Accountant
3	Adamson	Chicago	Manger
4	Charles	Atlanta	Trainee
5	Brown	Boston	Accountant

Text automatically filled in when user types matching character

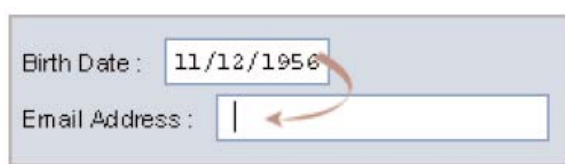
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Auto correct

A feature that corrects common and obvious input errors (such as spelling). It may ask the user to confirm the correction if the error is uncommon or has more than one possible correction.

Auto skip

A feature that automatically takes the cursor to the next text entry field after the user reaches the end of the previous field without having to hit "Tab." This reduces one keyboard entry, but turns out to be a nuisance as the "skipping" does not happen if the user does not reach the end of the field. In such cases, the "Tab" still has to be used. The user then goes into a pattern of hitting "Tab" after every entry and ends up skipping a field altogether after reaching the end of the previous field.



Cursor automatically moves to the next box after reaching the end of the previous box

B

Baseline

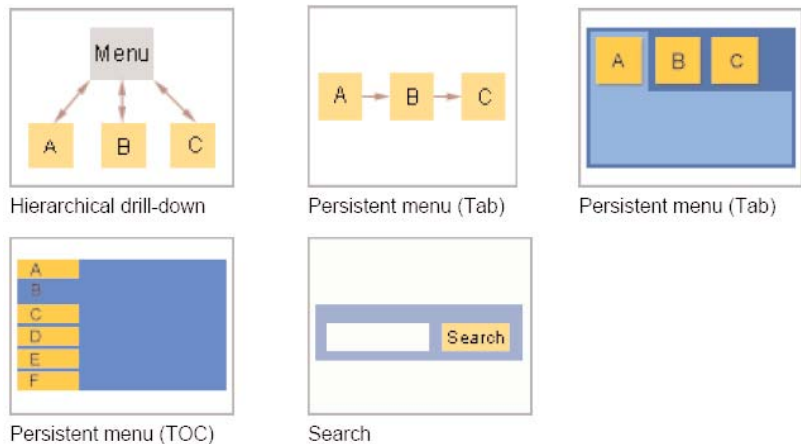
In typography, the imaginary line upon which a line of text rests.



Baseline marks base of the text

Basic navigation model

An elementary model for navigation that defines how a user can move within a site. The basic models are:



These models support primary user tasks. When used in combination, they support complex task requirements.

Behavioral response

Actions performed by a person as a conscious reaction to external or internal stimuli. (Also see visceral response, reflective response.)

Belt and suspender rule

A metaphor for using attributes one at a time. For example, make the header bold or increase the font size; not both. When using a belt, one doesn't need suspenders.

The diagram illustrates the Belt and Suspender Rule with three examples of text formatting:

- Things to remember (Bold Text):** A green checkmark indicates this is a correct application. The text reads: "Rule one says never forget to take your keys before closing the car door. Many people just don't remember this rule. So, rule two says never forget to keep your car mechanic's phone number into your wallet."
- Things to remember (Increased font size):** A green checkmark indicates this is a correct application. The text reads: "Rule one says never forget to take your keys before closing the car door. Many people just don't remember this rule. So, rule two says never forget to keep your car mechanic's phone number into your wallet."
- Things to remember (Increased font size + Bold Text):** A red 'X' indicates this is an incorrect application because it uses both attributes. The text reads: "Rule one says never forget to take your keys before closing the car door. Many people just don't remember this rule. So, rule two says never forget to keep your car mechanic's phone number into your wallet."

Belt and suspender rule :To show font hierarchy, increase font size, or make text bold; not both

Benchmark testing

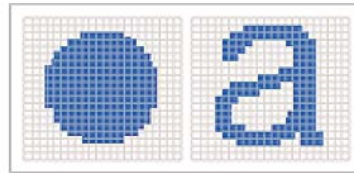
Testing an application against a set of standard best practices or established criteria.

Bit-depth

Refers to the resolution of the color palette in terms of bytes; 8-bit color palettes provide 256 available colors while 16-bit color palettes provide 65,536 colors.

Bitmapped

A font or graphic image made up of a pattern of pixels in a rectangular grid. Bitmaps are aliased (see Aliasing). The stair-step effect is produced by the square shape of the pixels, and enlarging such an image magnifies this effect. (Also see Vectored.)



Bitmapped image and font



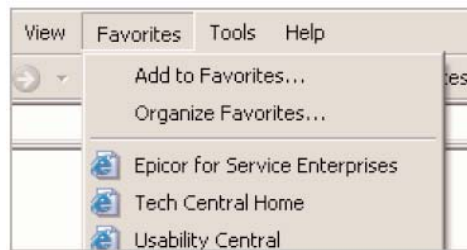
Vectored image and font

BOBBY

A Java application that tests a Web page for accessibility.

Bookmark

1. A list of favorite Web sites stored by a Web browser, also called 'Favorites'.
2. Target of a link within a Web page, also called an anchor.



Web browser bookmark - favorites



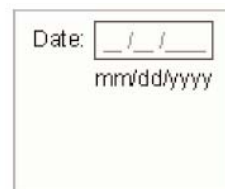
Web page bookmark - anchor

Bounded field / Unbounded field

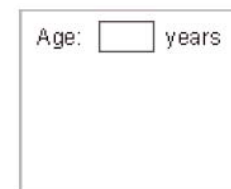
The ability of a control to allow for freeform entry versus forced selection from a set of options. A bounded field (e.g., list box) forces selections making it less error prone than a text entry field, which supports freeform entry. A text field with a format mask gives the field a bounded quality, making it less error prone (e.g., date fields with format slashes).



Bounded field



Bounded field with format mask



Unbounded field

Braille terminal

A device that converts text from a computer application or Web page into Braille, allowing a visually impaired person to use a computer.



Braille terminal

Branding

The deliberate process of creating individuality and market value around the concept of a product name. Effective branding efforts enable companies to convey distinctiveness and value to their various audiences.

Branding elements

Elements such as graphics, text, theme, etc. used to create branding.



Branding elements

Breadcrumbs

An auxiliary form of navigation consisting of a trail of links, indicating where the user is in the site hierarchy, and also allowing the user to navigate back up one or more levels.



Trail of links from the home page to the current page

Browse system

A term for the menu of links that depict the major areas of the site and its sub-levels. The browse system is the primary content organization and navigation system for large content sites. Browsing is a form of user interaction that supports information seeking and learning through the associations of content links and elements designed into the site.



A system of links with sub-levels

Bug-tracking system

Bug-tracking system A computer program that is intended to track down and repair a bug. A bug is a programming error that causes the computer to crash or perform incorrectly.

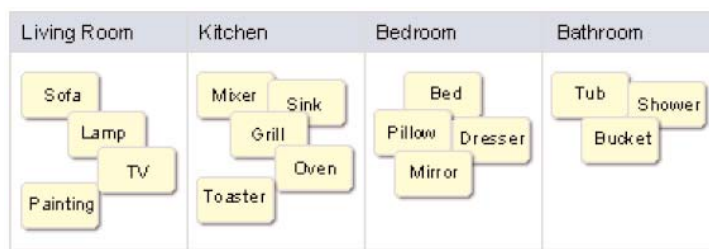
Bulletin Board Service (BBS)

An online service where users can download files and games, ask questions, post announcements, and hold discussions on a particular topic.

C

Card sorting

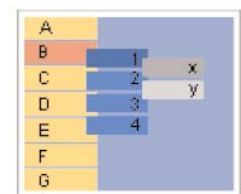
A technique to investigate how users tend to group items in order to maximize the possibility of their finding what they are looking for on the Web. The users are given a set of cards containing individual item names and are told to sort them into related piles and label the groups. Card sorting provides insight into the user's mental model and suggests the structure and placement of items on a Web site.



Card sorting technique to identify users' mental model of information architecture

Cascading menus

A hierarchical menu system that appears as the user highlights individual items in the menu. The number of levels in the hierarchy can vary. A cascading menu hides site content, and can require a high degree of manual dexterity to manipulate, causing frustration as the number of levels increases.



Cascading menus

Cascading style sheets (CSS)

A mechanism for specifying how a Web page looks without affecting its HTML structure. Styles define attributes such as color, font size, alignment, and spacing. The term cascading is used because more than one Style Sheet can affect the same page. CSS standards were created by the World Wide Web Consortium (W3C).

Check digit

A digit in a numeric code that is derived from the code itself and made a part of it. A local program validates the code by recalculating the check digit and comparing it with the rest of the code. This precludes the need to accessing the database to detect erroneous input of a code.

Checkbox

A control, in the shape of a small box, used in forms or dialog boxes that users can check or uncheck to agree or disagree with the text written next to it. Checkboxes are independent of other checkboxes (as opposed to radio buttons which are mutually exclusive). Thus the user can make multiple choices from a group of selections.



Checkbox

Chromatic aberration

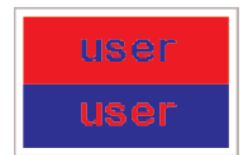
The blurring of colors in an image caused by the unequal refraction of light rays of different colors passing through a lens, whereby all the colors do not focus at a single point. E.g., our eye cannot focus red and blue light on our retina, causing chromatic aberration.

Color blindness is an inaccurate term for a lack of perceptual sensitivity to certain colors. Absolute color blindness is almost unknown. There are three types of color receptors in our eyes: red, green, and blue. We also have black and white receptors.

Chromatic aberration with red and blue text

Chromostereopsis

The visual effect of vibration or floating when the eye is attempting to accommodate at extreme ends of the color spectrum (e.g., when reds and blues are placed side by side).



Chromostereopsis

Click stream

Click stream The trail of mouse clicks made by a user while performing a particular task. It often refers to linking from one page to another on the Web.

Cognitive friction

A term relating to the relative difficulty of a task and the mental effort required to complete it. Tasks that present choices and actions in accordance to the user's expectations are considered as having a low level of friction, while those that require deliberation are said to be high in cognitive friction.

Cognitive walkthrough

A usability testing strategy in which a developer group systematically evaluates each element on every screen in the context of the various tasks (e.g., how likely would a user click this button for Task A? What would happen if they did? Etc.).

