Customization Features Done Correctly for the Right Reasons

46 Design Guidelines To Improve Web-based Interface and Product Customization

Jen Cardello and Jakob Nielsen

NN/g
Nielsen Norman Group

About This Free Report

H\]g˙fYdcfh˙]g˙U˙[]Zh˙Zcf˙ci˙f˙cmU˙Ui˙X]YbW˙cZI˙L˙Ybh˙i˙g]Ughg"˙H\˙Ub˙_˙mci˙˙Zcf˙mci˙f˙gi˙ddcfh˙cj˙Yf˙h\˙Y˙mYUfg"˙K˙Y˙\cdY˙h\˙]g˙]b˙Zcfa˙Uh]cb˙k˙]˙˙U]X˙mci˙f˙YZZcfhg˙hc˙]a˙dfcj˙Y˙i˙gYf˙Yl˙dYf]YbWg˙Zcf˙Yj˙Yfmcb Y"

H\Y˙fYgYUfW\˙Zcf˙h\˙]g˙fYdcfh˙k˙Ug˙XcbY˙]b˙&$%žˇ˙\ck˙Yj˙Yfž˙h\˙Y˙]bZcfa˙Uh]cb˙dfYgYbhYX˙]g˙bch˙ʌ˙gh˙U˙gbUdg\ch˙]b˙h]a˙Y"'˙ŧh]g˙U˙Wbˇa˙dYbX]i˙a˙˙cZ˙dfcZYgg]cbU˙˙UXj˙]WY˙VUgYX˙cb˙Yl˙dYf]YbW˙[U]bYX˙cj˙Yf˙a˙UbmˇYUfg"

K˙Y˙fY[˙i˙Ufˇmdi˙V˙]g\˙bYk˙˙fYgYUfW\˙fYdcfhg˙h\˙Uh˙gdUb˙U˙j˙Uf]YhmˇcZ˙k˙YV˙UbX˙I˙L˙fY˙UhYX˙hcd]Wg"˙˙H\˙YgY˙fYdcfhg˙]bW˙˙XY˙h\˙ci˙gUbXg˙cZ˙UWh]cbUV˙Yž˙]˙˙i˙ghfUhYX˙i˙gYf˙Yl˙dYf]YbW˙[i˙]XY˙]bYg˙Zcf˙WfYUh]b[˙˙UbX˙a˙dfcj˙]b[˙˙mci˙f˙k˙YVˇa˙cV]˙ˇ˙UbX˙]bhfUbYhˇg]hYg"˙K˙Y˙gY˙Y˙˙ci˙f˙bYk˙˙fYdcfhg˙hc˙˙Zi b˙XY˙]bXYdYbXYbhˇ˙i˙bV]UgYX˙i˙gUV]˙i˙gUV]˙]hmˇ]˙h]hifYgYUfW\˙˙[fUb˙ih]g˙j˙]bj˙˙Yghcfgž˙[cj˙Yfba˙Ybh˙]b˙V][\˙ci˙f˙fYdcfhg˙dU[˙Y˙Uh˙

[\Ihdg.#k˙k˙k˙"bb[˙fci˙d"Wca˙#fYdcfhg˙hc˙gYY˙U˙Wca˙d˙YhY˙˙]gh˙cZ˙h\˙YgY˙fYdcfhg"

HOW TO SHARE

8c˙bch˙]b˙_˙]X]fYW˙h\ˇm˙hc˙h\˙Y˙D8:˙˙Z]Y˙fˇh\˙Y˙\cghYX˙UXXfYgg˙Wci˙X˙˙Y˙WUb˙[˙YŁ"˙˧bghYUXžˇk˙Y˙YbWˇci˙fU[Y˙mci˙˙hc˙X]ghf]Vi˙hY˙h\˙Y˙Zc˙˙ck˙]b_˙˙hc˙h\˙]g˙fYdcfhˇaˇdU[˙Y˙cb˙ci˙f˙k˙YVg]hY˙hc˙U˙ck˙˙dYcd˙Y˙hc˙XYW]XY˙k\YhˇYf˙hc˙Xck˙b˙cUX˙]h˙h\˙Ya˙gY˙j˙Yg.

[\Ihdg.#k˙k˙k˙"bb[˙fci˙d"Wca˙#fYdcfh#Vghca˙]nUh]cb!ZYUh˙fYg#

Copyright Notice

Contents

Executive Summary

Web-based customization is not new. As far back as the mid-1990s, people have touted customization as both the Web's destiny and the panacea to all business ills. After filtering out the hype, it's clear that Web-based customization can, in fact, be utilized to benefit both businesses and users…if implemented properly.

Customization's usefulness is obvious for many applications. Still, there are countless tales of companies investing heavily in customization only to find that users rarely—if ever—customize. There are also numerous studies that tout users' desire for customization, but (as we know) what users say is often at odds with what they actually do.

Ultimately, for customization to succeed, you must have a business need for it and identify realistic hard and soft benefits to offset the expense of implementing it correctly.

CUSTOMIZATION VS. PERSONALIZATION

Although not commonly used, we could adopt the term "individualization" to refer to cases in which the user experience is adapted to each individual user's needs. In the early days of computing, everybody got the same thing. Similarly, in the Web's early days, all pages always looked the same, no matter who was visiting.

Today, designs are often adapted to individual users, so that different people see different screens both in applications and on websites. There are two main ways to individualize the user experience, depending on who initiates the adaptation:

- **Customization** happens when the user tells the computer what he or she prefers to see. Examples include:
    - Changing a news site to display the user's hometown weather forecast upon future visits to the homepage.
    - Changing an automobile vendor's site to display a particular car model with specific color and feature options, along with the customized car's list price. Most auto sites now feature such configurators.
- **Personalization** happens when the computer modifies its behavior to suit its predictions about the current user's interests. Examples include:
    - An intranet portal employs role-based personalization to show management-related features only to users who are registered as managers in the HR database.
    - An e-commerce site displays a list of the user's last five orders to make reordering the same products easy.

This report doesn't cover personalization. Instead, it focuses on two types of customization:

1. **Interface customization**: Functionality that lets users customize their online experience by adapting the user interface to suit their preferences.
2. **Product customization**: Functionality, such as a configurator, that facilitates customization of offline products, including custom-manufactured products.

Customization is not limited to websites. For example, the prevalence of "app stores" and ringtone downloads attests to the attraction of customization for both advanced and simple mobile phones. Even so, we limited our current research to testing customization on the Web.

USER RESEARCH

To assess the usability of customization functionality on the Web, we conducted a usability study with 24 users interacting with 7 sites that incorporate customization: 3 websites that let users customize their online experience (interface customization) and 4 websites that let users customize an offline product (product customization).

Interface Customization Sites

- iGoogle
- My Yahoo!
- Pageflakes

Product Customization Sites

- Custom Ink (custom t-shirts and other wearables)
- Action Envelope (custom envelopes)
- [me] & goji (custom cereal)
- Tiny Prints (custom invitations and announcements)

On each site, users were asked to perform typical customization tasks, such as:

- Add a to-do list to your page
- Take a gadget off the page
- Add a feature that posts daily pictures of cats
- Assume that your business is moving and you need to print 500 announcements on a budget of $600

BUSINESS BENEFITS OF CUSTOMIZATION

When deciding whether to add customization features, it's important to first define your business objectives and then determine how customization might help you meet them. Following are some business benefits of Web-based customization.

Increased Traffic and Loyalty

In the case of iGoogle and My Yahoo!, customization is a value-add to an existing business model. Ideally, offering customization increases the number of users who will visit the site and choose it as their start page, thereby increasing page impressions and ad-based revenues.

In 2008, for example, iGoogle reportedly accounted for 20% of visits to Google's home page. As well, users who take the time to create their own custom Google or Yahoo! homepages are more likely to engage with site offerings such as Web-based e-mail and search.

Reduce Operating Costs

For businesses such as Action Envelope, there's an operational incentive to not only place catalogs online, but also to provide customization functionality so that users can configure and place their orders online as well. Without the Web, such companies would have to print and mail catalogs and maintain a large sales staff to reach the levels they can with Web-based customization.

Cast a Wider Net

Traditionally, geography limited businesses that required customer interaction to determine the product. Today, that's not the case. Tiny Prints, for example, lets

users create custom announcements and invitations online. Before the Web, customers typically achieved this only by visiting the printers, where they'd select paper, fonts, and ink colors, and then examine proofs, make corrections, and so on. The same was true with custom cereals: you could create your own at a natural foods market, perhaps, but not everyone lived (or lives) near such stores. The ability to offer customization online makes such individualized products available to the masses.

USABILITY CHALLENGES ON CUSTOMIZATION SITES

Our study looked at sites with and without customization to see whether there are any marked usability differences. We also separated interface customization sites from those with product customization. Interface customization task success matched that on non-customization websites, with an average completion rate of 83%. However, product customization sites averaged only 66% task completion—a significant gap.

In our post-task surveys, users generally reported feeling more lost and less in control on the customization websites, as the following (averaged) ratings indicate:

	Non-Customization Sites	Customization Sites
Feeling oriented	60%	53%
Feeling in control	66%	60%

Having users feel less in control on customization sites is particularly unfortunate, given that the goal of customization is to cater more precisely to each user's needs. Current customization user experiences have a tendency to get in the way, rather than empower users and make them feel appreciated.

The complexities of customization impact both task success and perception of the site.

For interface customization, the main problems relate to discoverability, findability, and comprehension—that is, getting to the customization in the first place, and then finding and understanding the available options. To reward first-time users with an early success experience, sites should better explain features and provide fast-tracked workflows. In our study, for example, iGoogle's promise to create a simplified personal homepage "in under 30 seconds" was successful and encouraged users to start experimenting with the service.

For product customization, poor findability caused even more problems: it was responsible for 45% of the many task failures on these sites. Overly complex workflows also caused many problems. Users frequently missed steps or misunderstood what was required to successfully design their own products. For example, one site asked users to specify font sizes in units that made no sense to the average person, resulting in a frustrating trial-and-error with different numbers. This particular problem was exacerbated by the unfortunate choice of a default size that was too small for almost all users.

THE IMPORTANCE OF GOOD DEFAULTS

Despite its benefits, many users don't avail themselves of customization features. Users exhibit a strong bias toward simply getting things done on a website, rather than spending time fiddling with preference settings.

It's too easy to resolve a design debate by simply offering all the possible options as preference settings and letting users decide the interface for themselves. Often, it's better for users if the design team decides on a single good, coherent user experience. Customization options should be reserved for those features that offer substantial user benefits, thereby compensating users for the time spent on customizing the UI rather than on accomplishing their tasks.

In any case, some users won't customize no matter how easy and rewarding you make the customization interface. It's therefore imperative to retain a good default design for non-customizing users.

CUSTOMIZATION: EFFECTIVE WHEN IMPLEMENTED CORRECTLY

None of the sites we studied offered gratuitous customization; each site benefited from its customization and offered great benefits to users who took advantage of it. In observing users interacting with these sites, we witnessed both best and poor practices, which we've distilled into 46 guidelines for customization design. These guidelines outline the design principles that you should follow to ensure that your customization efforts provide an effective, efficient, and satisfactory experience for your users.

Customization is complicated, both technologically and design-wise. To get a user from blank slate to fully customized interface or product takes exceptional design skill. It also requires cooperation among multiple groups to assemble, organize, and architect a usable customization path. Customization isn't something you can throw together in a couple weeks, and businesses who approach it in that manner are risking their reputation and revenues.

Research Overview

INTRODUCTION

Web-based customization allows users to manipulate their online experience and create offline products that meet their specific needs.

In this report, we offer guidelines for designing online customization features for both interface and product customization. We also offer examples and discuss the reasoning behind each of our recommendations, which are based on user observation.

PURPOSE OF STUDY

We conducted this study to provide usability guidance to those considering the addition of customization functionality or questioning the usability of existing customization efforts.

GENERAL PROCEDURE

A total of 24 users participated in this study, carrying out tasks as requested by the facilitator. For each participant, we included tasks on both sites with and without customization. For each session, the facilitator sat next to the user to observe and take notes. She also asked them to think aloud while they worked.

Besides the seven customization websites, we tested nineteen "regular" websites with tasks that did not involve customization (even if the site might have included a customization feature somewhere). These sites are referred to as "non-customization" sites in the following.

The non-customization sites were: Amazon.com, Apple, Citizens Bank, Costco, Debate Graph, *Epicurious* Magazine, Etsy, Flickr, Food Network, Got Milk? (California Milk Processor Board campaign site), The Health Connector, Lighting Universe, L.L.Bean, Massachusetts State Government, Mayo Clinic, San Diego Zoo, Sears, U.S. Food and Drug Administration, and the *Wall St. Journal*.

Please see the Methodology *section for more detailed information on our methodology and testing procedures.*

WEBSITES STUDIED

INTERFACE CUSTOMIZATION	
iGoogle www.google.com/ig	iGoogle is a customizable homepage that users can configure with "gadgets" and feeds. It was first launched in May 2005 and is currently available in 42 languages and 73 domains. There are thousands of possible gadgets to choose from. Top gadgets include Weather (14.9M users), Date & Time (12.4M users), CNN.com (10.8M users), How to of the Day (10.6M users) and Movies (7.9M users)
My Yahoo! my.yahoo.com	My Yahoo! is Yahoo!'s free, customized start page that allows users to select and configure information of personal interest. Over 40 million My Yahoo! accounts have been created.
Pageflakes www.Pageflakes.com	Launched in 2006, Pageflakes is a customized home page service offering customized widgets (aka "Flakes"), an RSS reader and group sharing capabilities. The site serves approximately 100,000 unique visitors each month.

PRODUCT CUSTOMIZATION	
Action Envelope www.actionenvelope.com	Founded in 1976, the company sells envelopes (blank and custom printed) for all purposes personal and professional. The site allows users to select envelopes, design online and upload custom artwork.
Custom Ink www.customink.com	Founded in 2000, Custom Ink sells custom printed t-shirts and other printable products (e.g., hats). The site allows users to create designs via "The Lab" or upload artwork. In 2008, they sold 6 million t-shirts.
[me] & goji www.meandgoji.com	Founded in 2008, the company sells custom cereals that users configure via the website.

Tiny Prints www.tinyprints.com	Founded in 2004, the company sells customizable printed announcements and invitations.

Task Success, Difficulty and User Ratings

In this study, we observed users conducting tasks across a broad spectrum of sites including sites with and without customization. The most interesting findings illustrate a difference not just between non-customization and customization sites, but also a difference between Interface Customization and Product Customization.

LOWER TASK SUCCESS ON PRODUCT CUSTOMIZATION WEBSITES

For each task, we tracked whether or not a user successfully completed a task and to what degree, using this scoring scale:

- 0% (Failure)
- 25% (Partial)
- 50% (Partial)
- 75% (Partial)
- 100% (Success)

The average success scores for Interface Customization (i.e., iGoogle, My Yahoo! And Pageflakes) is equal to that of non-customizable sites. However, product customization sites (i.e., Action Envelope, Custom Ink, [me] & goji and Tiny Prints) did not score as well with only a 66% completion rate — 17% lower than the other types of sites. A low success rate indicates usability issues and can lead to significant revenue loss.

Average Task Success

	Non-Customization	Interface Customization	Product Customization
	83%	83%	66%
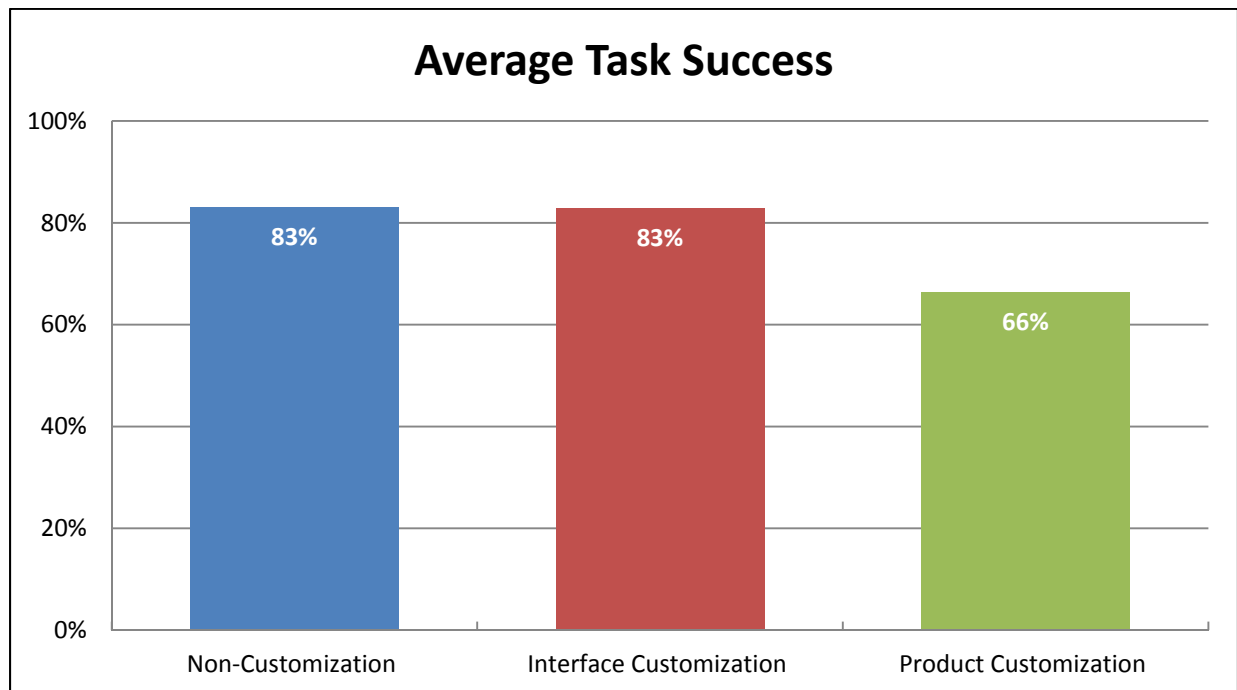
On average, users had less task success on product customization websites (66%) than on non-customization sites (83%) and customized websites (83%).

IT IS DIFFICULT TO ADD CONTENT AND TOOLS ON INTERFACE CUSTOMIZATION SITES

Interface Customization sites such as iGoogle and My Yahoo! performed better than Product Customization sites, but users still encountered issues. On these sites, we asked users to set up a custom homepage, add a to-do list and adjust the layout of the page. Users were more successful setting up their page and adjusting page layout than adding content/tools. The ability to add content and tools is critical to the perceived benefit of the service. If users fail to add content and tools, they will go elsewhere to fulfill their needs.

Interface Customization Task Success

Initial set-up	88%
Add to-do list	65%
Adjust page layout	96%
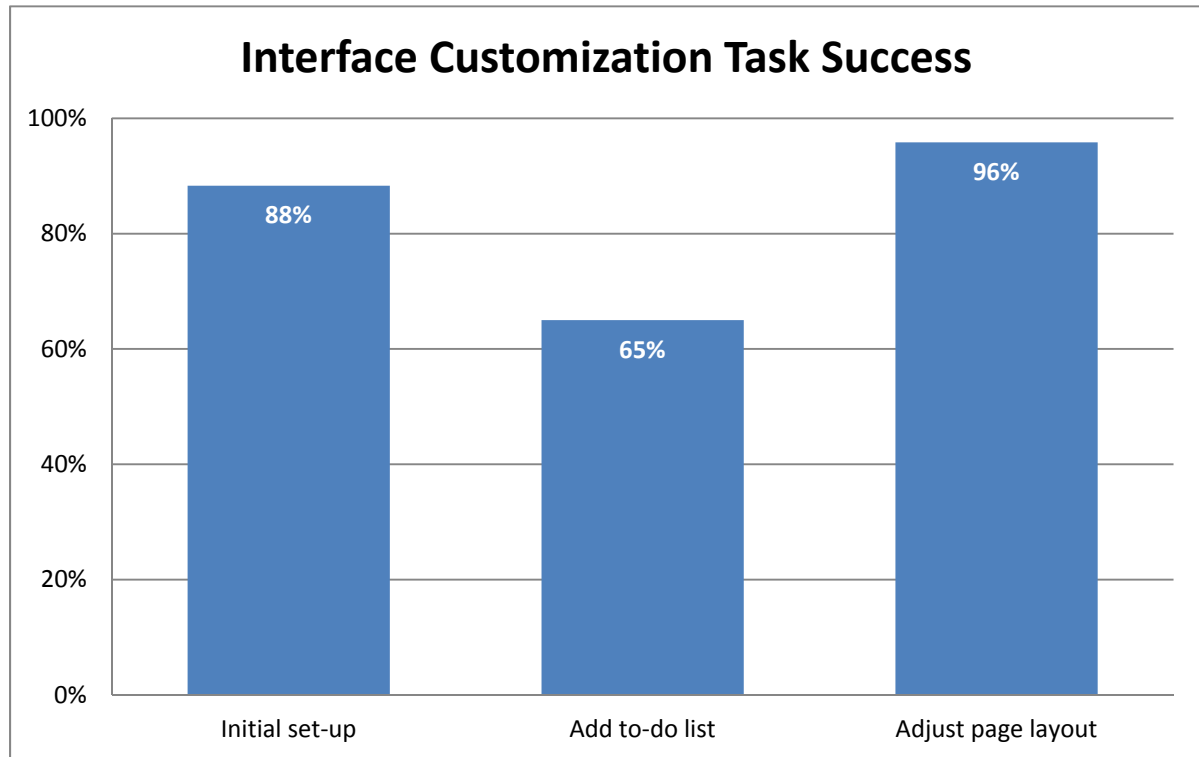
Users experienced more task failure when asked to add a to-do list to their custom homepage. Users achieved higher task success when setting up their custom page for the first time and making layout adjustments.

LOW FINDABILITY AND POOR PAGE DESIGN PLAGUE CUSTOMIZATION WEBSITES

It's important to understand why users fail to complete tasks. In this study we tracked task failure causes and categorized them as follows:

- Search
- Findability: Information architecture, Category names, Navigation, Links
- Page design: Readability, Layout, Graphics, Scrolling
- Information: Content, Product information, Corporate information, Prices
- Task Support: Workflow, Privacy, Forms, Comparison, Inflexibility
- Fancy design: Multimedia, Back button, PDF/printing, New window, sound

On Interface Customization websites, the most task failures were caused by poor page design and findability. Poor findability is also indicated by the previous chart that shows adding content as a weak task on these sites. The inability for users to find what they are looking for is a significant issue and it shows up in both the difficulty scores as well as the failure causes.

On product customization websites, the most significant task failure causes are limited findability and poor task support. Findability issues include the inability to find the right product to customize, difficulty navigating the task flow and interpreting labels.

Causes of Task Failure

	Search	Findability	Page Design	Information	Task Support	Fancy Design
No Customization	18%	39%	25%	4%	4%	11%
Interface Customization	0%	38%	46%	15%	0%	0%
Product Customization	9%	45%	0%	18%	27%	0%
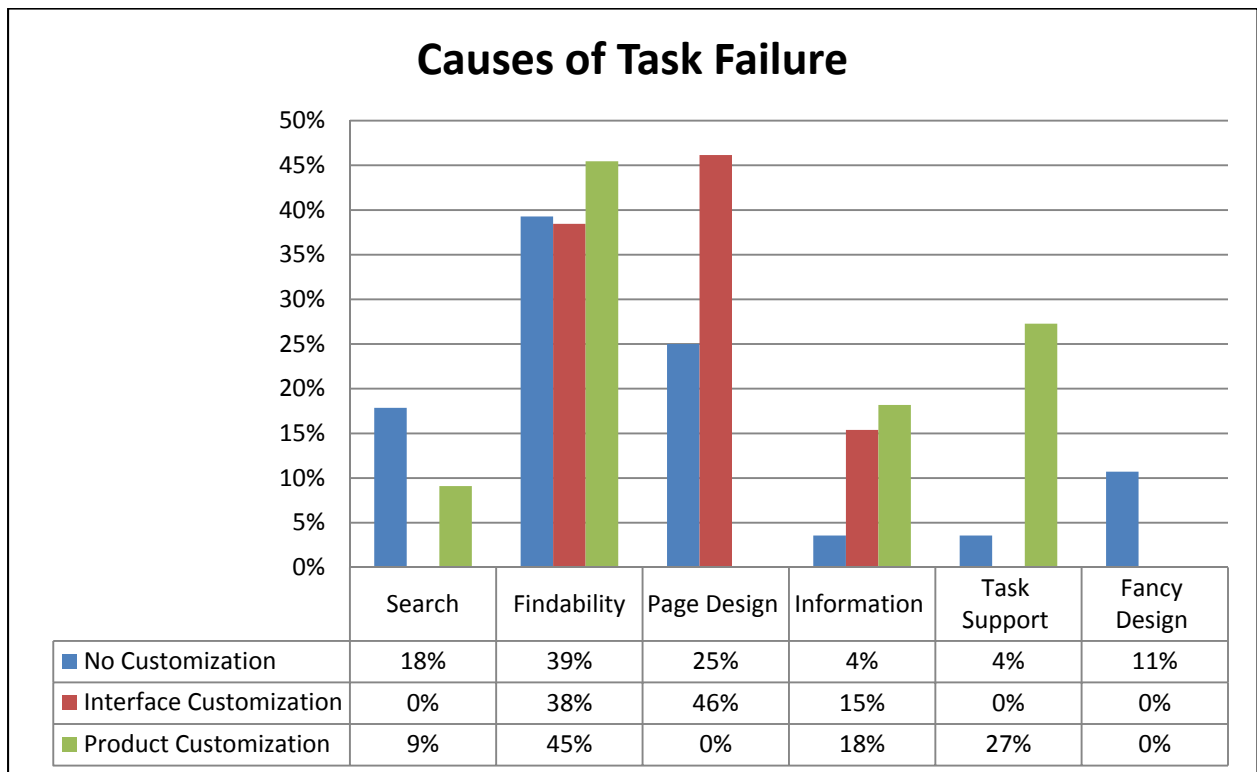
A significant portion of task failures on both types of customization sites were due to findability, page design and task support issues. Over 72% of the issues on Product Customization sites were due to findability and task support inadequacies. 84% of issues on Interface Customization websites were due to poor findability and page design.

USERS EXPERIENCE HIGHER LEVELS OF DIFFICULTY ON PRODUCT CUSTOMIZATION SITES

While overall success is a good indicator of a site's effectiveness, it doesn't illustrate the complete story. Users may ultimately complete a task, but experience difficulty doing so. To measure the level of difficulty in achieving task success, we assigned the following designations for each user's task completion:

- **No difficulty**

- **Minor difficulty**: Person spends an extra few seconds pondering the category names, but completes most of the task without any other issues. For example, the person clicks the wrong link, goes back right away and fixes it, but completes most of the task without any other issues. Interface creates a few small problems, but the user did not seem bothered by them.

- **Moderate difficulty**: Person makes several mistakes (could be several minor mistakes) while completing the task, but completes the task within a reasonable amount of time without coming close to quitting. Comments on the annoyance.

- **Major difficulty**: One click sends person down the wrong path and it takes him a long time to recover. Struggles with something for a long time. Seems frustrated. Comments on quitting.

From this data, we determined that the percentage of moderate and major difficulty is significantly higher (51%) on Product Customization websites than on non-customization sites (19%) and Interface Customization websites such as iGoogle (12%). Users configuring a custom product experienced more set-backs before completing the tasks. The good news is that they recovered from these set-backs and completed the tasks. The bad news is that frustrating experiences can reduce return visits and increase negative word-of-mouth.