Color depth

The number of colors that can be displayed on a monitor at any given time. For example, the Video Graphics Array (VGA) standard allows a color depth of 256.

Combo box

A combination of a text entry field and a drop-down list to allow users to either select from existing options or type a completely new entry.



Drop-down combo box

Common region

The Gestalt principle of grouping that states that items grouped within a region (e.g., using a background plane) tend to be perceived as belonging together.



Grouping by common region

Comparison tests

Tests done at almost any stage of the development life cycle that compare applications against a set of established criteria. These tests can be done with users (referred to as a within subjects test) or by experts.

Compound controls

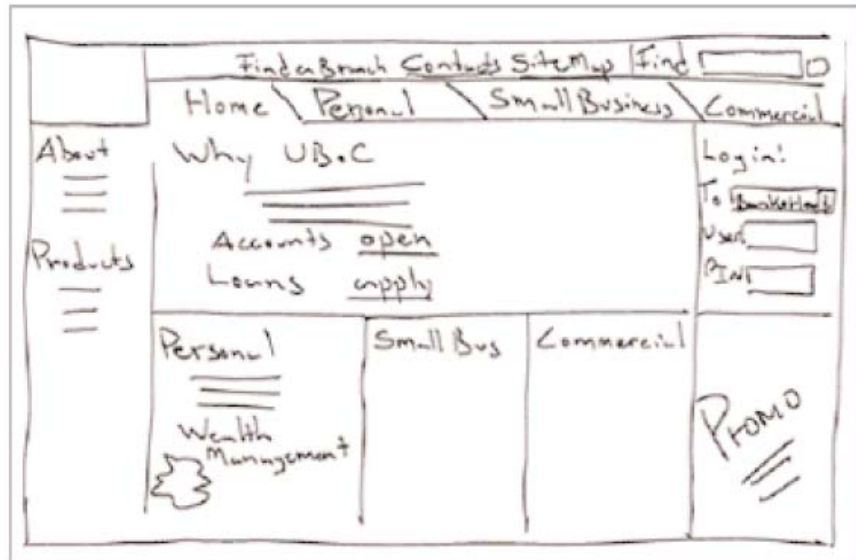
More than one type of control is combined to give the appearance of a single control, e.g., combo box.

Computer expertise

A relative comfort with technology; adeptness while using a computer or advanced technology. (Also see Domain expertise.)

Concept sketch

An outline drawing to indicate ideas about how to solve a specific design problem. It excludes the level of detail that goes into the final product. Concept sketches are used at the beginning of the design process to quickly explore different ideas and to narrow down to an effective design.



Grouping by common region

Conceptual

Represents a system structure, as users perceive it. Begins the transition from research and planning into precursors for design. Sets the foundation for developing a site navigation framework by clearly defining the users, their tasks and environment, and how they conceptualize information.

Conceptual model

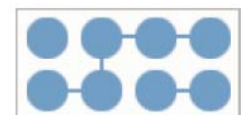
A model constructed by the users in their mind to understand the working or the structure of objects, with previous experience to speed up their understanding. Also called mental model.

Confirmation bias

The human predisposition to notice information that is consistent with our current beliefs but to ignore information that conflicts with our current beliefs.

Connectedness

The Gestalt principle of grouping that states that items connected with visual elements (e.g., lines) tend to be perceived as belonging together.



Grouping by Connectedness

Content design

A term given to a set of design areas that focuses on the information value of content, as opposed to the presentation of it. The content topics include editorial style, internationalization, and accessibility. The term content design intends to differentiate these topics from other topics for purposes of evaluation and development.

Content graphic

A type of graphic designed for the purpose of providing specific content, as differentiated from graphics that add aesthetic value or brand value. Examples of content graphics include complex charts, maps, and product photographs. Of all the graphic types, content graphics are the most likely to serve as a destination in their own right, as opposed to a marker for entry into information (e.g., icon).



Complex chart



Map



Product photograph

Context effect

The effect of surrounding elements on the perceived meaning or use of an isolated element. For example, the meaning of an individual link.



The meaning of the word "Advanced" is perceived in context with "Search"

Context sensitive popup menu

A short list of choices or instructions with information that is customized for a particular area of a program, appearing on screen in a small window.

Contextual inquiry

A direct data gathering method in which the usability analyst shadows an end-user through their day/ tasks. Helpful for developing a clear understanding of both the context of the tasks and a compressive environmental analysis.

Conversion rate

Typically, the percentage of site visitors who actually buy something on the site.

Cookies

A small file with user-specific information that the server writes to the users' hard disk for later access. Originally intended as a mechanism for customization (remembering favorite purchases and wish lists, storing shopping cart contents), they have resulted in serious concerns about privacy issues.

Cross checking (cross validation)

Error checking technique usually applied to forms that compare two or more field inputs.

Customer-developer links

As defined by Keil and Carmel (1995), connections between developers and end-users in the software development process. These can be direct (developers talk to end-users) or indirect (developers interact with intermediary user representatives).

D

Decision table

An information mapping technique that simplifies complex logic presented in textual form by re-writing it as a visual table.

If the order is...	And pay experience is...	Then...
Equal to or below credit line	→	Approve Order
Above credit line	Good	
	Bad	Reject Order

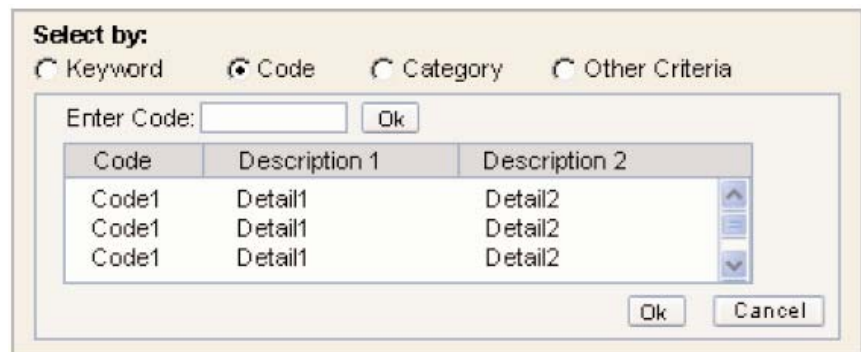
Table to aid faster decision making

Deferred create

Refers to the technique of reusing an area of a page or window for dynamically displaying content based on a user's selection.



Dialog that appears after selecting "Keyword"



Dialog that appears after selecting "Code"

Descender

In typography, the portion of some lowercase letters, such as "g" and "y," which extends or descends below the baseline?



Descender line marks bottom of descenders

Design moves

Changes made to the design based on test results.

Design validation

A post hoc evaluation that the site has the functions and elements identified as needed in the user analysis. Tests the correspondence of the design with the end users' actual needs.

Design verification

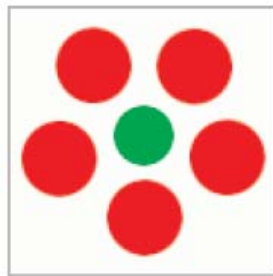
The process of confirming that the interface, as built, corresponds with the design that was specified. In contrast, design validation tests correspondence of the design with the end users' actual needs.

Detailed design

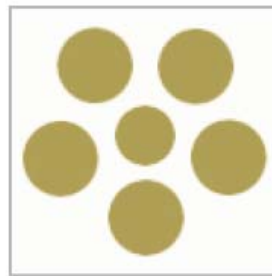
A step in the design process, followed by high-level structure, navigation and architecture, that focuses on presentation, content and interaction issues. Advanced prototypes are generated to test detailed page elements such as controls, color, graphics, and wording.

Deuteranopia

A specific type of color weakness based on the reduced ability to perceive colors within the green spectrum. Reportedly the most common type of color weakness.



As seen by person with normal vision



As seen by person with Deuteranopia
= Red Green deficiency

Direct manipulation

Performing operations by making changes to data directly, such as clicking on it, dragging it, resizing it, and typing over it, as opposed to indirect operations such as typing commands in a menu line or using menus and dialog boxes.

Direct user data

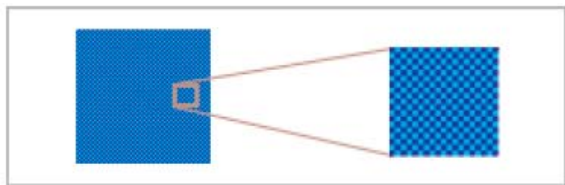
User data collected through direct, face-to-face interaction with endusers. Methods include direct interviews, focus groups, and usability roundtables. (Also see Indirect user data.)

Discount testing

Simple and low-cost testing techniques. Usually done early in design. Discount testing has less formal controls and structure.

Dithering of colors

Mixing dots of various colors to produce what appears to be a new color. Dithering produces a variable color palette apart from the 256 Web-safe colors.



Intermediate shade of blue created through a pattern of pixels of two different values of blue

Document Type Definition (DTD)

In SGML, a complete definition of a markup language defining elements of the document as well as the tags used to identify them.

Domain expertise

Knowledge of a particular topic or focus of an application or tool. E.g., the application of “TurboTax” in the domain of income tax preparation and law. Domain expertise is distinct from computer expertise.

Drop-down list box

A list of limited options that is displayed below a field after clicking it, to avoid errors and save key-strokes.

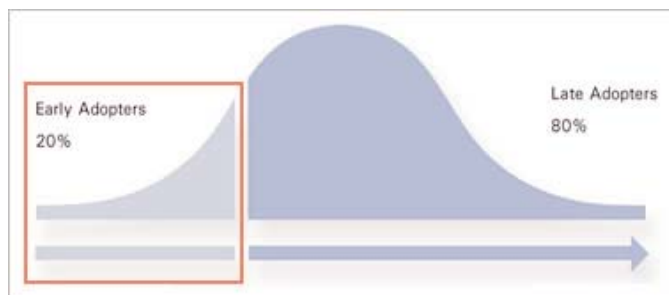


Drop-down list box

E

Early adopters

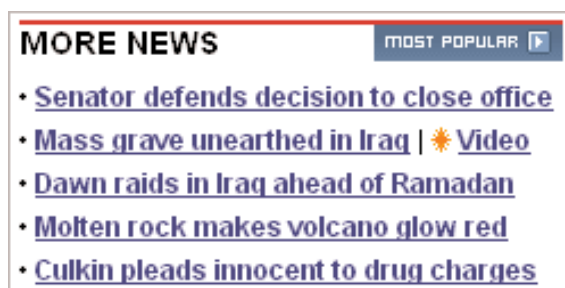
Individuals who integrate new technologies in their lifestyle as soon as they are available—often well before the general public begins to use the technology.