Level of Difficulty Completing Tasks

	None	Minor	Moderate	Major
■ No Customization	53%	28%	10%	9%
■ Interface Customization	58%	31%	8%	4%
■ Product Customization	23%	26%	35%	16%
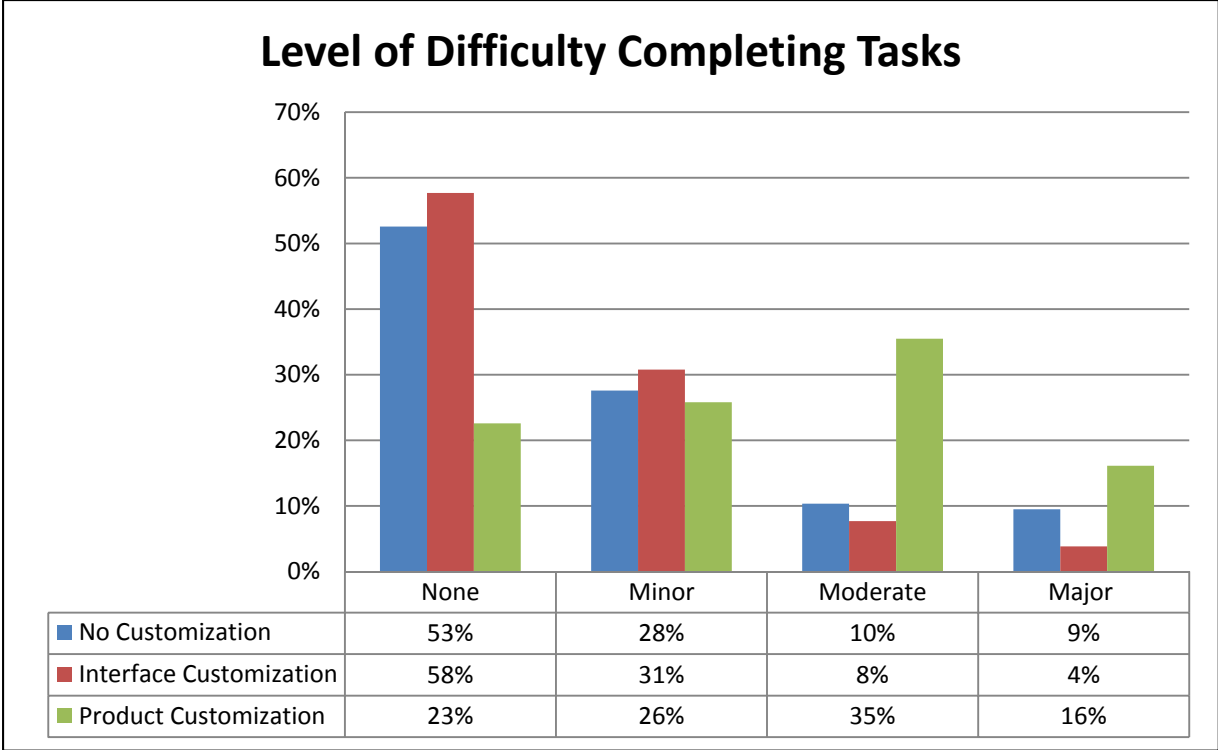
51% of task completions involved moderate to major difficulty compared with only 12% on the Interface Customization websites.

USERS HAVE TROUBLE ADDING CONTENT AND MOVING PAGE ELEMENTS ON CUSTOM HOMEPAGES

Adding content to a custom homepage not only received the lowest task completion score (65%) for Interface Customization websites (e.g., My Yahoo!), but also caused users the most pain when they did accomplish the task. Of the users who completed the task, 25% experienced moderate difficulty along the way. Poor organization of content/tools and unintuitive naming contributed to this difficulty.

Level of Difficulty Completing Interface Customization Tasks

	No difficulty	Minor Difficulty	Moderate Difficulty	Major Difficulty
Initial set-up	62%	23%	8%	8%
Add to-do list	63%	13%	25%	0%
Adjust page layout	42%	50%	8%	0%
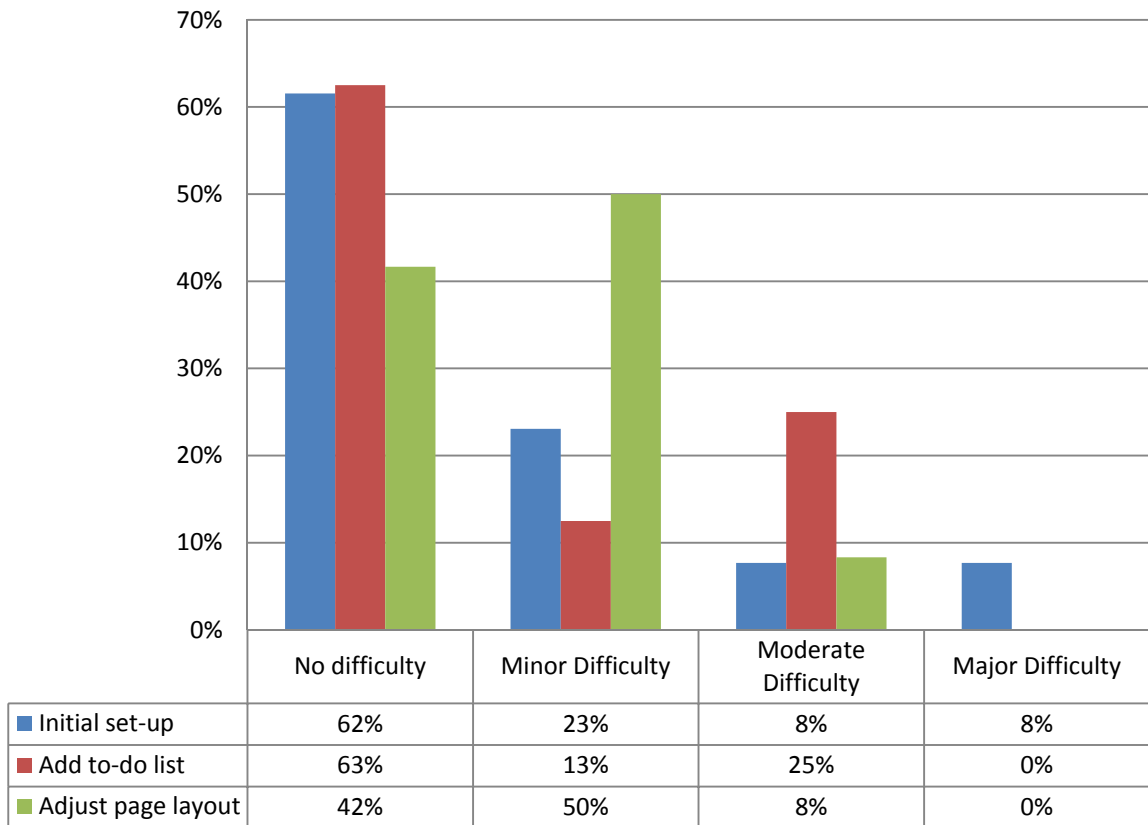
On Interface Customization websites, users experienced the most trouble adding a feature to their custom homepage; 25% completed this task with moderate difficulty.

USERS FEEL MORE LOST AND OUT OF CONTROL ON SITES FEATURING CUSTOMIZATION

After using each website, we asked users to rate their experience. For this study, we asked the following questions:

- **Satisfaction**: Do you feel satisfied with this website?
- **Orientation**: While using the website, did you feel lost or confused?
- **Control**: While using the website, did you feel like you were in control and command of it?

None of the 25 sites in our study scored very highly. The non-customization sites averaged a solid C, while both types of customization sites scored a D+ average.

Customization Websites (i.e., iGoogle, My Yahoo!, Pageflakes)

Users felt more lost (by 9%) and more out of control (by 8%) than on non-customization sites. They likely expected these sites to be easier to use given their mainstream appeal.

Product Customization (i.e., Action Envelope, Custom Ink, [me] & goji, Tiny Prints)

Users felt more lost (by 6%) and more out of control (by 4%) on these websites versus the non-customization sites. This data corroborates the task success and difficulty results which point to serious issues on Product Customization websites.

User Survey Results

	Satisfaction	Sense of orientation	Sense of control
No Customization	63%	60%	66%
Interface Customization	64%	51%	58%
Product Customization	58%	54%	62%
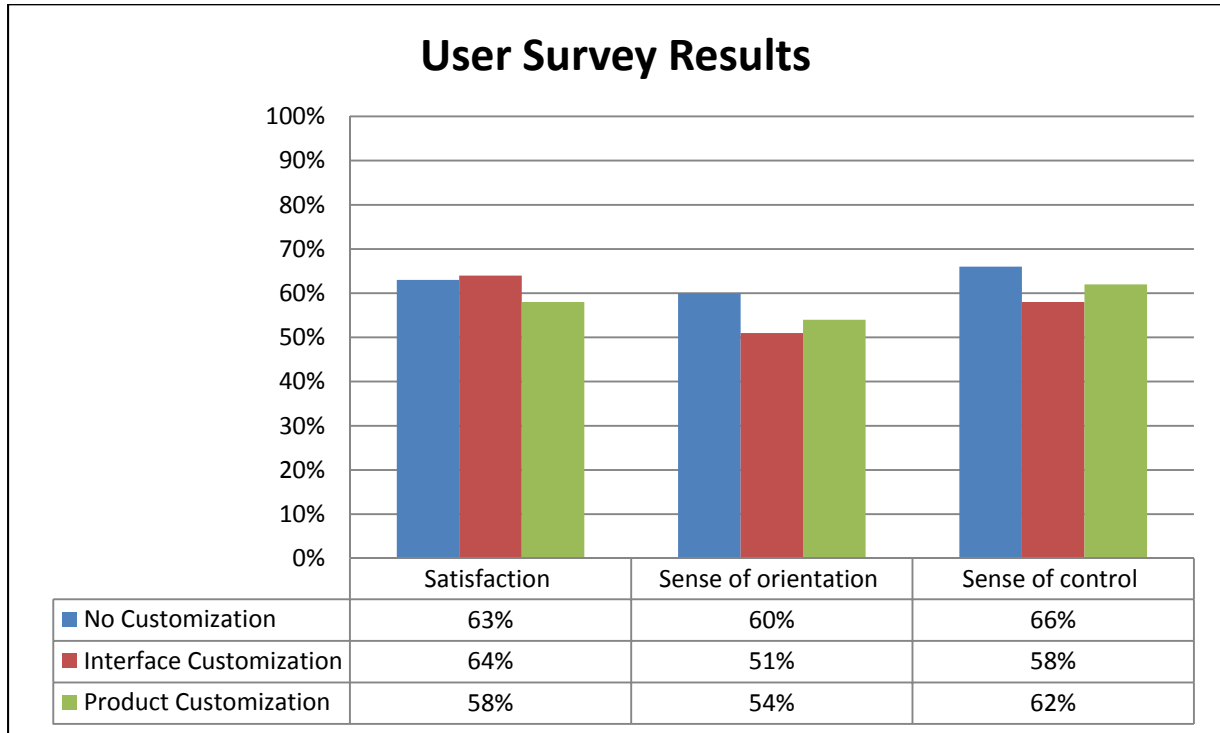
Interface Customization sites scored better than non-customization sites in satisfaction (by 1% point), but scored 9% lower for orientation and 8% lower for sense of control. Product customization sites scored lower than non-customization sites in satisfaction (5% lower), sense of orientation (6% lower) and sense of control (4% lower).

Interface Customization

Interface Customization allows users to configure an entire interface or select pages so that they meet their needs. It can be enlisted to:

- Encourage reliance on and loyalty to a web property
- Increase efficiency and effectiveness by limiting the scope of the site to only those things that are applicable to a specific user

Custom homepage offerings are an example of Interface Customization (i.e., iGoogle, My Yahoo!, Pageflakes). Also, many organizations employ customizable start pages (i.e., intranet) and customizable account summaries (i.e., banks) to meet the needs of their users. Much of the best and worst of Interface Customization is illustrated by the personalized homepage offerings; therefore, we included several in our testing to determine guidelines that could be applied to any Interface Customization effort.

LEVEL OF CUSTOMIZATION AND NUMBER OF CHOICES IMPACT USABILITY

The usefulness and usability of Interface Customization is directly related to the quantity of customization elements and the degree of customization.

Number of Custom Elements
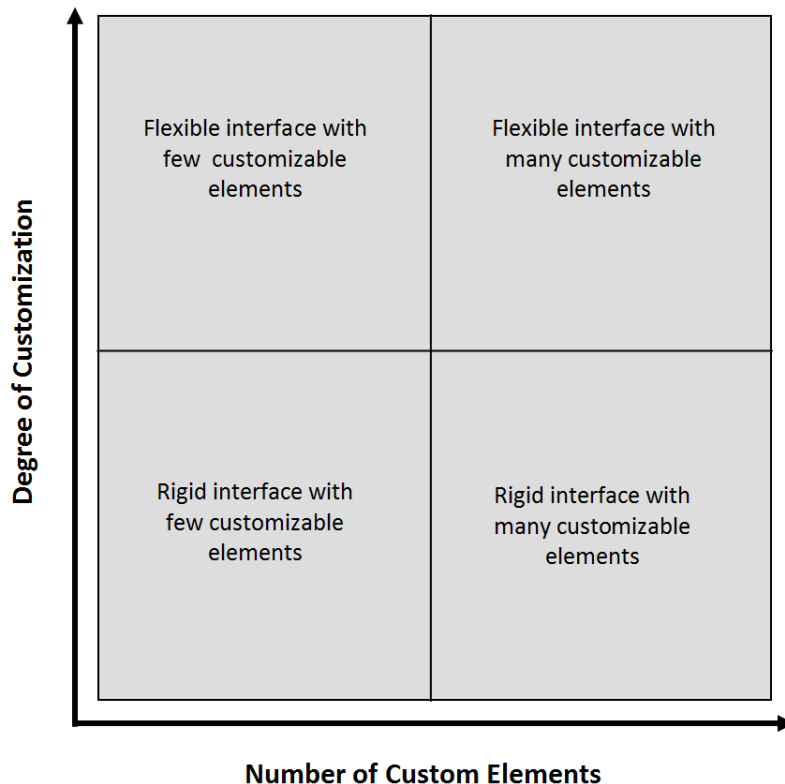
Of course, more choices and greater interface flexibility make for a more complex customization process.

Example of a simple customization offering:

- Three possible background colors

- Ability to order page elements

- Set page default to collapsed or expanded categories

Example of a complex customization offering:

- Hundreds of page "themes"

- Thousands of content features

- Tools that link directly to user accounts (e.g., email, bookmarks, photos, bank accounts, etc.)

- Ability to specify a preferred location, say, for weather forecasts

- Ability to create and share custom page elements

- WYSIWIG movable page elements

The perceived value of the finished customized product needs to be greater than the effort required to customize. You must not only "sell" the user on the idea of customizing, but promise ease of customization and make good on that promise. In our study, we heard the following comments from frustrated users:

- "I don't see the point."

- "This is not helpful and I'm getting frustrated."

- "There is a lot going on and I could not digest hardly any of it."

Unusable customization decreases productivity, site loyalty and perceived value of all of your offerings, not just those that provide customization. Therefore, it's important to carefully consider the scope of the effort as well as its design and integration with the rest of your offering.

The BBC offers many customization options. Here, the user has clicked the "Edit" button on the weather gadget, which reveals the ability to change the city for which the weather forecast is shown on the homepage and to specify whether the user prefers to see temperatures in Celsius or Fahrenheit.

DESIGNING FOR USER INTENTIONS

To determine customization design, you must thoroughly understand users' intentions for visiting the site. For an offering such as iGoogle, much of the content is geared toward entertainment and aggregation and the customization process is optimized for casual browsing. Users who partake in customization "for fun" are

pleased when content and features are suggested and they are more willing to engage in exploratory customization without regard to the effort or the effects of the customization; they happily add, adjust and otherwise manipulate their customized environment.

For businesses and intranets, this would be an inappropriate experience to emulate. For these business and organizations the process of customization should be goal-focused and deliver an experience that:

- Clearly illustrates scope of options

- Organizes elements based on tasks and job roles

- Offers a useful customized interface with very little time investment

To study this effectively, we first asked users to set up a custom homepage without any guidelines. Then we asked users to add specific features to their custom homepages. The task success rate dropped from 88% for the unguided task to 65% when we asked users to add a specific item to their page. Users became frustrated and usability flaws came to light:

- "I don't know why I didn't see that... maybe they're the most popular ones, so they are right there and button to scroll through them, so I thought that was all that was available."

- "The way the content was named — didn't know if a to-do list was a tab or some content."

- "I felt like Yahoo was more directing me to what they wanted as opposed to what I wanted."

BIGGEST ISSUES WITH INTERFACE CUSTOMIZATION

Users experienced the most difficulty with a task that involved finding a tool to meet a specific need:

Task: Add a to-do list feature to your page.

Users were successful with this task only 65% of the time and users who were successful experienced at least some difficulty completing the task. The leading causes of task failure and frustration included:

- **Poorly placed search**: "Suggested content" was prioritized over search thereby discouraging users to search instead of browse through the displayed options.

- **Misunderstanding regarding highlighted features**: Users mistook highlighted features as either all that was available or categories of features.

- **Clutter**: Users were overwhelmed by the amount of links on pages and could not navigate through to find useful features.

In their defense, most custom homepage sites were designed for more leisurely use. However, seeing how these designs do not adequately serve users seeking specific tools and features can help you design a better goal-oriented customization offering.

DESIGN GUIDELINES

On the following pages, we have described and illustrated 22 guidelines to help organizations design more useful and usable customized websites.

1. Explicitly invite users to customize their experience and avoid using brand names for links.

Customization will be under-utilized if users do not know it exists. Therefore, it is important to directly invite users to customize the environment and not expect them to seek out customization functionality. It is especially important not to use brand names only to list or promote the customized offering.

On the Google search page, a link to *iGoogle* is present in the upper right hand corner of the page. However, users who do not know what iGoogle is would not know to click on that link to create a custom homepage. On the Yahoo! Homepage, there is a link to *My Yahoo!*, but no explanation of what it is. It's acceptable to assign a brand name for the offering, but using only that name on the standard offering homepage without any explanation or invitation to customize will result in lower usage of the feature.

When asked to create a custom homepage, users mistakenly clicked on the *Make Yahoo! Your Homepage* link in the upper left-hand corner which has nothing to do with the custom homepage offering; instead, it resets your browser homepage setting.
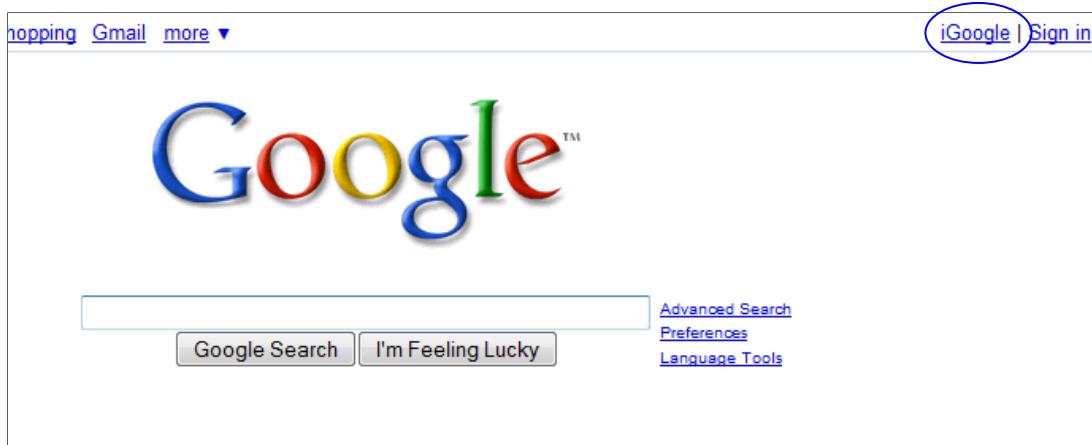
The term iGoogle means nothing to users who have not yet customized.

Yahoo includes a link to *My Yahoo!* on its homepage, but does not explicitly invite users to create their own custom homepage.

2. Direct users to the customization path.

Users must first know customization is available and then it must be clear how to start the process. To make the customization path apparent it must be well-designed, intuitively named and placed where it cannot be missed.

In our study, several users spent a good amount of time trying to figure out how to create a My Yahoo! page. The brightly colored and smartly worded invitation was overlooked repeatedly. After several minutes looking for the customization path, one user commented, "There was so much that I didn't even see the setting at the top of the page."

We call this "banner blindness"; the condition where users actively ignore page elements they perceive as advertisements. A better approach is that taken by iGoogle where the default page includes the customization settings; the user does not have to seek out the customization process, it finds her.
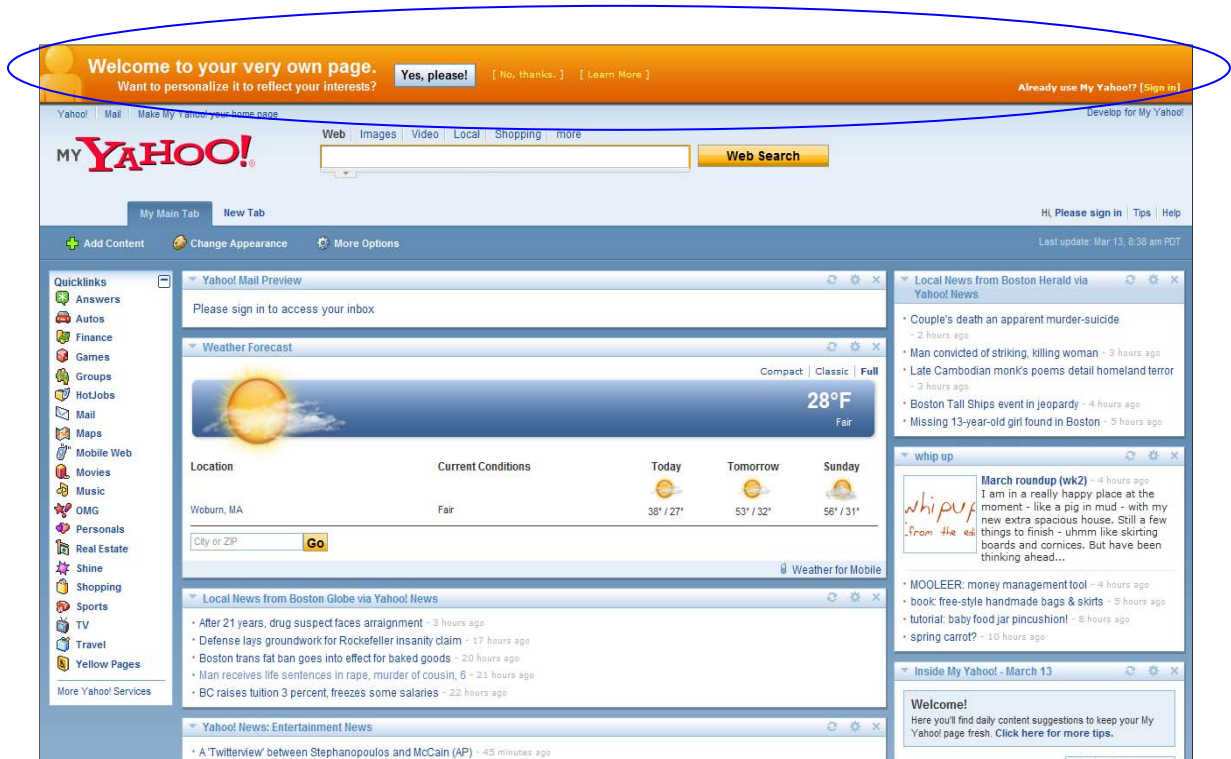
The customization invitation at the top of the page was mistaken for a banner ad and subsequently ignored by some users.
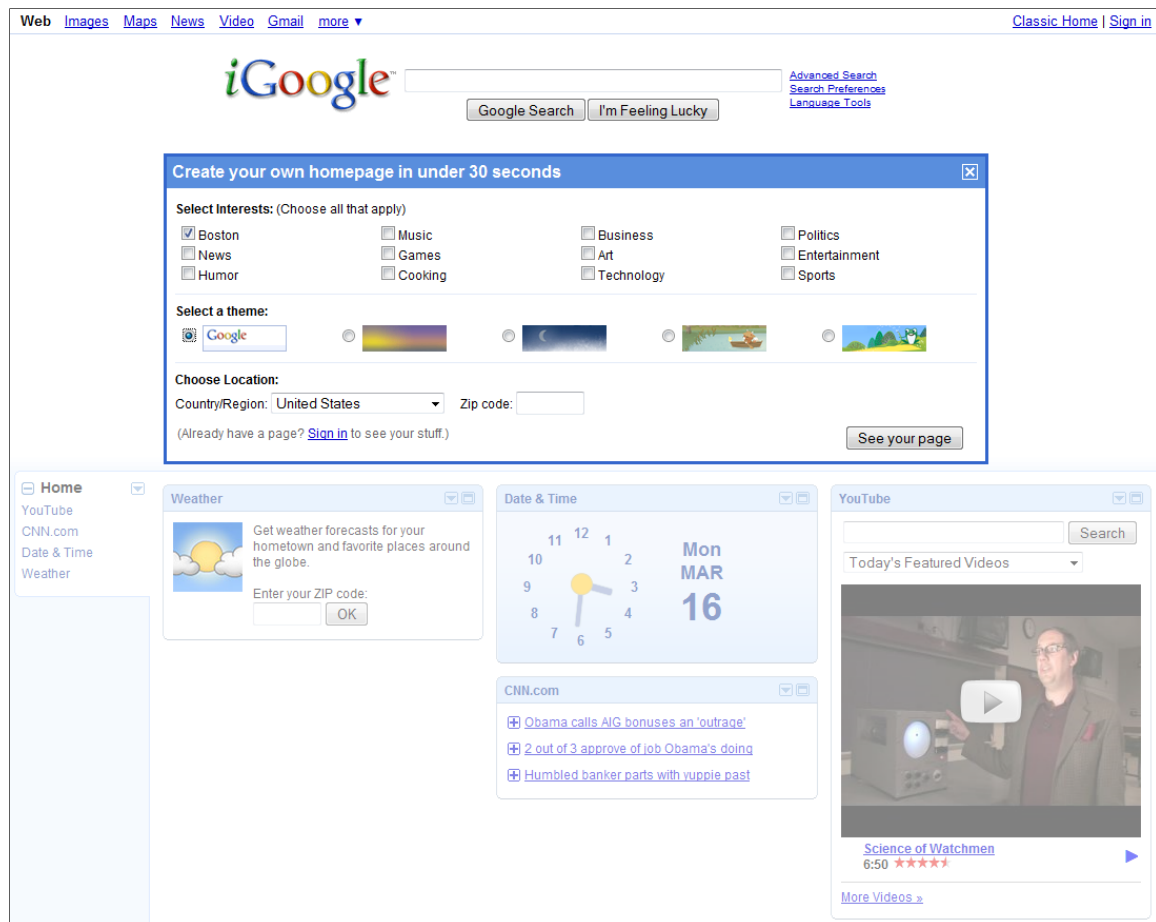
When the iGoogle page loads for the first time, it defaults to display the basic customization options so that users don't overlook the functionality.

3. Provide a first-time "quick set-up" to familiarize users with the concept and illustrate possibilities.

Users will be more likely to take advantage and optimize their use of customization features if the initial time commitment is low and they realize they can make additional adjustments afterwards at their discretion. iGoogle presents users with the basic customization offering — interests, theme and location — and delivers an initial custom homepage that the user can amend and adjust. Additionally, Google quantifies the commitment: "Create your own homepage in under 30 seconds." Delivering a taste of customization quickly excites users and encourages them to explore other ways they can customize their experience.