Individuals who use the product early in its lifecycle

Editorial links

A term for links that dynamically come and go on top-level pages of a site depending on the promotional needs of the site. To be differentiated from browsing or search elements that remain stable and permanent on the site over time.



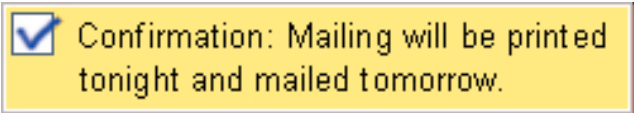
Dynamic links on the top-level pages of the site

Glossary of Usability Terms

Efficiency	A usability metric that captures how easily a task is completed with a given interface (e.g., time for completion, number of key-strokes for completion). Must be measurable in quantitative terms.
Environmental profile	A snapshot of the circumstances external to the users and their tasks, which affect their accomplishing their goals with the system. Includes the setting, circumstances, and physical systems used. (Also see Task profile and User profile).
Error analysis	A component of task analysis, which strives to identify the frequency and types of errors that occur for a specified set of task flows. Can include Errors of Omission, Errors of Commission, Sequence Errors, or Timing Errors.
Error of commission	A type of error in which a user performs an act incorrectly. This could involve providing an incorrect input, for example. (Also see Error of omission, Sequence error.)
Error of omission	An error in which a user fails to perform a specific task or step (Also see Error of commission, Sequence error.)
Error rate	Number, frequency, or proportion of errors (relative to correct completions) for a given task or interface.
Executive champion	A person in an organization who takes upon himself the task of advocating usability and encourages products to be designed with the end-user's needs in mind. Also called key opinion leader.
Expectancy test	An early usability test to evaluate the initial mental model of the user and their expectations about what the application or site would do. This test is usually done prior to a performance test.
Explicit save	A data-saving feature that requires the user to clearly state that the data needs to be stored in the memory. (Also see Implicit save.)

Glossary of Usability Terms

F

Facilitated workshops	Meetings in which developers and users convene to discuss aspects of an interface under development. Sometimes called Joint Advisory Development (JAD) sessions.
False bottoms	Something that looks like the end of a page, but isn't.
Feature centric	Refers to a mindset that focuses primarily on a checklist of features offered by a product rather than on its usability.
Feature creep	Excessive provision of features in a product in an attempt to make it more technologically competitive but failing in usability.
Feedback message	<p>A message that tells the user that an action has been completed successfully.</p>  <p>Feedback message</p>
Focal points of design	The four focal points of design that evolve during the design process are navigation, content, presentation, and interaction design.
Focus groups	A direct data gathering method in which a small group (8-10) of participants are led in a semi-structured, brainstorming session to elicit rapid feedback about an interface under development. Focus group data is most useful for generating new ideas or functions for an interface, rather than evaluating an existing one. Group dynamics often make focus group data suspect.
Fold	The line below which a Web page cannot be first visible without scrolling. (Also see Above-the-fold.)

Font salad

Excessive usage of font families, styles, and sizes in one single page.



Too many fonts styles and sizes give a chaotic appearance to the page

Forced device jumping

The result of designs that continually requires the user to move from one input device to another unnecessarily.

Formative testing

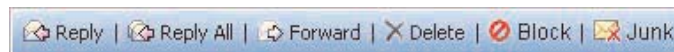
Testing the design during development to answer and verify design decisions. Results are used to modify the existing design and provide direction. Usually done with paper prototypes. (Also see Summative testing.)

Free exploration test

A usability test in which participants are asked to use the site without scenarios in order to procure more realistic data on how the site is typically explored. This test provides useful insights on how choices are made on a site.

Function

General means or action in which a system or sub-system fulfills its requirements. Usually expressed in verb form, e.g., enables access to the "contact us" information.



E.g. Functions for an email interface

Functional allocation

The distribution of task responsibilities across humans and technology for a given task or function.

Functioning prototype

A Web design prototype that functions almost like a final product. Such a prototype is used in Web usability tests especially where navigation is the most critical.

Fusing data

Bringing multiple levels of information into a single view in order to simplify the decision making process.

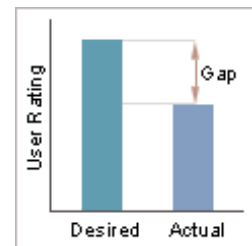
<u>Business & Economy</u> B2B , Finance , Shopping , Jobs...	<u>Regional</u> Countries , Regions , US States...
<u>Computers & Internet</u> Internet , WWW , Software , Games...	<u>Society & Culture</u> People , Environment , Religion...
<u>News & Media</u> Newspapers , TV , Radio...	<u>Education</u> College and University , K-12...

Multiple levels of information hierarchy placed together

G

Gap analysis

A technique used to determine the difference between a desired state and an actual state, often used in branding and marketing. Gap analysis may address performance issues or perception issues. Smaller gaps are better.



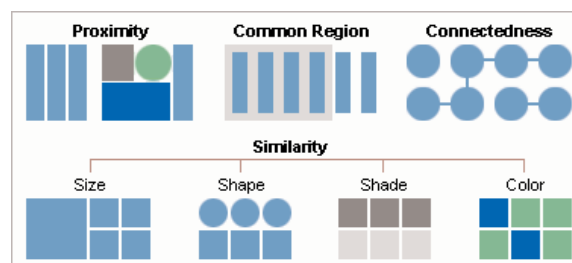
Gap between actual and desired states

General presentation rules

The guidelines within a Web standard that define the presentation rules for the pages including: use of branding elements, color, layout, editorial style, graphics, and typography.

Gestalt principles

A set of principles developed by the Gestalt Psychology Movement that established rules governing how humans perceive order in a complex field of objects. Gestalt principles of visual organization state that objects near each other, with same background, connected to each other, or having similar appearance are perceived as belonging to a group. (Also see Common region, Connectedness, Proximity, and Similarity.)



Gestalt principles of visual organization

Global navigation

Refers to page links that appear on every page, usually in the header or footer. It provides site-wide access to universal content or functions.



[Home](#) | [View Cart](#) | [Help](#) | [Site Map](#) | [Logout](#)

Links to universal contents from every page

Graphic mock-ups

Low-fidelity prototypes such as paper drawings, screenshots, or rough illustrations with graphical treatment, used for early usability tests and providing limited interaction.

Grid systems

A system of horizontal and vertical lines providing the underlying structure for page layout and design.



Single column grid



Two column grid

H

Heuristic evaluation / review

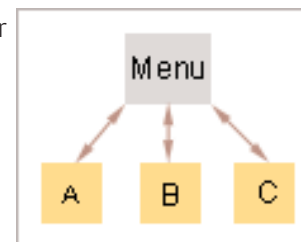
Also known as an expert review. Systematic inspection of a user interface design, measuring it against a set of usability heuristics in order to identify and prioritize usability problems. Comparison of a site with a very short and simple set of general principles. Heuristic reviews are quick and tend to catch a majority of the problems that will be encountered by users. However, expert reviews seldom use real end-users, so they may miss some interface issues.

Heuristics

Established principles of design and best practices in Web site design, used as a method of solving usability problems by using rules of thumb acquired from human factors experience.

Hierarchical drill-down

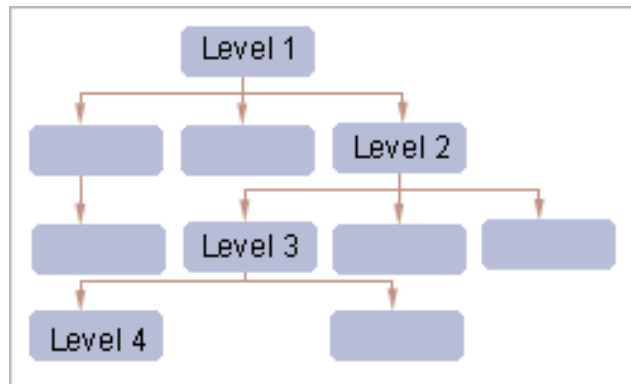
In Web site design, a type of structure where the user may jump from the home page to any number of pages and back to the home page again. (Also see Hub-and-spoke, Basic navigation structures.)



Hierarchical drill-down

Hierarchical structures (in information architecture)

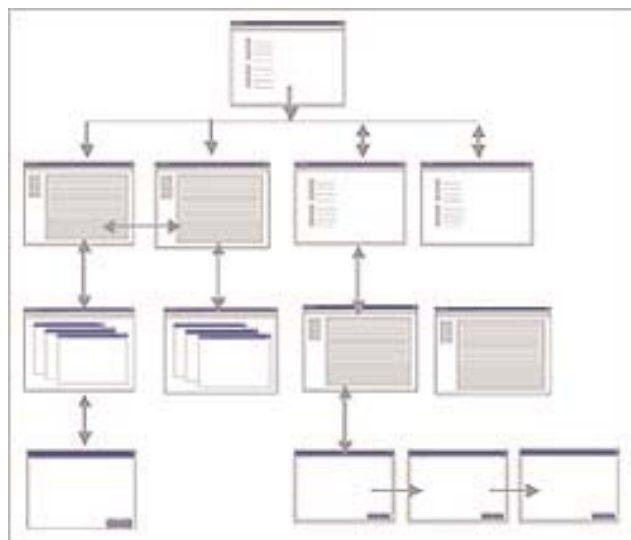
A set of various levels of groups and subgroups for categorizing items, often used to organize the content on a Web site.



Hierarchical structures

High-level structure

The architectural structure of a Web site. Most easily seen with a diagram of the entire site, all its pages, and their inter-relationships.