Also note that iGoogle employs a small amount of personalization (that is, computer-driven adaptation, as opposed to user-driven adaptation): "Boston" was included in the list of interests because this screenshot was snapped on a computer located in the Boston area (something the computer probably guessed by an IP lookup). This allows users to complete the initial set-up even faster than if they had to chose their city from a long menu.
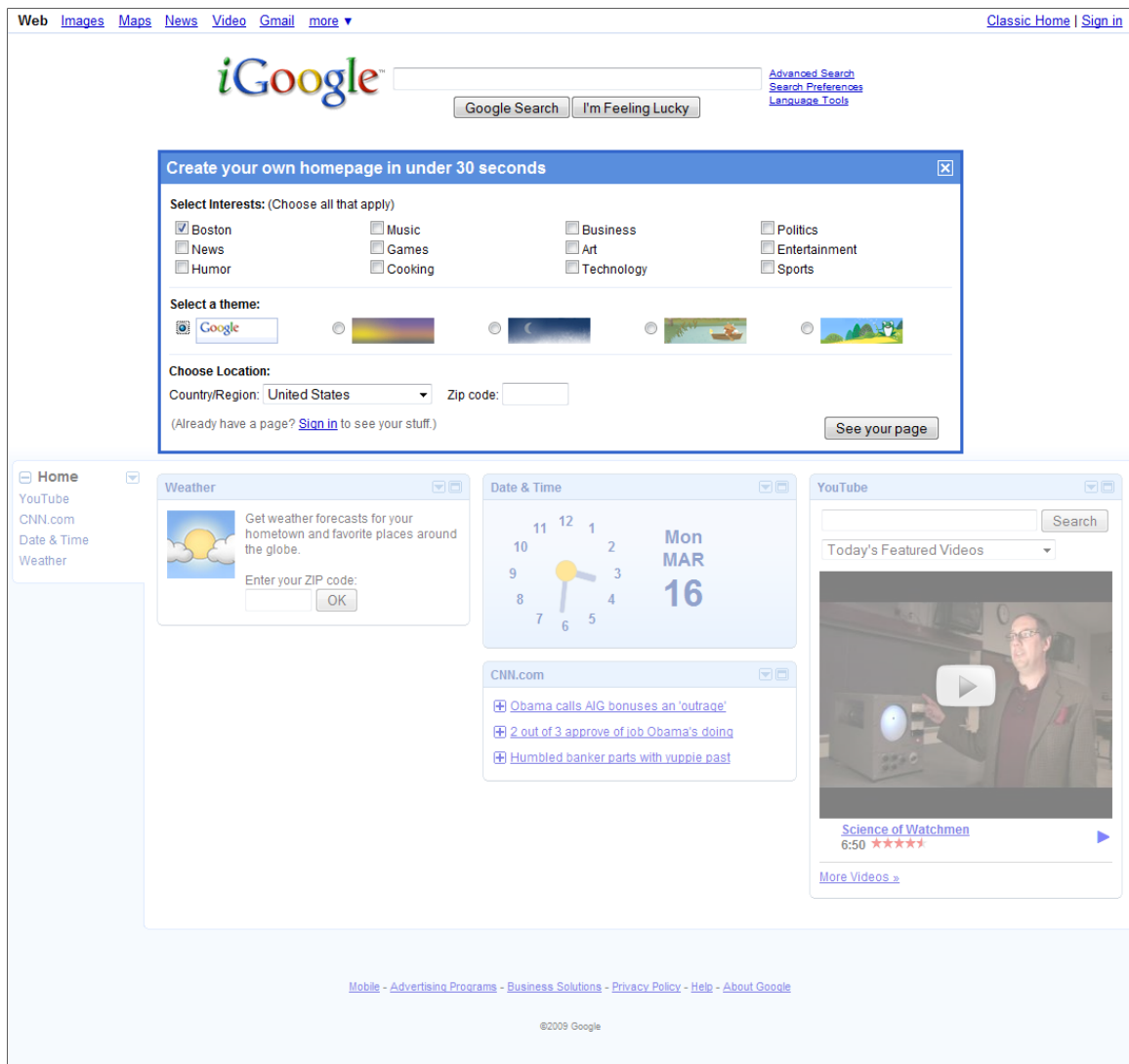
iGoogle's default homepage invites users to customize their homepage in less than 30 seconds.
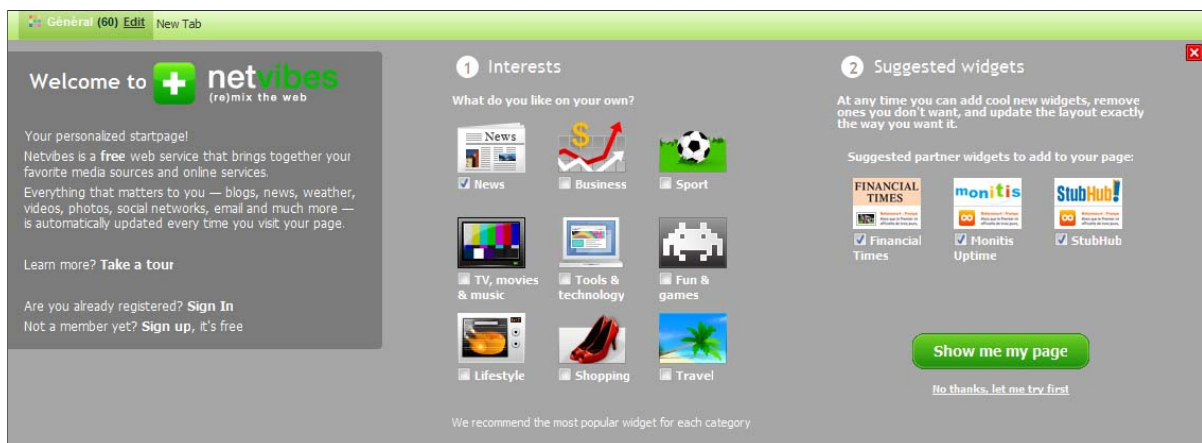
The netvibes homepage requires just two steps to customize your homepage with more details that can be added later.

4. As part of quick set-up, show users how to further customize.

Once users have completed a quick set-up process, it is useful to show them how to make additional customizations. This encourages them to further invest in the page to make it their own.

At the end of the quick set-up process on My Yahoo! a graphic points out the link users should access to further customize their homepage.
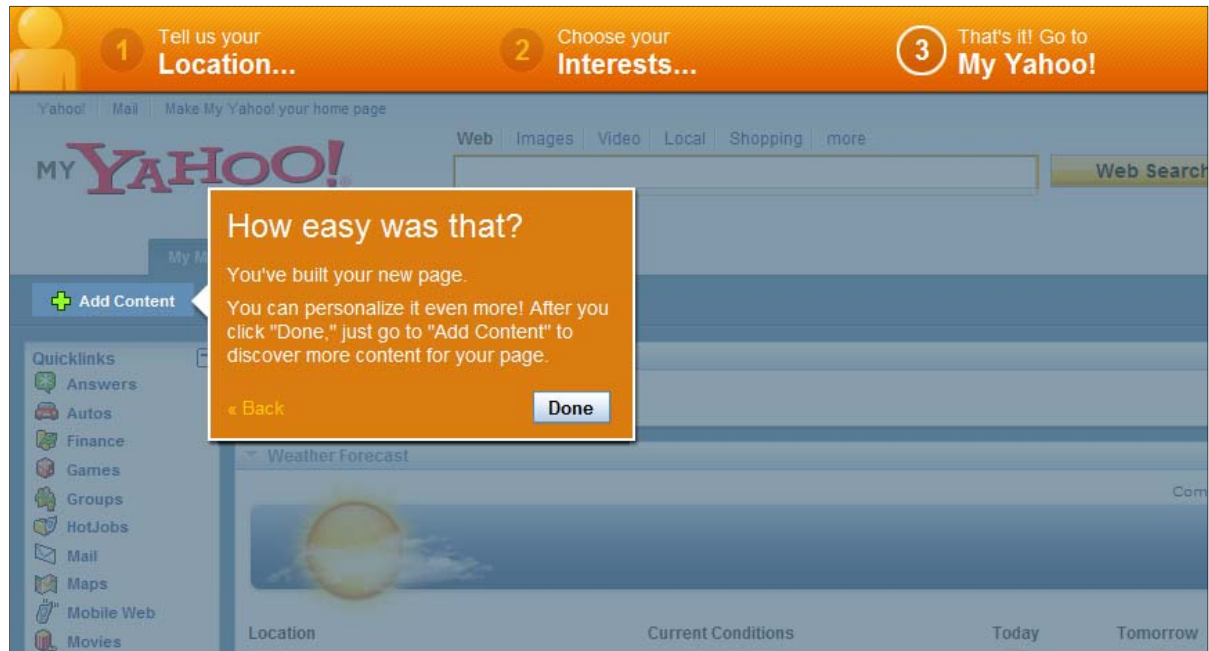
My Yahoo! points out the link users should follow to further customize their experience.

5. Intuitively name customization links/buttons.

Naming is a significant usability issue we noticed in our testing. Half of the users who tested the Pageflakes site did not realize that they needed to click on the "Menu" button to see the "Flakes" that could be added to their custom page. One user scoured the site looking for a way to add a to-do list to his page; it wasn't until three minutes into his search that he found the "Menu" button.

Some users clicked on the "Add Page" link which created a new tab for the homepage, but did not provide a path to add features; this caused a great deal of confusion.
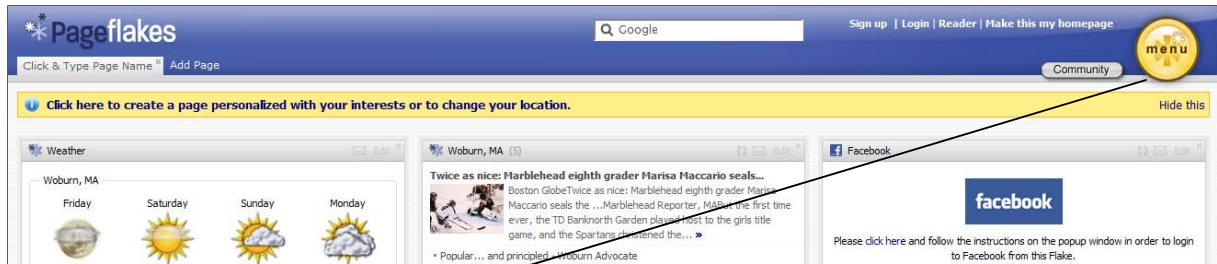
The *Menu* button was not recognized by users as a logical path to add features to their custom page.

Users had far less trouble finding links to add features on the iGoogle and My Yahoo! sites which intuitively name the links "Add Content" and "Add Stuff". However, they did get confused by some link names such as *Add A Tab*. One user commented, "Add a new tab? I don't know what a tab is."
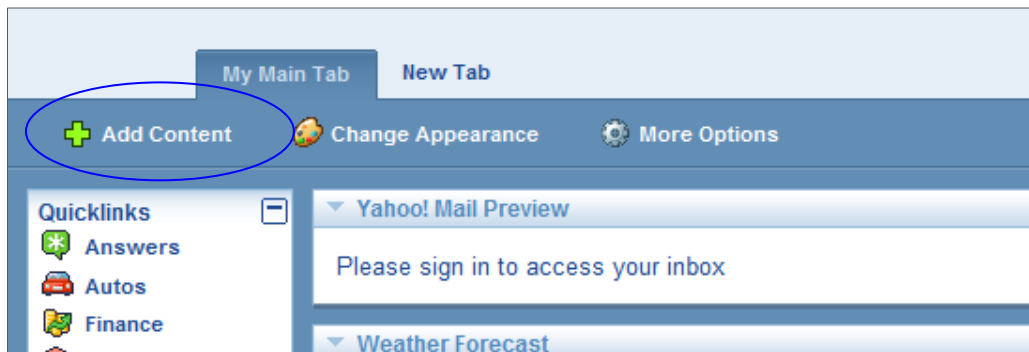
"Add Content" was a link most users noticed and recognized as the path to add features to their custom homepage.

In general, the users on the Pageflakes site experienced the most name-related confusion and self-doubt because of brand-driven and vague link naming. The most significant issues:

- Calling content and tools *Flakes*

- Referring to public pages as *Pagecasts*

- A section called *Pageflakes Central* (an ambiguous term with no information scent)
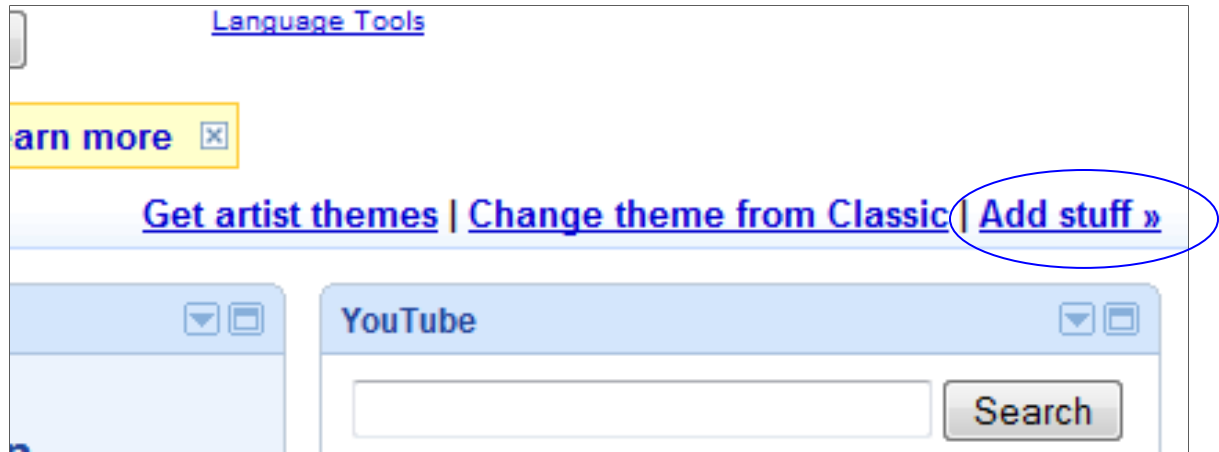
"Add Stuff" was a link most users saw and understood as a path to add features to their custom homepage.

6. Describe the scope of customization functionality.

Users unfamiliar with customization will need to be convinced that this is something useful. In our testing, users were split in their attitudes toward the offerings. Some were pleased with the discovery that such services existed, one exclaimed "This is good!" while another lamented "I don't see the point. I would go to Boston.com to get news. Would use MoviePhone if I want to look at movies and MSN for all else."

First, it's important to assume that users need to be told all they can do with customization — the types of things they can monitor, read, see — as well as the flexibility of the environment to serve their needs. The customization websites we examined did not do enough to convince users of their usefulness. However, each did some things that, combined, would better encourage adoption.

My Yahoo! includes a sample page with call outs to simplify the value proposition while illustrating it in context.

This page in the My Yahoo! tour shows a fully loaded custom page and uses call-outs to highlight functionality. Unfortunately, users only see this if they click on the *Page Tour* link located in the page footer.

Netvibes describes the types of content you can add to your custom page.
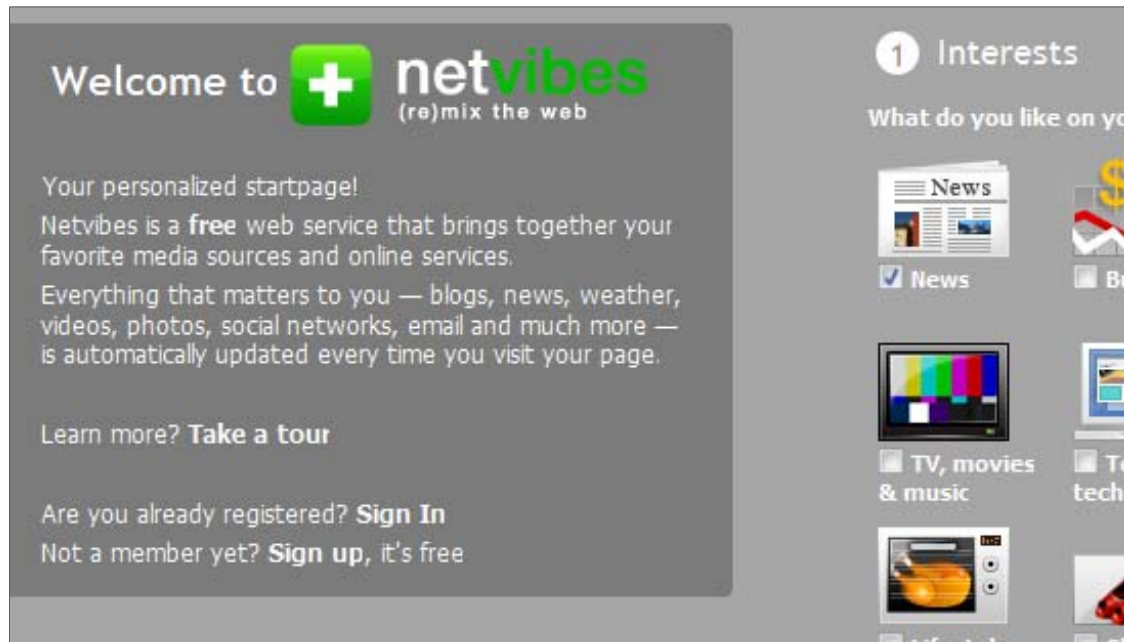
7. Offer examples of intention-based customization to illustrate usefulness and serve as templates for shortcut customization.

To get users to customize, it is useful to show them how a custom page could serve their specific needs. Unfortunately, none of the sites offered example custom homepages to illustrate how the pages could serve different user intentions (e.g., a page for someone who follows the stock market, a page for someone who manages all of his communications in the interface, a page for someone who likes to manage the blogs she reads daily, etc). However, iGoogle recently added a "Showcase" featuring the iGoogle pages of celebrities and thought-leaders. Including these examples not only places the service in context, but also provides exposure for content and tools that can get lost in the catalog of possible customizations.

Additionally, these sample customizations serve as templates for users to select from and kick start the customizing process. Users can save the person's page as a tab of their iGoogle homepage or select individual gadgets from the person's page.

Introducing the iGoogle Showcase

Discover new and interesting gadgets and themes as you browse iGoogle homepages created by world-renowned celebrities and thought leaders. Like what you see? Add stuff to your own homepage with just a click.

Al Gore
Founder, Alliance for Climate Protection

Anna Sui
Fashion Designer

Demi Moore
Actress

Dave Matthews
Musician

Ashton Kutcher
Actor & Founder, Katalyst Films

Martha Stewart
Founder, Martha Stewart Omnimedia

Keith Urban
Musician

Betsey Johnson
Fashion designer

Donald Trump
Chairman/President, Trump Organization
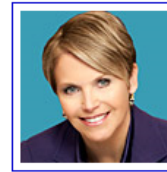
Katie Couric
Anchor, CBS Evening News

The iGoogle showcase provides users with example iGoogle pages from various celebrities and thought leaders.

Users can select gadgets from a celebrity showcase to include on their own custom homepage or select the entire page to be replicated as one of the tabs.

8. Make it easy for users to browse and search for content/tools.

On some sites in our study, users struggled to find a specific feature to add to their custom page. The reason for this was that some sites prioritized "featured" content over the paths to find desired content. One user noted "I felt like Yahoo was more directing me to what they wanted as opposed to what I wanted." Another user on the Pageflakes site spent almost 20 minutes on the site looking for a specific feature and never noticed the *Browse All Flakes* button that would have taken her to a page from which she could find what she needed. Users were frustrated that they could not click on the category headers such as *News* and

Tools to see more options and were confused by the items represented across the screen with large icons — wondering if these were categories?

The Pageflakes default screen for adding content is a list of "featured" Flakes organized under unclickable category headers. Across the top, Flakes with large icons confused users who thought they might be navigation categories.

While My Yahoo! included a search field on its default "add content" interface, users did not immediately notice it. Instead they spent considerable time scanning the limited options listed in the body of the screen thinking those were the only choices. One user commented when he finally noticed the search field, "I don't know why I didn't see that. There was a bunch of — maybe they're the most popular ones, so they are right there and button to scroll through them, so I thought that was all that was available."
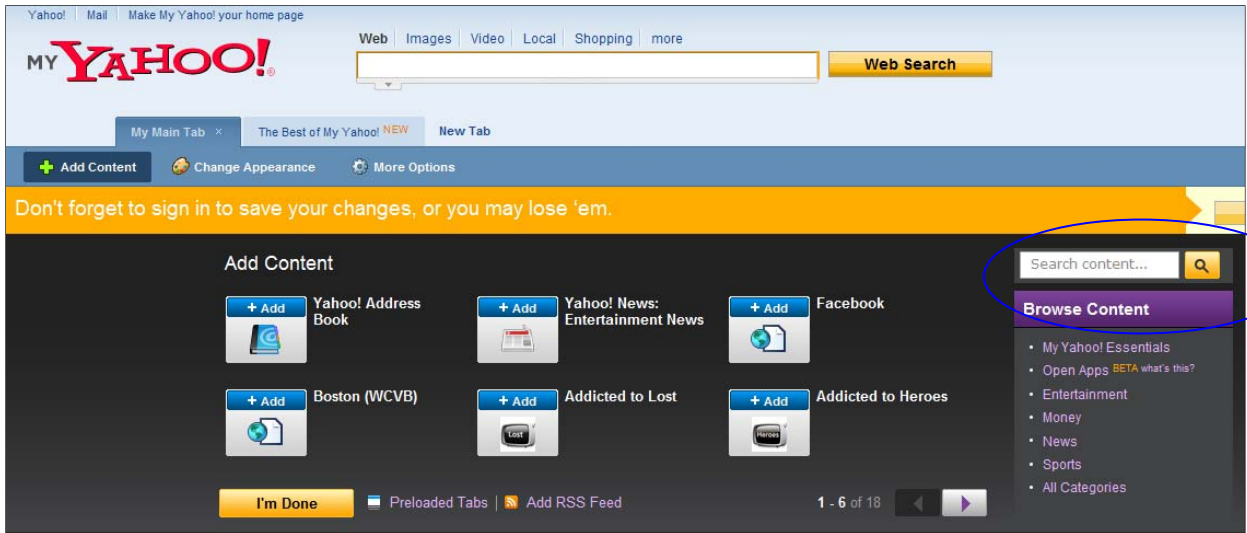
Users did not immediately see the search field on the right-hand side of the page and mistook the options in the middle of the page as all that was available.

Users experienced fewer issues adding content on the iGoogle site with search in the upper right-hand corner and categories listed along the left-hand side of the page.

Users noticed the search box on the right-hand side and used it when looking for items that did not appear in the body of the page.

9. **Define and present an intuitive and extensible organization schema for content/tools.**

It is important for customization components to be organized so that users can:

- Locate desired components

- Discover content and tools that will encourage use

The iGoogle Gadgets section categorizes gadgets into 10 categories and allows users to sort by three facets: Hottest, Most Users, and Newest. The default display is the "Hottest" gadgets across all categories. This is a useful user-centered structure versus other sites that are promoting gadgets based upon

distribution deals they have with the content providers. In those cases, users are presented not with what may be useful to them based on what is useful to others, rather what the offering wants them to add to their page based upon business arrangements.

(Besides a "most users" listing, it should be possible to employ a bit of personalization to help the customization process, in the form of a *"other users like you use these"* feature. This could be implemented with some form of collaborative filtering along the lines of Amazon.com's "*people who bought this book also bought these books"* recommendations. A somewhat related feature is discussed under guideline #14.)
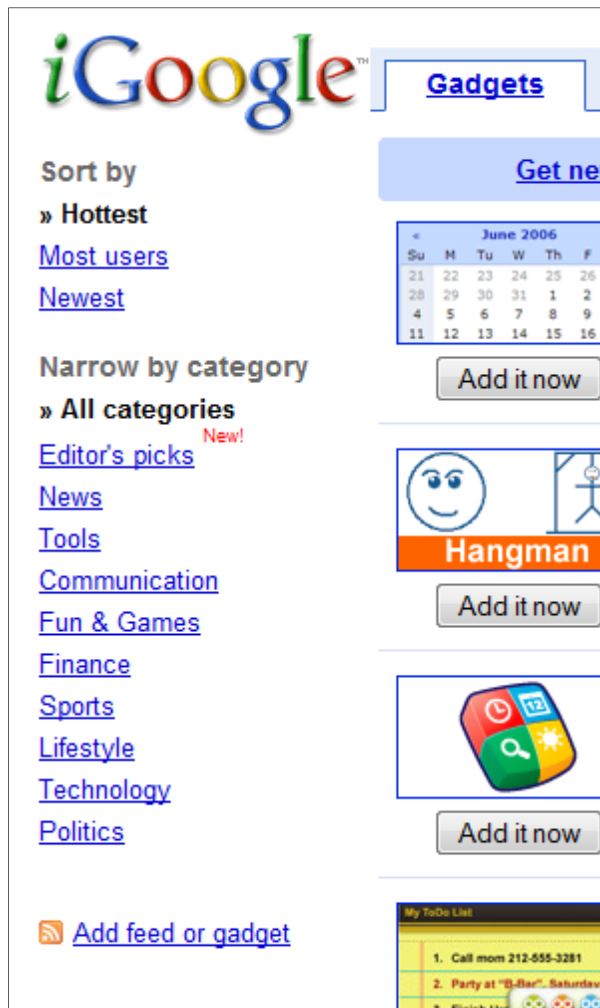
The iGoogle categorization is intuitive and helpful to users looking for gadgets that meet their needs.

Users experienced trouble adding specific content/tools on the Pageflakes site. The first issue is that when a user clicks on the *Menu* button, it defaults to highlighted "Flakes" instead of presenting categories from which to browse. Second, once the user does find the page to browse through all Flakes, there is no category-based navigation. Instead, the site offers only filters, a list of the newest "Flakes" and a list of popular tags. Standard category-based navigation

would be extremely helpful here especially since there are approximately 236,000 Flakes to choose from.
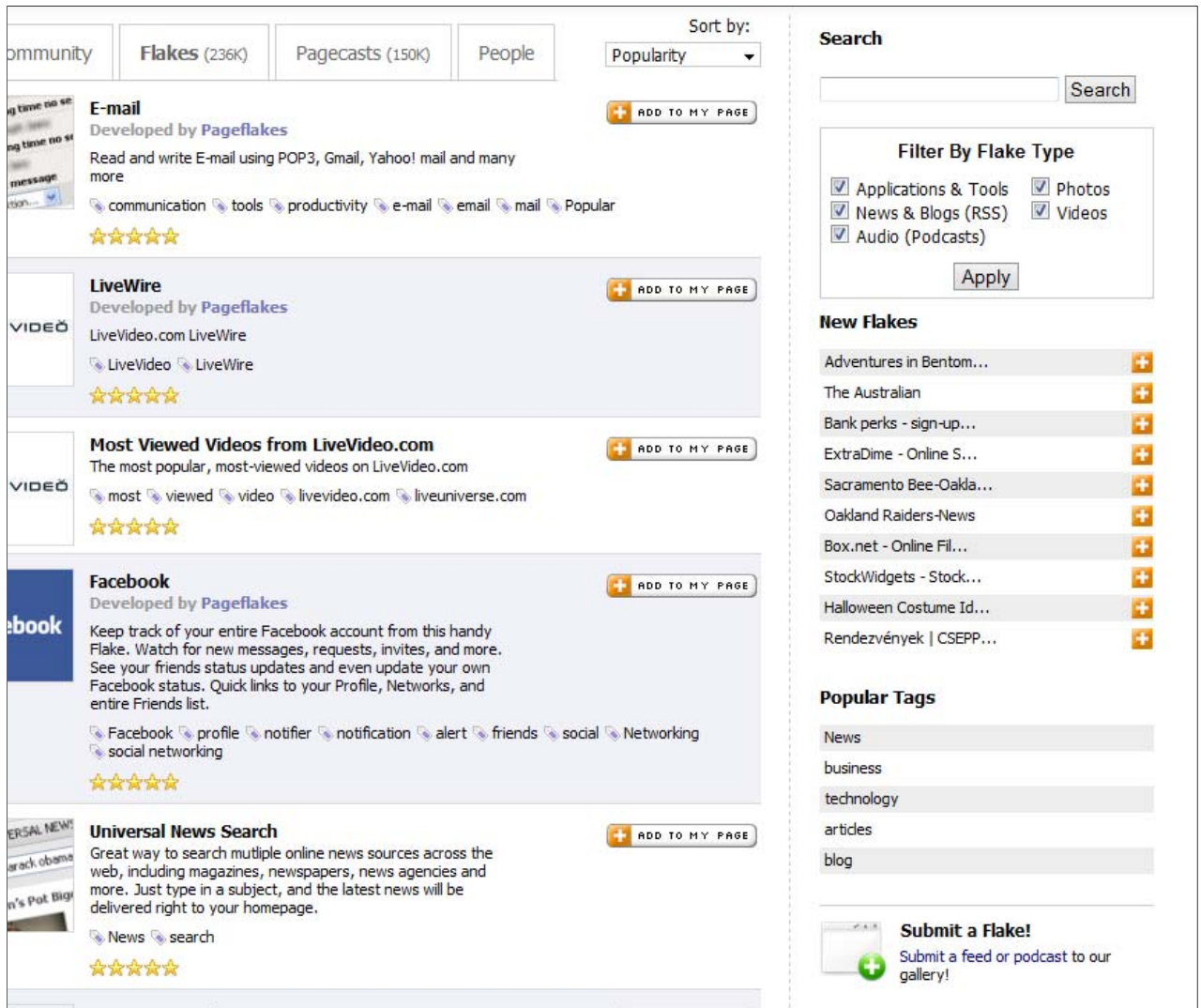
The Pageflakes interface to add "Flakes" does not include any type of structured categorization making it difficult for users to find content and tools.