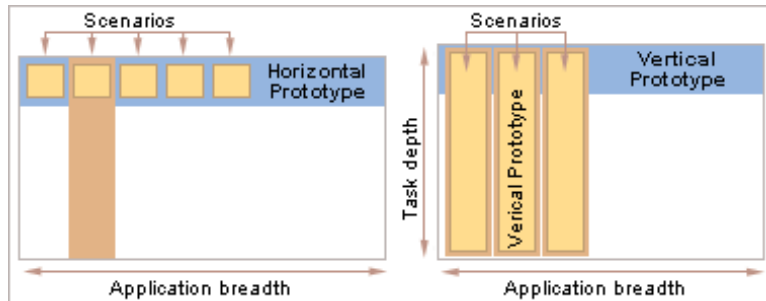
High-level structure of a site showing its pages and their inter-relationships

Hooks

In journalism, a hook is a technique used to grab the reader's attention. For example, a question: Would you like to lose ten pounds this week?

Horizontal prototype

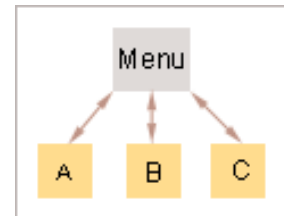
Prototypes that display a wide range of features without fully implementing all of them. Horizontal prototypes provide insights into users' understanding of relationships across a range of features.



Horizontal prototype

Hub-and-spoke

In Web site design, a type of structure where the user may jump from the home page (the hub) to any number of pages (spokes) and back to the home page again. (Also see Hierarchical drill-down, Basic navigation structures.)



Hub-and-spoke navigation

Hues

The frequency of the wavelength of color; what we normally refer to as the color of an object.



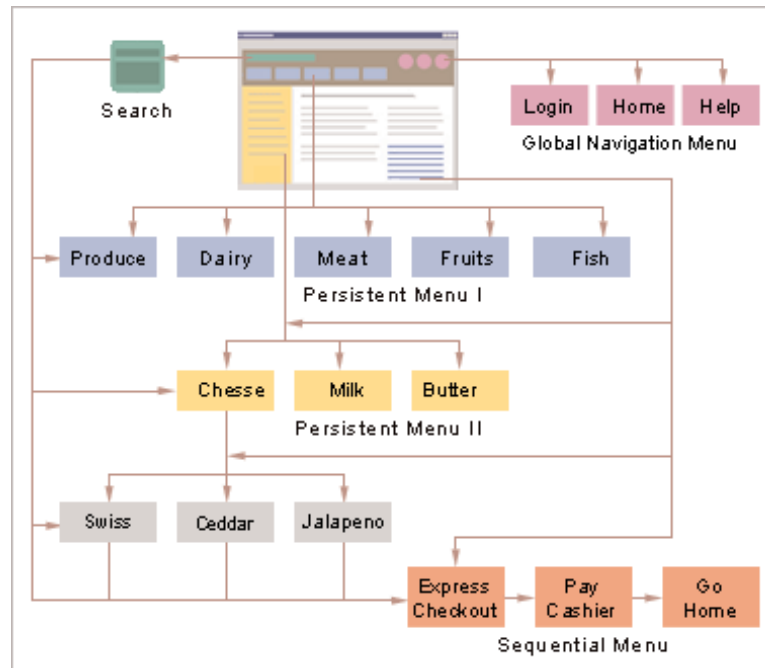
Various hues in a color palette

Human factors psychology

The study of the predispositions and constraints in human cognition, perceptual and motor systems in the context of interface development. That is, exploration of ways to develop safe and efficient technology and other artifacts such that they provide the best fit for human interaction. Traditionally the focus of Human Factors has been in engineering and industrial design systems such as aviation, military systems, manufacturing, and automotive design.

Hybrid navigation model (hybrid structure)

The combination of basic navigation models (e.g., a hub-and-spoke with a persistent model) that supports a user's task flow. Hybrid structures are typical of complex sites and often strive to flatten the information hierarchy to reduce the number of steps to content.



Hybrid navigation model using a combination of basic navigation models

Hyperlink

In a hypertext system, a link that takes the user to another page or another location within the same page. Hyperlinks are usually blue and underlined.



Hyperlink

Hypertext structures (in information architecture)

Cross-linked structures within a Web site or application. Hypertext structures are typically used to enhance navigation within hierarchical silos when the silos are not discrete.



Structure of pages linked with hypertext

Icon graphic

A type of graphic representing an action or object. Icon graphics are also used to augment navigation provided by links. They are different from graphics that purely offer content or add esthetic brand value. They are usually selectable.



Windows™ icons Web icons

Image map

A graphic containing selectable links or target areas.



Image map with selectable regions

Image placeholder

The text that appears while an image is downloading. Provides users with descriptive information about the graphic while they are waiting.



Image placeholders

Imperial measurement system A measurement system involving the use of yards, feet, and inches. Used by the United States and some English-speaking countries. The rest of the world uses the metric system.

Implicit save A data-saving feature that automatically saves data in the memory while it is entered and does not require the user to explicitly perform a save action. (Also see Explicit save.)

Indirect user User-centered data gathering methods that do not involve face-to-face interactions with the users. Data may originate from surveys, user analysts, or marketing efforts. (Also see Direct user data.)

Information architecture Part of the conceptual design stage; primarily associated with defining an organization for Web site content (but can include characterizing task flow or task relationships within a content organization). Includes the processes of defining site hierarchies, content organization, and labeling schemes for all types of menu systems, and the techniques for creating and evaluating them.

Interaction design A term given to a set of design areas that focuses on the interaction value of content, as opposed to its presentation or information value. The interaction topics include Web controls, error handling, and feedback systems. The value of the term “interaction design” is relative; i.e., it is intended to differentiate these topics from other topics for purposes of evaluation and development.

Interactive Voice Response (IVR) An interface system that accepts human voice as input mechanism, translates it into recognizable commands, and reacts accordingly. Such a system is becoming popular in telephones and mobile devices where other input methods are limited.

Interlaced image Interlacing is a process by which the image is displayed in a series of passes, each skipping a certain number of lines and the consecutive passes filling in the skipped lines. Images initially look “fuzzy” and become clearer as the file loads, giving the viewer a blurry preview of the entire image rather than a clear incomplete picture. (Also see Progressive image.)

Glossary of Usability Terms

International Organization for Standardization (ISO) A worldwide umbrella organization, headquartered in Geneva, Switzerland, that establishes non-proprietary standards. In the United States, the ISO is represented by the American National Standards Institute (ANSI).

Internationalization The process of generalizing a product so that it can handle multiple languages and cultural conventions without the need for re-design. It is the process of designing the implementation of a product that is as culturally and technically neutral as possible, and that can then be localized easily for a specific culture or cultures. (Also see Localization, Globalization.)

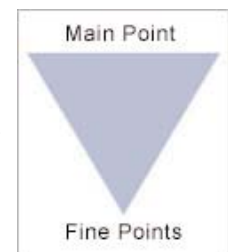
Internet capable I
A device capable of accessing the Internet.

Interocular test Only a statistician's joke. Means the numbers jump up and hit you between the eyes.

Interviews One-on-one interactions between end-users and usability analysts, designed to elicit the users' conceptual model of a system, the tasks and task flows, or other issues related to design. Direct interviews are the best way to capture user-centered data.

Intranet A private network, based on Internet technology, providing vital information to employees of a company or organization.

Inverted pyramid writing A form of writing where conclusions are presented right at the beginning or top of the pyramid, and the details and fine points at the bottom. This enables the reader to stop at any moment without missing the main points of the document.



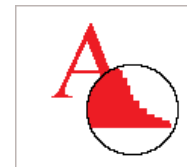
Inverted pyramid writing

Iterative testing Testing repeatedly as the design converges on a proper decision.

J

Jaggies

Another name for the undesirable stair-stepped appearance of a bitmapped font or graphic image. (Also see Aliasing, Anti-aliasing, Bitmapped, and Vectored.)



Jagged effect in a bit-mapped font

Joint Advisory Design (JAD) sessions

Meetings in which developers and users convene to discuss aspects of an interface under development. Sometimes called facilitated workshops.

K

Kerning

Adjusting the amount of space between characters so that the text displays with optimal legibility (or with the desired effect).



Adjusting letter spacing for improved legibility

Keyboard / mouse switching

The result of designs that continually requires the user to move from one input device to another unnecessarily. (Also see Forced device jumping.)

Knowledge training

Training that provides information about a particular subject through lectures consisting of a broad outline of the topics involved. This is meant only for creating awareness of the subject. (Also see Skills training.)

L

Labeling systems

The selection and placement of labels that best accommodate navigation.



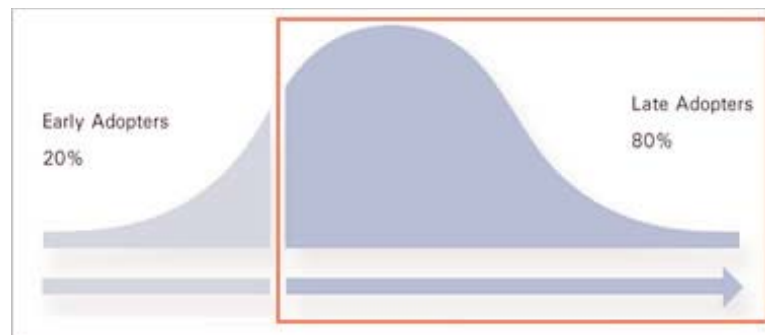
Placement of labels on tabs for suitable navigation

Landing Page

A specific Web page that is reached through direct links from another Web page. Also referred to as the page that a user is redirected to from a link in a marketing direct email message. Such a page is designed with the objective of a high “conversion rate,” i.e., converting the visitor into a customer.

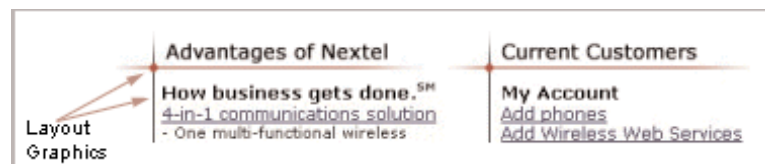
Late adopters

Individuals who are slower to adopt new technologies. They are typically more challenging to design for, because they tend to be more distracted by poor interface usability. In addition, they are less goal-oriented and tend to want a user experience. (Also see Early adopters.)