10.Separate form and content customization.

On some sites, users could change the look and feel of their custom pages. It's important that this functionality is distinguished from content customization so that users understand one option controls the appearance versus the other which allows them to customize content and tools. Both iGoogle and My Yahoo! do a good job of distinguishing these different types of customization.
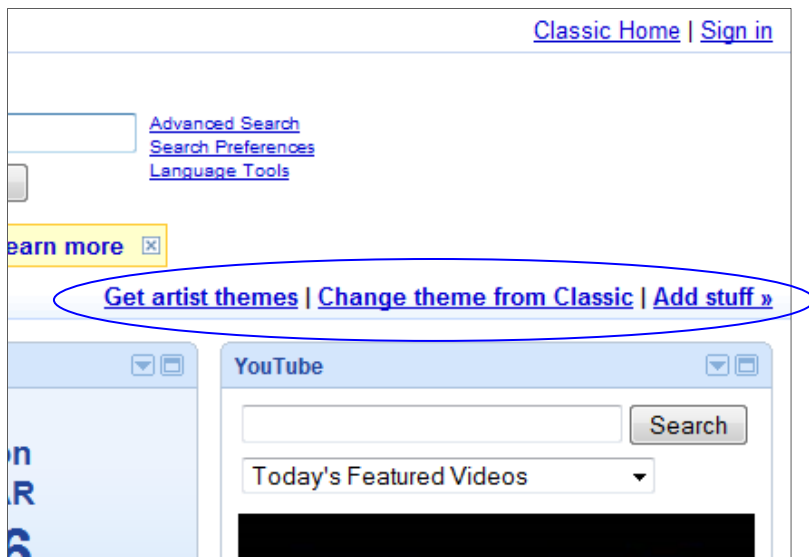
My Yahoo! and iGoogle provide separate links to add content and adjust the look and feel of custom homepages.

11.Utilize icons to aid scanning and eliminate icons that cause interface clutter.

Users complained about icons that did not help them differentiate items from one another and cluttered the page: "It was hard to find what I was looking for. Quicklinks all blend together; Same font, little icons on the side (points to sidebar) — I took a glance at it and then had to stare at each item."

The Quicklinks icons on the sidebar did not help users scan the list and some complained that it actually made scanning harder.

Users expressed frustration with the little icons commenting that they didn't help them find what they were looking for.

12. Provide thorough content/tool previews to help users decide which to include on their pages.

Selecting components to add to the custom homepage can be a daunting task given the amount of features users can select from. On Pageflakes, there are over 230,000 "Flakes" for users to choose from.

In the default presentation of featured Flakes on the Pageflakes site, the only detail users are provided is in small roll-overs such as the one below.
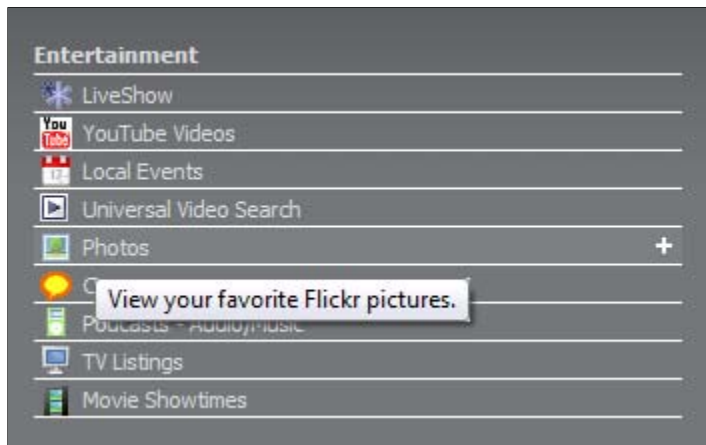
Pageflakes default content listing shows only a vague roll-over to describe the content/tool.

On the My Yahoo! site it is not apparent that there are previews, unless the user runs his cursor across the feature icon at which point a link appears.
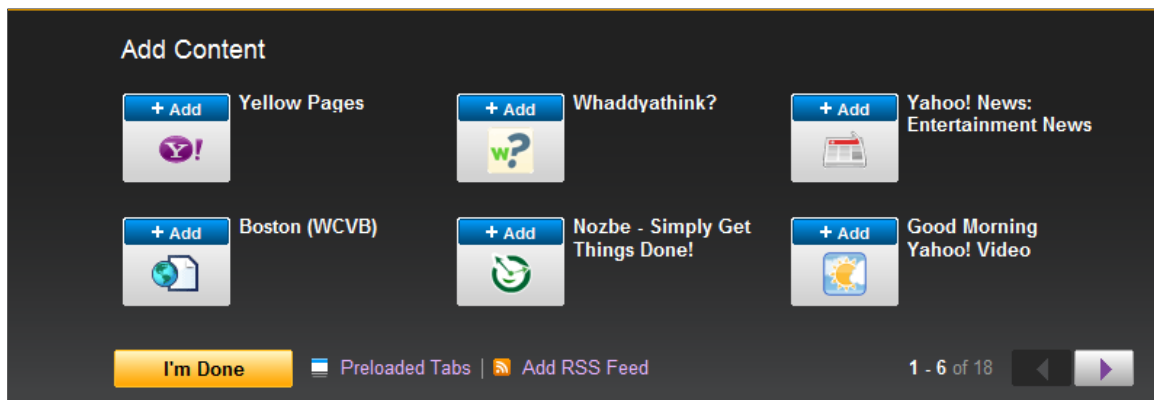
My Yahoo! content icons with no preview links.
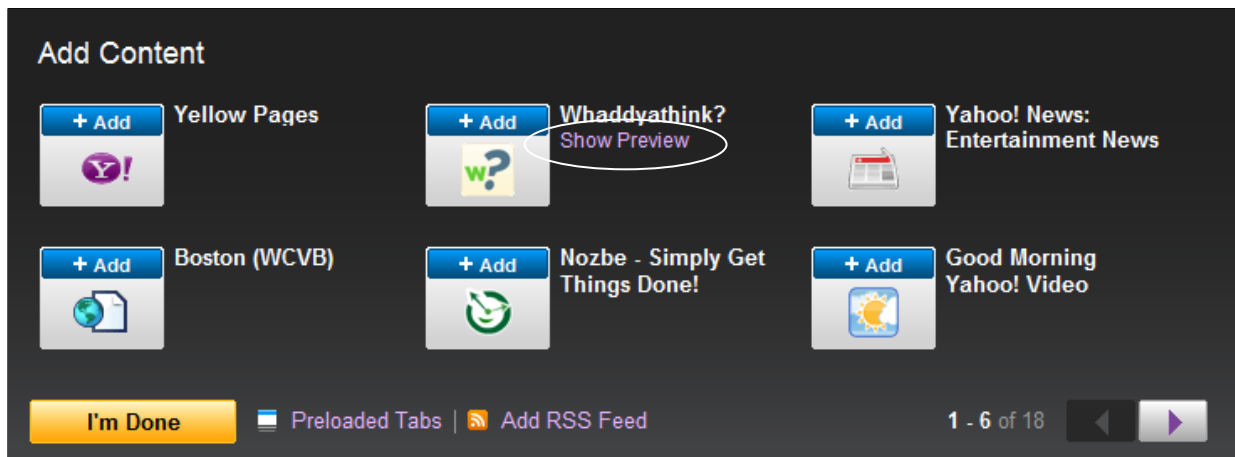
Upon rollover, the preview link finally appears.

Any of the content/tools that draw data from a user's account do not include previews at all, making it impossible for users to adequately evaluate one feature over another. In this case, a mockup with dummy data would provide the necessary context.
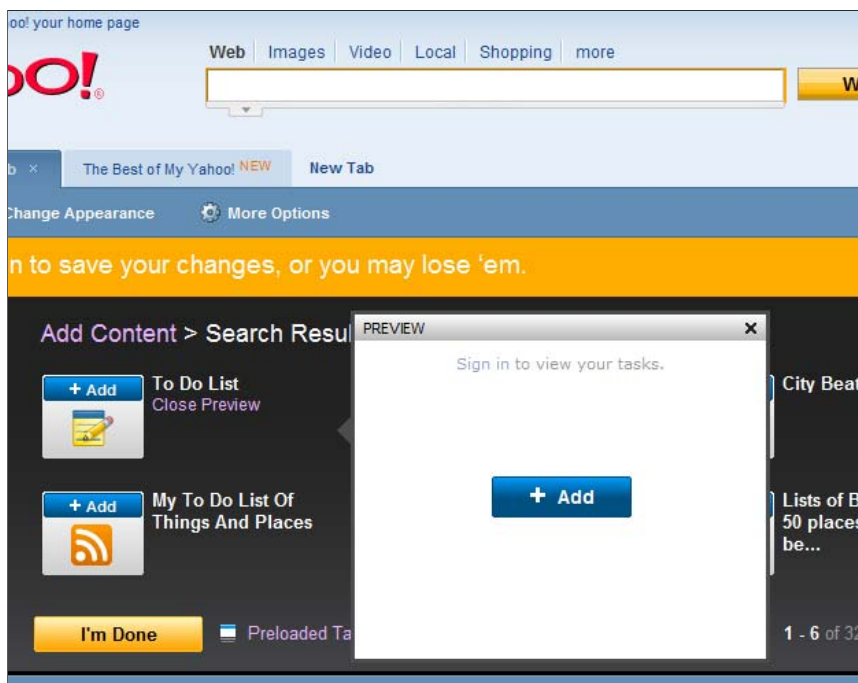
My Yahoo! content/tools that utilize a user's account data are blank.

However, My Yahoo! does provide helpful illustrations of content/tools that don't rely on user account data, such as the various financial data components.

Useful preview illustrations show users what the content will look like on their custom page.

The most detailed content/tool previews were on the iGoogle site which included a full page preview for each "Gadget" with a description, illustration, user reviews/ratings and links to related gadgets.

« Back to iGoogle home

iGoogle   Gadgets   Themes

My ToDo List   FULL SCREEN >

1. Call mom 212-555-3281
2. Party at "B-Bar", Saturday 9pm
3. Finish Urgent Project
4. Take a vacation
5. Add new item

ToDo   « Back to gallery

By LabPixies

Easily manage and track your daily to-do list. ToDo gadget lets you add your tasks, highlight them in different colors, change their order on the list and strikethrough or delete tasks that are done - everything you need to get things done!

926,433 users | ★★★☆☆ 560 ratings

[Add it now]

✉ Share this gadget

Search for gadgets

[   ] [Search]

You might also like...

S T I C K Y   **Sticky Note**
N O T E S   ★★★★☆ 545 ratings
                [Add]

Birthday Reminder
★★★★☆ 55 ratings
[Add]

MyListy
★★★★★ 115 ratings
[Add]

Weather Forecasts
★★★☆☆ 228 ratings
[Add]

To-Do List
★★★★★ 185 ratings
[Add]

For webmasters

Place an "Add to Google" button »

Embed this gadget »

View source »

Comments (30)   1 2 3 4

Sign in to write a comment for this gadget.

to do Gregory Totman - Mar 16, 2009
I might be stupid yet is the to -do list only limited to 7 items , Is there a secret way of flipping the page or is that it ? is there preferences that need to be altered?

courtneys to do list courtney petrilak - Mar 15, 2009
say hi to everybody you can have braekfest clean room feed fish

★☆☆☆☆ - steve ford - Mar 15, 2009
Now adds a crappy pop under

restore notes from iGoogle backup? Giovanni Corazzol - Mar 14, 2009
I have tried My Account>My products>iGoogle>Settings then, in "troubleshooting", Restore now. In this section one can choose to make a page backup at any time.

Working now Richard Hua - Mar 13, 2009
Actually for some reason it's working again.

Same Richard Hua - Mar 13, 2009
My to-do list has disappeared too. I'm on XP and firefox.

What happened to my To Do list????? Lawrence Czarnik - Mar 13, 2009
Had 3 very important notes to do for myself and now they are gone. Not in maximised. not in igoogle. Where are they stored? Where are they? can you get them back

Lost mine too Anonymous - Mar 11, 2009
Both my Sticky Notes and To Do entries have disappeared. No more LabPixies gadgets for me.

Report a policy violation in a comment

« Back to iGoogle home

Most of the content in this directory was developed by Google users. Google makes no representations about its performance, quality, or content. Google doesn't charge for inclusion in this directory or accept payment for better placement.

Community Guidelines - Privacy Policy - Help - About Google

©2009 Google

The iGoogle gadget detail pages provide the user with ample information to decide whether or not to add a particular gadget to his page.

13. Provide reviews and ratings with feature preview information.

Whether for site customization or for purchases, users like reviews — good and bad — and rely on them increasingly to aid in decision-making. When we asked users to find a to-do list, those that clicked through to this page read the reviews to gain a sense of the quality of the tool. If you are offering a significant number of overlapping tools, reviews can be useful to help users differentiate and decide upon the best fit.