Layout graphic

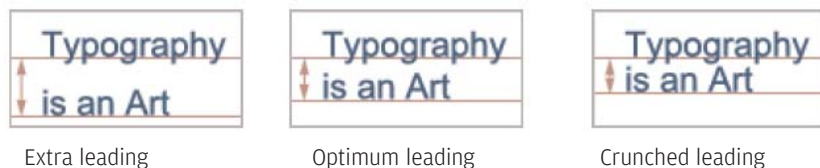
Graphics that help delineate, group, or divide content. A type of graphic designed for the purpose of organizing content, making it easy to comprehend or scan. Layout graphics are typically subtle and are least commented on by users. They can be used to support a brand or theme.



Graphics that are used to arrange content on a page

Leading

Leading is the vertical space between lines of text. Also called line spacing. It directs the eye horizontally along the text line.



Glossary of Usability Terms

Leaf Node

The last node in a tree structure that contains no further data or links. In navigation terms, it is the last page in any hierarchical structure. It is farthest from the home page and does not lead to any other page.

Learnability

A usability metric that measures how easy it is to begin productively using an application or interface. That is, how much if any training is required?

Lightness

The light or dark appearance of a color, i.e., the amount of perceived light present. (Also see Luminance.)



Lightness

Likert scale

A type of survey question where respondents are asked to rate the level on which they agree or disagree with a given statement on a numeric scale. E.g., 1-7, where 1 = strongly agree and 7 = strongly disagree. (Also see Rating scale.)

Line cues

A line placed strategically, usually between every five or six rows of text, to aid visual scanning.

Form Number	Tax Period	Status Restricted?	Module Balance
1	8106	Yes	7,835.19
1	8312		2,752.60
1	8609		6,798.20
2	8621		439.00
5	8703		16,789.28
6	8706		14,291.27
6	8709		536.72
6	8803		624.93
6	8806		327.68
10	8912		1,042.97
10	9006		987.28
10	9112		840.98
11	9203		1,246.22
11	9206		3,552.88
11	9209		227.45

Line cues

Line length

Refers to the number of characters per line, not the numeric measurement of the line.

Live site analysis

Refers to a range of techniques used to evaluate live Web sites including expert reviews (for general design issues and consistency checks), userperformance testing, split-site studies, surveys, server log analysis and competitive analysis.

Local navigation

Relative to global navigation, local navigation refers to navigation within a local area of a site or application. Includes sub-site navigation and page-level navigation. (Also see Global navigation.)



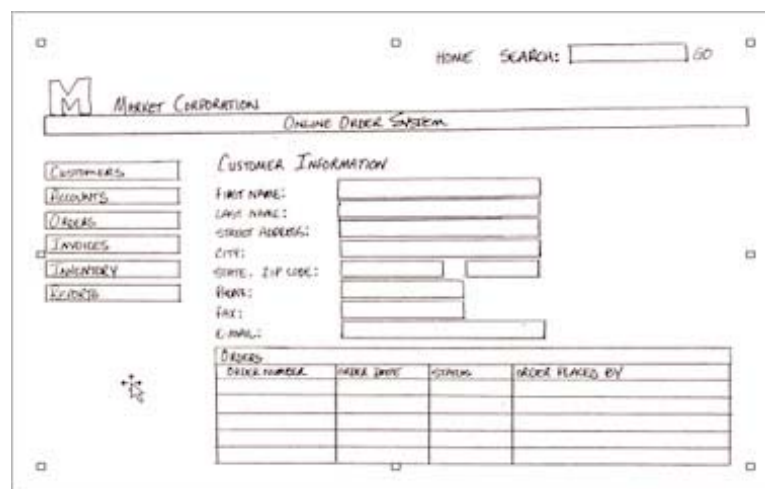
Navigation within a local area

Localization

The process of adapting a product to meet the linguistic, cultural, and other requirements of a specific target environment or market (or locale).

Lo-fi prototypes

Paper, PowerPoint®, or other non-interactive mockups of an interface developed early in design. Useful for evaluating the effectiveness of the navigation infrastructure and labels.



Non-interactive mockups in early stages of design

Luminance

The measurement of intensity of light. The subjective experience is brightness. (Also see Lightness.)

M

Marketing graphic

A type of graphic designed for the purpose of enforcing or establishing brand, including the company logo.



Marketing graphic

Masked data entry control

A specialized input control that aids the user in entry by providing formatting characters in the control (e.g. a phone number entry field that automatically formats the area code as distinct from the remaining numbers).

A screenshot of a web form for entering a phone number. The label "Phone:" is followed by a text input field containing "(111) 555-1212". To the right of this field is another text input field labeled "Ext:" containing "35". The entire input area is highlighted with a light gray background.

Automatically formatted area code in a phone number field

Memorability

A usability metric that measures how easy it is to remember how to use an application or interface after a period of non-use. Memorability metrics assume that users have used the interface successfully before.

Mental map or model

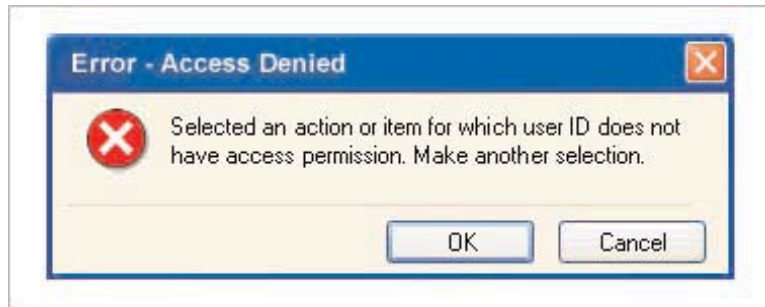
An internal representation of one's environment. Users form mental maps to help them navigate in space.

Metric system

A measurement system involving the use of meters, liters, and kilometers. Used by most of the world (except the United States and some English-speaking countries, which use the Imperial measurement system).

Modal dialog box

Refers to a mode of a page or window that guides the user interaction. A modal window requires the user to finish interaction on that page before a new page can be accessed (e.g., a dialog box that requires OK or Cancel to be selected before interaction can return to the primary window). A non-modal window allows for continued interaction with other application windows while the non-modal window remains open.



Automatically formatted area code in a phone number field

Moderated usability testing

A usability test in which a moderator provides instructions and information about tasks to be performed. The moderator also observes and participates as needed during the entire test.

Monetary format rules

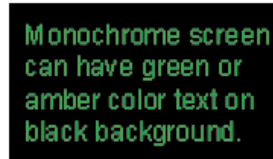
Rules for formatting monetary values in data entry fields. Symbols, punctuation, and length of characters vary with different nationalities.

Country	Currency Formats
Germany	1.324,00DM
Italy	Lit. 1.324
Turkey	1.324 TL
UK	£ 1,324.00
US	\$ 1,324.00

Examples of currency formats

Monochrome

Black and white or a single color with black. Early monochrome monitors had green or amber colored display on black or gray background.



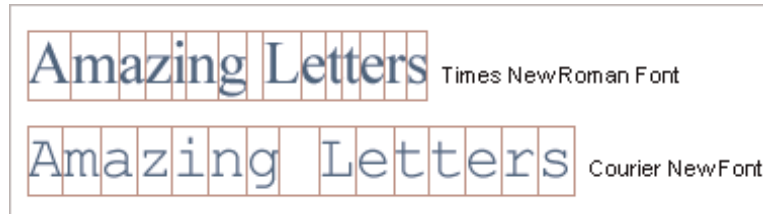
A monochrome screen display

Mouse-primary

When the use of the mouse takes precedence over the use of the keyboard. A task is said to be mouse-primary or keyboard-primary.

Monospaced font

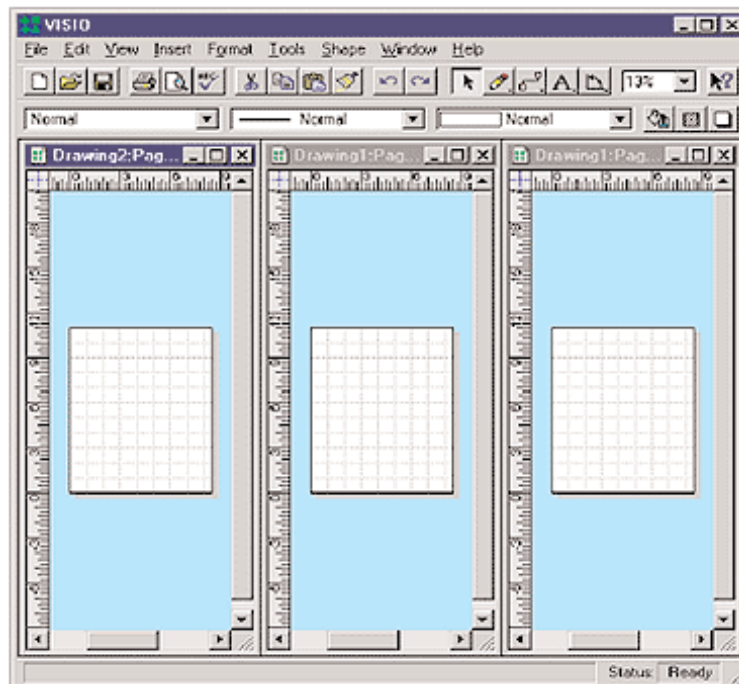
Typeface attribute in which every letter occupies the same lateral space, thus the "l" has lots of room while the "m" is cramped. This font is commonly used for input fields on forms, and in selected applications; but otherwise, it is the least readable category of type. (Also see Proportional font.)



Courier New is a monospaced font - each character has equal width

Multiple document interface

An application interface in Windows™ that displays and allows the user to work with more than one document simultaneously. This eliminates the need to load another instance of the application for each subsequent document. (Also see Single document interface.)



An interface accommodating three documents in a single instance of an application

N

Navigation design

Based on task design and information architecture definitions developed in conceptual design, navigation design marks the first formal step of design. It includes the development of wire frames and graphical mockups to test the site structure and visual direction. A set of core navigation pages are designed, tested, and iterated during this stage to ensure that the user interface structure is sound before investing in detailed design.

Negative advertising

The result of poor usability: unsatisfied users who tell others to avoid a site or process because of their bad experience.

Negative space

Unused white space.

Numeric format rules

Rules for formatting numeric values in data entry fields.

O

Operationalized variable

A variable or metric that has been defined clearly enough to be observed and measured in a way that is replicable.

Organization schemes

Logical grouping of content based on particular criteria. E.g. chronological, alphabetical, or geographical organization.



Organization structures

Relationships between content and groups.

Orienting response

A reflex as a response to something novel that occurs, where the individual stops what he is doing and turns his sensors to the source of stimulation.

P

Page flow

Refers to the arrangement of elements on a page suggesting a hierarchy or sequence.



Arrangement of elements on a page suggesting hierarchy

Page template

A term used to refer to a working model of a page for purposes of implementation on a Web site. A page template is a framework for building a Web page type, usually made available through a content management system.

Page types

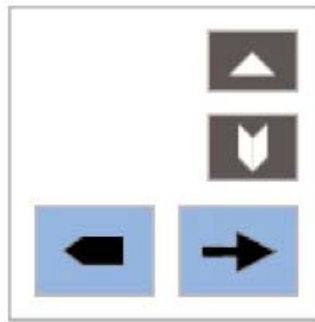
A term used to refer to a set of page components that together form a page designed to satisfy specific user requirements (e.g., a search and results page allows a user to query a database and review the results of the query). Page types form the basis of an effective Web standard.

Paper prototypes

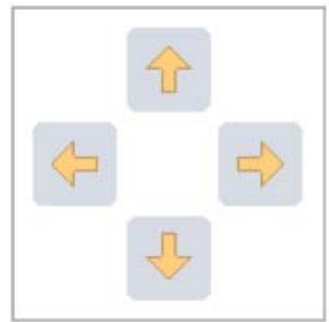
Non-interactive mockups of an interface developed early in design. Useful for evaluating the effectiveness of the navigation infrastructure and labels. (Also see Lo-fi prototypes.)

Parallel construction

Using the same format for every text or graphic composition, especially when constructing lists. E.g., items should be all sentences or all phrases, not a combination of the two. If an item starts with a verb, use the same verb format throughout. For example, action-object phrasing for menu items should be followed consistently for individual menu items within a group (e.g., view report, create new report, edit report, search report).



Inconsistent construction of icons



Parallel construction of icon

Parse

To separate into component parts. For example, an SGML parser can parse an HTML document to check for errors.

Passive voice

The voice of a verb tells whether the subject of the sentence performs or receives the action. In the passive voice, the subject receives the action of the verb. For example, the drop-down box is selected by the user. Passive sentences are generally longer, more complex, and more difficult to process cognitively. (Also see active voice.)

Path analysis and usage statistics

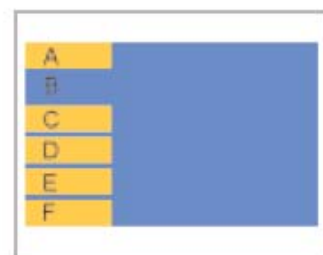
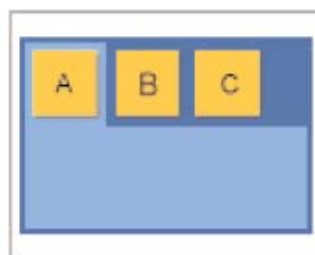
In the Web environment, various tools that yield a wealth of information about users' behavior on the site.

Performance data

Data that focuses on user behavior and/or how (well) users complete a task. Did the user get the right answer? Usability tries to focus on performance data rather than preference data. (Also see Preference data.)

Persistent context

Structure used for navigating across a range of tasks that are performed in conjunction with one another.



Navigation structures with persistent context

Personas

A concrete characterization of a single user group through a synthesis of the user, task, and environment profiles of that group. It provides detailed example of the potential end-user that represents a specific target audience type. Personas help developers think in terms of users by providing insight into how they might use the product. Especially helpful when there are no current users of the Web site.



Paula Grey

Professional Staff Member, Senate Agriculture Committee

- 42 years old
- Divorced, 1 child
- Law degree
- Very comfortable using a computer, intermediate Internet user, with high-speed connection at work and DSL at home for daughter.
- Uses email extensively; accesses web for about 2 hours a day for work.

Persona of a user of government site

Phi phenomenon

A perceptual illusion in which a disembodied perception of motion is produced by a succession of still images, as described by Gestalt psychologist Max Wertheimer (1912) after experimenting with flashing lights in quick successions causing apparent movement.



Phi phenomenon

Population stereotype

An established knowledge that a set of people have about the world, causing them to have strong expectations about how things should work, such as turning a knob or opening a door. People may thus be unpleasantly surprised if such expectations are not met with.

Practicality test

A test of the task flow's feasibility, given the nature of the users and their environment.

Preference data

Data that focuses on user perceptions. Did they feel that the task was easy? Do they like the way the interface works? Usability tries to focus on performance data rather than preference data. (Also see Performance data.)

Presentation design

A term given to a set of design areas that focuses on the presentation of information, as opposed to its information value. Presentation topics include layout, color management, graphics, and typography. The value of the term presentation design is relative; i.e., it is intended to differentiate these topics from other topics for purposes of evaluation and development.

Probes

The technique used in in-depth interviews to explore the interviewee's emotions about the given topic. The questions asked gently nudge the interviewees to disclose their feelings. E.g., "How do you feel about shopping online?"

Progressive disclosure

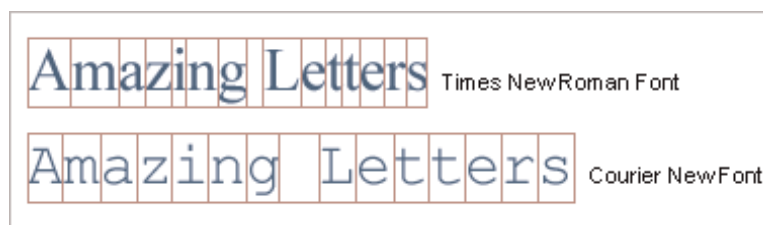
An interaction design technique that provides information in sequence across a number of steps with increasing level of detail as requested by the user, to reduce information overload on the user.

Progressive image

Also known as interlaced image. Interlacing is a process by which the image is displayed in a series of passes, each skipping a certain number of lines, and the consecutive passes filling in the skipped lines. The image initially looks "fuzzy" and becomes clearer as the file loads, giving the viewer a blurry preview of the entire image rather than a clear incomplete picture. (Also see Interlaced image.)

Proportional font

A category of type with variable horizontal space between each character. The shape and width of the character determine the amount of space needed on either side of it. This makes it easier and more pleasing to read. (Also see Monospaced font.)



Times New Roman is a proportional font - width of each character adjusted for optimum readability

Protocol simulation (user performance testing)

Individual users are asked to complete a series of representative tasks using a prototype. While they work, they talk out loud. This gives the researcher a clear understanding of the users' thought processes. (Also see Think aloud protocol.)

Proximity

The Gestalt principle of grouping that states that items that are placed close together tend to be perceived as belonging together.



Proximity

Psychodynamics

A science that studies an individual's interaction of various conscious and unconscious mental or emotional processes, the response to the input from the senses and preprogrammed instincts, and how the interaction influences personality, behavior, and attitudes.

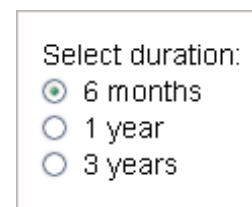
Psychographics

A social group analysis that uses demographic data to study and measure people's attitudes, values, lifestyles, and opinions.

R

Radio button

A control in the shape of a small circle, used in forms or dialog boxes, which users can click to select one out of a group of choices. Radio buttons (based on the metaphor of a car radio), unlike checkboxes, are mutually exclusive. The user automatically deselects an option by selecting another.



Proximity

Rating scales

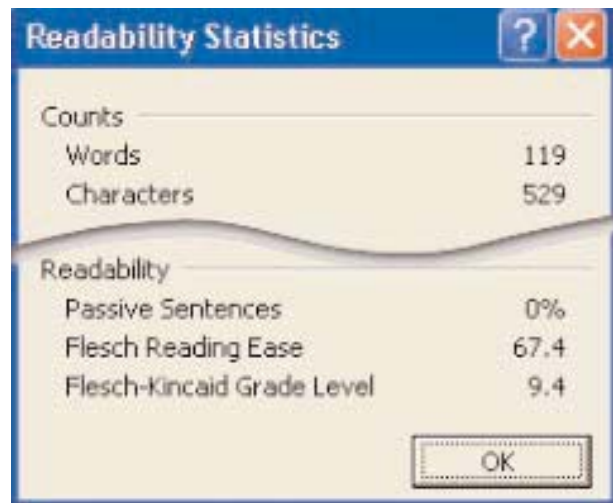
A testing tool used to capture the user's subjective impressions. For example, measuring users' satisfaction with a feature may have responses that range from "strongly agree" to "strongly disagree." (Also see Likert scale.)

Readability statistics

A Microsoft Word tool to approximate the reading ease and grade level of written text. The statistics in this report are not always 100 percent accurate. (Also see Reading grade level)

Reading Grade Level (RGL)

The level of education required by the user in order to understand a particular document. It is important to adapt your writing to the appropriate reading grade level (e.g., grade 6) of your target users. (Also see Readability statistics.)



Reading Grade Level as analyzed by Microsoft Word™ with the spelling check tool

Reflective response

Thoughtful, contemplative reaction by a person to any external or internal stimuli. (Also see Behavioral response, Visceral response.)

Relative databases (in information architecture)

A type of information architecture that is based on a rigid template scheme. Works best for highly patterned data.

Reliability

In survey methodology, will a question elicit the same response over and over again? For example, "What is your shoe size?" is generally a reliable question. "What is the date?" is not a reliable question.

Remote usability test

A usability test in which the facilitator, participant, and observers are in different locations. Remote tests prove to be a good option in case of budget and time constraints. They allow more diversity, but limit the observation of non-verbal behaviors.

Representative sampling

The process of determining and selecting a group of participants from a larger population that represents your target market. Factors that cause sample to be non-representative - Sampling error, Coverage error, Nonresponse error, and Measurement error.

Research and planning The first stage of user-centered design, characterized by an evaluation of precursor designs and the gathering of business and user objectives for a new site. Typically includes setting business goals, defining user requirements, and understanding brand objectives.

Response surface An analytical representation of multidimensional data that depicts interpolation between data points such that it is easy to visualize and spot trends.

Restricted character set A set of characters from which some alphabets and numbers are omitted in order to avoid being confused with others due to their similarity when written in uppercase, lowercase, or sound when read. The most common bad actors omitted from alpha-numeric codes are "I" which may be confused with the number 1 or lowercase "L," and "O" with the number zero.

Return on Investment (ROI) A monetary evaluation of benefits relative to the effort or expenditure invested; a measure of how much return, usually measured as profit or cost savings, results from a given use of money. In the context of usability, ROI is the monetary (or other) benefit gained as a result of an investment in good usability design.

Reverse card sort A usability testing technique, opposite to that of a card sort, where participants are given a list of items to see if they can figure out where to find them. Their success validates the self-evidence of the navigational structure of a design. (Also see Card sort.) Categories have already been made and labeled appropriately.

Rollovers An element on a page is replaced by a new element when the mouse rolls over it. E.g., in a navigation button bar, as the mouse passes over each button, the original image is replaced with a modified version of that image. Implementing rollovers usually requires scripting.



Roundtables A data gathering technique where a group of users assembles to discuss and analyze design concepts. (Also see Usability roundtables.)

S

Sans serif

A category of type where the font characters are without serifs. Serifs are the cross-lines at the end of a font character stroke. Sans serif fonts are more readable for isolated text such as labels and instructions. (Also see Serif.)



Font without serifs - Tahoma



Font with serif - Georgia

Satisficing

A theory of human problem solving that says people minimize expended effort by using shortcuts to make decisions. For instance, humans tend to select the first correct answer they encounter rather than rationally and systematically evaluating all possible answers prior to selection. This concept was first presented by Herb Simon.

Saturated color

Saturation refers to the amount of the hue present, relative to gray.



Color saturation

Scenario

1. A concrete, often narrative description of a user performing a task in a specific context. Often a use scenario describes a desired or to-bebuilt function. This contrasts with a task scenario, which describes a currently implemented function.
2. A prescribed set of conditions under which a user will perform a set of tasks to achieve an objective defined by the developer.

Scent

Cues provided in an interface to help people trace and navigate to desired information. Ambiguous cues provide false or insufficient "scent."

Schema (pl. schemata)

A cluster of human memory that is described as a pattern of connections of neurons in the brain with nodes and links that are so strong that they can be retrieved together as a single memory unit. In essence, it is a packet of information based on knowledge and experience.

Screen readers

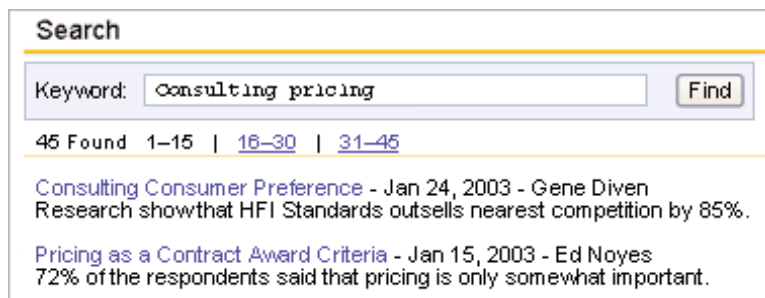
Software applications that interpret the text displayed on a computer monitor and convert it to speech or Braille for disabled users. E.g., Jaws®, pwWebSpeak.

Screener

A questionnaire, used at the outset of a usability test, containing criteria for participant selection such as user, task, and environment profiles, demographics, etc. These act as filters to ensure selection of only suitable participants for the study.

Search and results

A standard page type that allows the user to search for data based on any number of criteria (e.g., customer name, zip code) and view the search results. Usually the "search" task panel occupies one portion of the screen while the "results" occupies another.



Search

Keyword:

45 Found [1-15](#) | [16-30](#) | [31-45](#)

[Consulting Consumer Preference](#) - Jan 24, 2003 - Gene Diven
Research showthat HFI Standards outsells nearest competition by 85%.

[Pricing as a Contract Award Criteria](#) - Jan 15, 2003 - Ed Noyes
72% of the respondents said that pricing is only somewhat important.

Elements of a basic search and results page

Secondary browser windows

Windows that appear in front of main windows and give additional information or activities related to items on the main window. Typically these are used in control-less browsers.

Sequence error

A specific error type in which a user attempts to complete a component of a modal or ordered task out of sequence, resulting in a system error. Eg. A B D C.

Serif

The cross-lines or strokes at the end of a font character stroke that help distinguish letters and provide continuity for the reader's eye. Sans serif fonts do not have serifs. (Also see Sans serif)



Font with serifs - Georgia



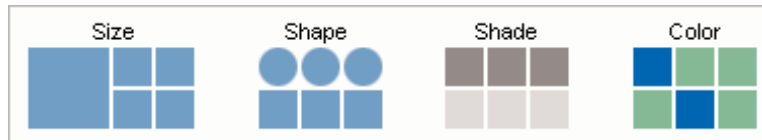
Font without serifs - Tahoma

Signal / noise ratio

The proportion of meaningful content to extraneous interference. Writing is more powerful when the signal (message) is high and the noise (verbiage) is low. Maximize the signal/noise ratio.

Similarity

The Gestalt principle of grouping that states that items with the same size, shape, color or shade tend to be perceived as belonging together. (Also see Gestalt principles, Common region, Connectedness, Proximity.)



Grouping by similarity

Single document interface

An application in Windows TM that displays and allows the user to work with only one document at a time, necessitating the user to reload another instance of the application for each subsequent document. (Also see Multiple document interface.)

Site map

A map of the Web site, displaying the navigation structure and the interrelationship between pages.



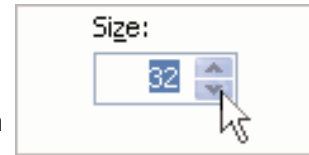
Site map of a site showing navigation and levels

Skills training

Training for professionals, that focuses on imparting knowledge through participatory activities in order to gain proficiency in a particular field. (Also see Knowledge training.)

Spin button

A control to make a single choice from a short list, with up and down arrows to increase or decrease the measure in the selection. Such a control is provided if there is a clear up or down sequence within choices (such as numbers, length).



Spin button

Split site studies

Though rarely done, it is possible to create two versions of the site. Users are randomly assigned one of two or more versions of a site to compare performance and usability differences between designs.

Stakeholder

Any individual who has vested interests in the design project and its outcome, including clients, managers, software developers, designers, marketers, distributors, store-owners, and almost everyone involved with the product.

Standards design

The process of developing a Web standard including the development of exemplar page types, general presentation rules, and guidelines for how to use the standard.

Statement of Work (SOW)

A contractual document specifying the work activities or tasks to be conducted for successful completion of a project. Used by a contractor to size, plan, and complete a project, and used by the organization that procures the services to monitor and control the project.

Storyboards

Sketches or other visuals that help depict the design concept you have planned.

Style guide

Set of rules that provide a reference for creating the look and feel of a design by clearly defining the conventions of each instance in the design. For an interface, style guides may contain rules for graphic layout grids, exact size and spacing of elements, fonts, colors, interactive behavior, text messages, and labels.

Subjective rating

A rating that is based on an individual reaction or opinion, feelings, desires or priorities, often measured on a Likert scale to allow for a quantitative measure.

Glossary of Usability Terms

Summative testing Testing done to measure the success of the design in terms of human performance and preference. (Also see Formative testing.)

Surveys An indirect user-centered analysis method for gathering information from a large number of users. Issues in survey design include: reaching a representative sample, participant self-filtering, question development and measurement bias, attracting enough responses. E.g., Marketing survey needs assessment survey, evaluation survey, diagnostic survey.

SWAG Scientific Wild Ass Guess, an estimation method.

Systems analysis Reducing a system into its simpler constituents for the purpose of better understanding of the whole system, its function, and the functions of its constituents. The constituents include personnel, hardware, and software, and the functions include both system operation and maintenance functions.

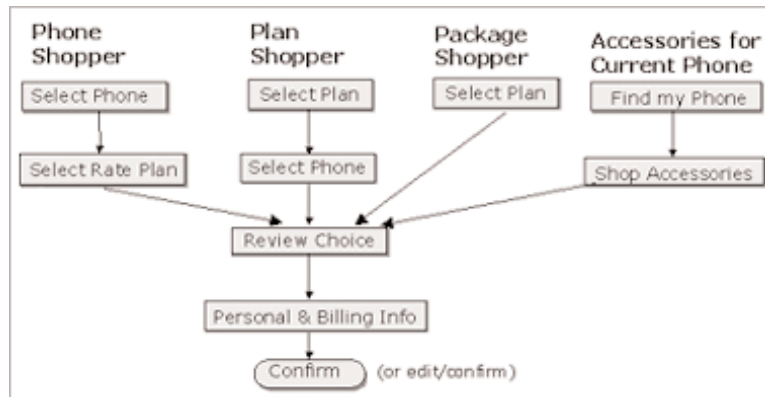
T

Task analysis The process of evaluating a task or activity to determine the criteria for successful completion. Task analysis also serves to optimize task efficiency by reflecting the users' understanding and expectations of the task.

Task depth The number of vertical levels of a hierarchical structure.

Task design Part of the conceptual design stage; refers to the design of a task flow using various formats (task lists, task flow diagrams, etc.) prior to prototyping. Task design follows a task analysis and embodies the new task flow—these flows can be tested for practicality before any formal page design has been done.

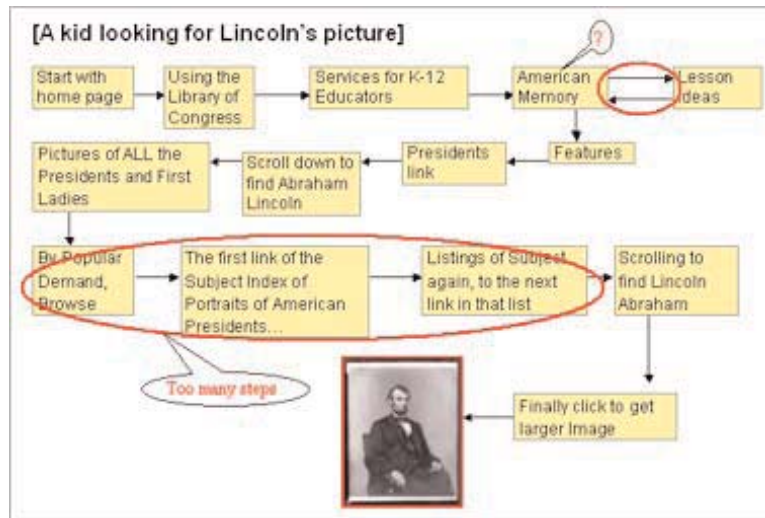
Task flow diagrams Diagrams that show the various user tasks and their inter-relationship.



Diagrams showing integration and inter-relationships of tasks

Task flow problems map

A diagram that maps out problems in the task flow of a design.



Mapping problems on a task flow

Task panels

Portions of the screen where a particular task is performed. E.g., in a search and display screen, usually the search task panel occupies one portion of the screen while the results occupies another. Task panels allow navigation across tasks using persistent elements displayed on every page.

Task profile

An overview of a given task outlining the task characteristics that impact usable design, including importance, frequency, sequence, dependency, flow, and mission criticality. (Also see Environmental profile, User profile.)

Glossary of Usability Terms

Task scenario A concrete, often narrative, description of a user interacting with an interface. Task scenarios typically describe functions that currently exist on an interface. This contrasts with a use scenario, which describes a future use or function of an interface that is under development. (Also see Use scenario.)

Task statement One representation for documenting tasks in user-centered task analysis. Task statements should include an actor, an action, and a goal or outcome. E.g., user enters address; manager runs report.

Thematic graphic A type of graphic designed for the purpose of reinforcing a theme carried throughout the site. E.g., the picture of a beach might enhance the theme of vacation.



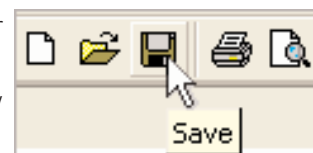
Picture of a beach enhancing the theme of a beach vacation

Think aloud protocol An interview strategy in which participants are asked to narrate their activities as they simultaneously complete a task so that the interviewer can develop a better understanding of the users' mental model, decision criteria, and expectations for a task or task flow. (Also see Protocol simulation.)

Thumbnail images On the Web, miniature, thumbnail-sized images that can be enlarged if desired (usually by clicking). Using thumbnail images instead of large graphics saves space and reduces file size.

Tight-loop projects Projects that have frequent tests throughout the system development life cycle. These projects have the greatest chance of success.

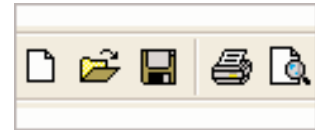
Tool tip A small context window that appears when the user lingers over a control with the mouse pointer, containing a small description of the basic functionality of the control.



Tool tip

Toolbar

A bar that contains buttons for the most commonly used commands in an application. Typically, a toolbar appears under a menu bar.



Toolbar in Microsoft™ Office

Topology Study

Study of a system showing the relationships of the system-specific parts.

Type face families

Collections of typefaces that are designed and intended to be used together. E.g., Univers - bold, condensed, extra bold, ultra thin, extended, italic, etc.



Univers typeface family

Typography

The process of selecting styles and sizes of type and arranging them in order to create an effective layout.

U

Unbounded Field

The ability of a control to allow for freeform entry versus forced selection from a set of options. (Also see Bounded field.)



Unbounded field

Glossary of Usability Terms

Unique selling proposition (USP) An exclusive message that concisely describes a product against its competition, and which the business or brand can use consistently in its advertising and promotion to achieve a cutting edge in the market.

Unmoderated usability testing Each participant interacts with a Web site from his or her location with a computer. Instructions and information about tasks to be performed are provided in a special area of the browser. Special buttons may be added to the browser to enable participants to provide additional information via small questionnaires. No moderator is involved.

Usability-centric Refers to a mindset that focuses primarily on usability rather than features.

Usability criteria Benchmarks such as formal measurements that serve as a target for the level of usability of a product. Metrics may include how fast a user can perform a task, number of errors made on a task, learning time, and subjective ratings.

Usability roundtable A meeting in which a group of end users is invited to bring specific work samples and discuss the validity of an early prototype.

Usability test Investigative methods to determine the ease of use of a product, primarily involving observation of potential users actually interacting with the product and measuring the results.

Use case A user-centered design method in which critical tasks are systematically documented with their prerequisites, the users' steps and system steps, and the task outcome. Use cases are typically described in the abstract, which makes them particularly helpful in object-oriented design. Scenarios are concrete instantiations of use-cases.

Use scenario 1. A concrete, often narrative description of a user performing a task in a specific context. Often a use scenario describes a desired or to-bebuilt function. This contrasts with a task scenario, which describes a currently implemented function.

2. A prescribed set of conditions under which a user will perform a set of tasks to achieve an objective defined by the developer.

User-centered analysis

A method of collecting data to develop an understanding of user intentions and interface use patterns. User-centered analysis provides concrete data to prioritize and drive interface design.

User-centered design (UCD)

Design methodology in which interviews and empirical tests of users needs determine the characteristics of a design or computer application.

User interface structure

A term used to refer to the basic content organization of the site and its navigation model. Different from the page level content, the user interface structure defines the containers for content and means for navigation to it.

User profile

A general description of a user group for a specific interface. Typically includes characteristics that may influence design choices, such as: demographic characteristics, education, language, computer expertise, domain experience, motivation, or expectations. (Also see Environmental Profile, Task profile.)

User satisfaction

A metric of usability that focuses on how well the user perceives the interface to work and how well it meets his/her needs.

V

Validity

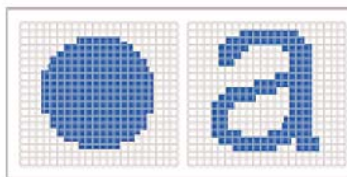
The extent to which an object does what it was designed to or the extent to which a question measures what it was intended to.

Vectored

A font or graphic image that is stored and displayed as a geometric entity with vector information (magnitude and direction) rather than points. Since they are mathematical representation of images rather than a matrix of pixels, they occupy less file space and are easy to scale. (Also see Bitmapped.)



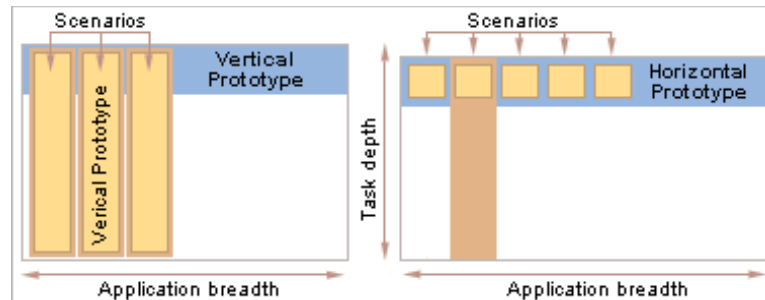
Vectored image and font



Bitmapped image and font

Vertical prototype

Prototypes that display just a few complex features of a product and almost completely implement only these features. Vertical prototype tests provide insights into users' understanding of the complexity, issues, and problems of a specific feature. (Also see horizontal prototype.)



Vertical prototype

Visceral response

Impulsive or instinctive reaction that comes from within one's mental or spiritual being. (Also see Behavioral response, Reflective response.)

Visual affordance test

A usability test to investigate users' expectations about possible interaction with an interface by just looking at the interface. This test is used to determine the success of the interface with respect to its navigation design.

Visual hierarchy

Refers to the overall page layout and its ability to lead the users' attention through the page elements. Effective visual hierarchies create an appropriate balance in composition that draws users to top levels of the hierarchy while optimizing visual access to important page level elements. (Also see Page flow.)

W

Wake-up call

A significant event, report, or situation that brings an issue to immediate attention and alerts one to possible negative repercussions if status quo continues and no steps are taken to control the current situation.

Watermark

A graphic design appearing as background. Copyright images are usually watermarked.



Watermark

Web Accessibility Initiative (WAI) World Wide Web Consortium recommendations for creating Web pages, and Web browser and authoring software that can be used by everyone on any Web capable device.

Web design standard A set of guidelines developed for a large Web development team to ensure consistency and good design across pages within and between Web sites. Effective Web standards include the design of page types and general presentation rules as well as rules of how and when to use the guidelines.

Web log A record of Web site use reported by a tool such as WebTrends. Web logs typically show most visited directories and pages, where users enter the site, what words they searched for to find the site and their path through the site.

Web-safe colors A set of 216 colors that displays correctly on 8-bit monitors for both Macintosh and Windows TM machines.

Web-safe fonts A set of fonts that displays correctly on any browser, supplied as standard by both Mac and Windows TM operating systems.

Windows Fonts	Macintosh Fonts
Arial	Arial
Tahoma, Verdana	Verdana
Times New Roman	Times
Georgia	Georgia
Courier New	Courier

Some common Web-safe fonts

Widgets

Slang term for controls and displays.

Wiki


A collaborative Web site whose content can be quickly edited with simple formatting rules by anyone who has access to it. "Wiki," developed by Ward Cunningham in the mid-1990s to provide collaborative Web discussions, means "quick" in Hawaiian. The term Wiki can also refer to the collaborative software used to create such a site.

Window thrashing

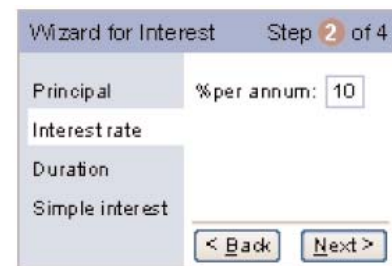
Rapid manipulation of windows caused by limited display resource, wasting users' time in activating, resizing, repositioning, or orienting to the new window.

Wizard

Instructional help in an application, site, or system development environment that guides the user through a series of question-and-answer steps to accomplish a task. Following is an example of a wizard for interest calculation.



Step 1: Enter amount



Step 2: Enter interest rate



Step 3: Enter duration



Step 4: Answer

WYSIWYG

"What You See Is What You Get." When a computer program is capable of displaying on-screen exactly as the page will print.

X

X-height

The height of the lowercase letter "x" in any given font. Larger x-heights make the font appear larger and hence increase readability.



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