Comments (30)   1 2 3 4

Sign in to write a comment for this gadget.

to do Gregory Totman - Mar 16, 2009
I might be stupid yet is the to -do list only limited to 7 items , Is there a secret way of flipping the page or is that it ? is there preferences that need to be altered?

courtneys to do list courtney petrilak - Mar 15, 2009
say hi to everybody you can have braekfest clean room feed fish

★☆☆☆☆ - steve ford - Mar 15, 2009
Now adds a crappy pop under

restore notes from iGoogle backup? Giovanni Corazzol - Mar 14, 2009
I have tried My Account>My products>iGoogle>Settings then, in "troubleshooting", Restore now. In this section one can choose to make a page backup at any time.

Working now Richard Hua - Mar 13, 2009
Actually for some reason it's working again.

Same Richard Hua - Mar 13, 2009
My to-do list has disappeared too. I'm on XP and firefox.

What happened to my To Do list????? Lawrence Czarnik - Mar 13, 2009
Had 3 very important notes to do for myself and now they are gone. Not in maximised. not in igoogle. Where are they stored? Where are they? can you get them back

Lost mine too Anonymous - Mar 11, 2009
Both my Sticky Notes and To Do entries have disappeared. No more LabPixies gadgets for me.

Report a policy violation in a comment

« Back to iGoogle home

On the iGoogle site, users are invited to post comments/reviews and ratings of their experience with individual gadgets. This information is displayed on the gadget detail page.

14. Utilize "related items" navigation to make users aware of other content/tools.

Presenting related options on detail pages is an efficient and effective way to make users aware of other content and tools. For example, in our tests, we asked users to find a to-do list tool. On the iGoogle site, users drilled down to a particular to-do list tool to get details and on that page Google also listed related and alternative options that may have better met the user's needs. If users, after reading the description, seeing the image and reading user comments decided this tool was not the best option, they could quickly scan through the related gadgets listed to the right instead of having to start the process from the beginning. Related links allow users to easily explore options.
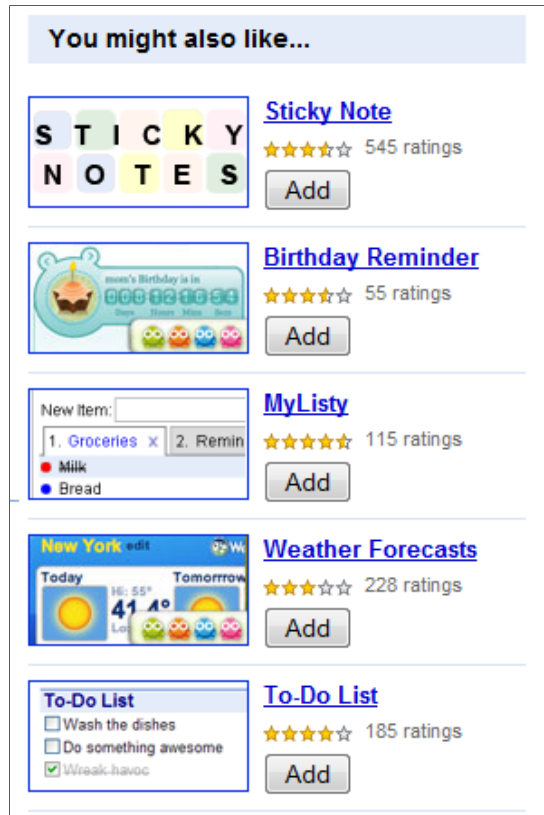
iGoogle includes "You might also like…" related content/tools to help users explore potential gadgets for their custom homepage.

15. Indicate when an item has been added to the user's custom interface or any other change occurs.

Another issue that almost every user in our study encountered was confusion over whether or not content/tools had been added to their page. In many instances, users added the same tool multiple times because they did not know if the site had responded to their request. One user commented, "I can't tell if it's doing anything. Going to click on this 'To Do.' I'm a little confused; It's telling me to add it now. So, I feel like I haven't added it." The user then clicked it again. "So, I guess it's added now. I'll go back to iGoogle home to see if it went through." Upon returning to her custom iGoogle page, she discovered the following: "Looks like I have two to-do lists…I guess I would see if I can delete this gadget."

The confusion on the iGoogle site is that the "Added" status from the listing screen does not carry through to the detail screen. So, while this user had actually added the gadget, the *Add it Now* button still appeared when she clicked through to the details page. Designers may have assumed that users would not add an item and **then** go to the details page — that defies logic, right? Actually, no; users behave this way all the time. The logical path is not always the one that users follow and designer should plan for this and other seemingly illogical navigation habits.

The status on the listing screen indicates the gadget has been added, but when the user clicks through to the details screen, there is an *Add it Now* button making the user think she did not actually add the gadget on the previous screen.

On the Pageflakes site, the default screen indicates a Flake has been added with a tiny plus sign, but it also immediately places the new element at the top of the user's custom interface which is visible while the Top Flakes window is expanded. However, some users did not notice this change and were unaware that the Flake had been added: "Oh wait! I just clicked this thing and didn't know it was already appearing on the page. I now have three of them…It would kind of be nice if rather than just putting it below they actually gave a confirmation somewhere right in the box. I was looking for something that said 'you've just done this'."

When users select a Flake form the Top Flakes window, the item is added to the top of the custom homepage interface which is still visible.
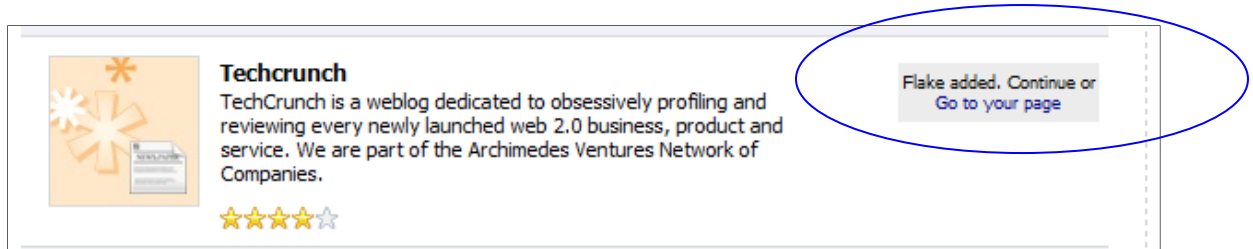
When the user is in the All Flakes section of the site and adds a Flake, text on the right-hand side indicates that the element has been added to the user's custom homepage.

16. Distinguish shared from private pages.

If your environment allows users to share custom pages it is important to distinguish between the two. Users who misunderstand and think their custom homepage will be seen by unauthorized parties may balk at using customization features. Pageflakes offers something called Pagecasts which are really a simplified publishing environment. It allows users to create Pagecasts and add Pagecasts to their custom homepage, but users did not understand this concept.

Users did not understand the difference between Pagecasts and Flakes. The concept of self-publishing or adding content from self-publishers was not adequately explained or presented.

17. Identify and explain drag-and-drop functionality.

Seven of the 12 users moving items on their custom homepage experienced minor to moderate difficulty with the task. To some, the ability to move Web page elements via "drag and drop" simply is not evident. They don't expect the Web to behave this way, so they don't think it is an option. If your site has this functionality, remind users that they can grab page elements and move them. Illustrate where they need to point the cursor and what the cursor should look like when it is properly engaged.

18. Explain "new page" concept and usefulness.

Page tabs was another element that confused study participants. The issue lay primarily with the concept of "adding" elements. For some, the mental model of this activity was that they would first look for a place to add something instead of

browsing through page elements and select them to be added to their custom homepage. As one user started the task, she said "I need to find where I can put a to-do list." Another user clicked on the add a page link because she didn't understand that the page she was looking at had actually been customized for her — she thought she had to go elsewhere to see her page.

This feature is really only appropriate or necessary for power users. There may not be a better name than "add tab" or "add page", but it would be helpful to include a link to add content in the center of the new page/tab to help confused users recover quicker.
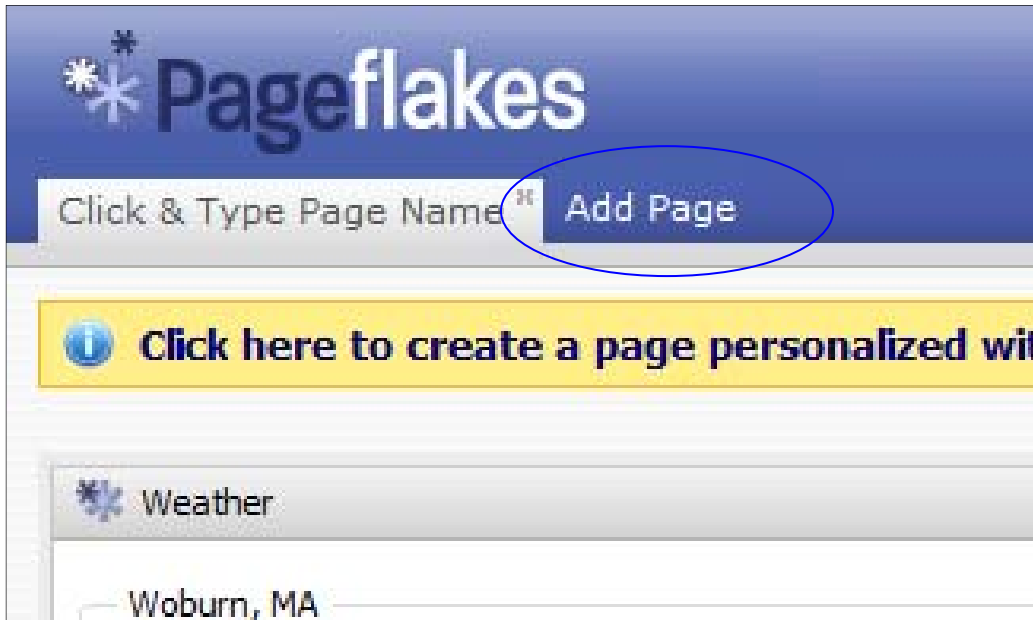
The *Add Page* link in the Pageflakes interface and *Add a Tab* on other websites sometimes confused users because they thought they would need to add a page in order to add content/tools.

19. Provide customization-specific help.

In some instances, users looked for links to help or FAQs to locate site functionality. It is important that users can easily find customization-specific help that is either in a stand-alone area or clearly organized within the general help area. Topics should include basic set-up, interface manipulation and how to find and add content/tools.
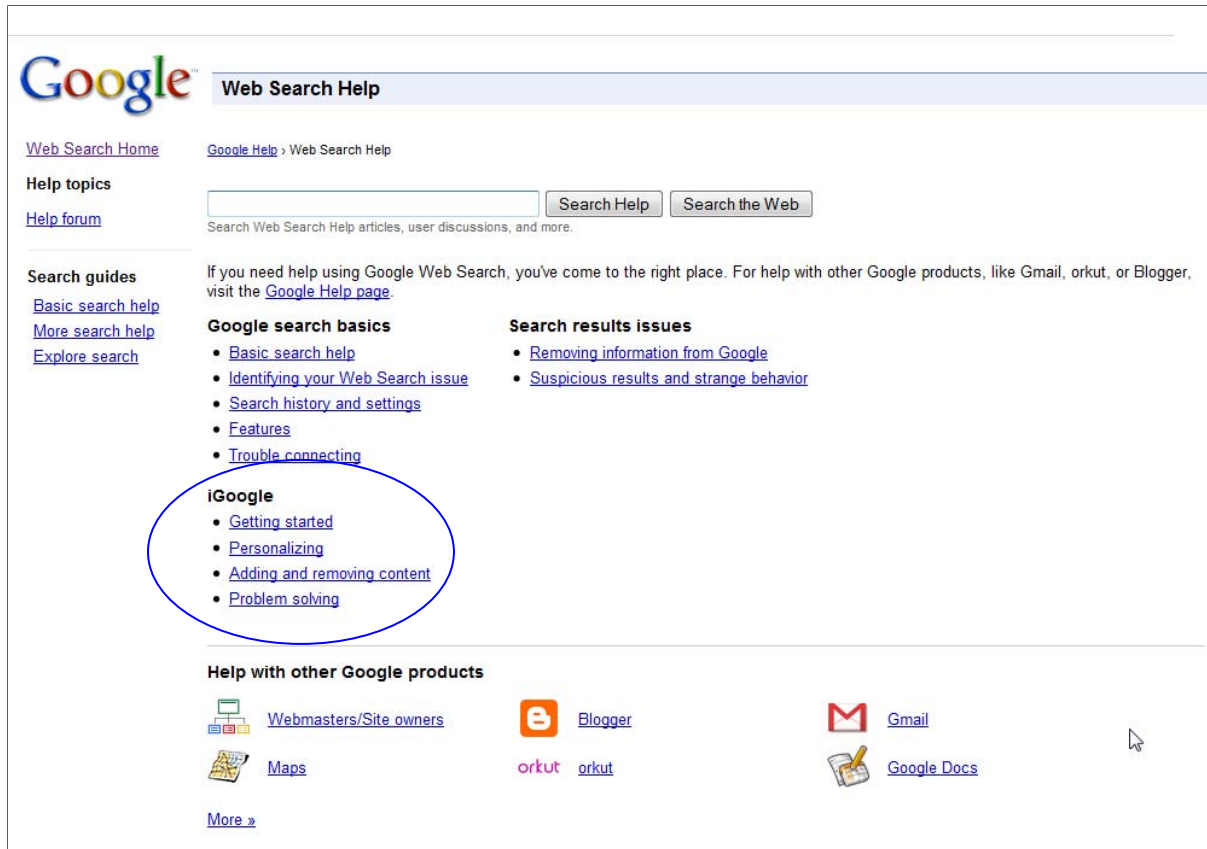
iGoogle help is not stand-alone, but it is clearly labeled as its own section within general Google help.

20.Confirm content deletion requests.

As users familiarize themselves with custom interfaces, it's not unusual for them to inadvertently delete content/tools. To avoid this and the accompanying frustration, include content deletion modal window pop-ups for confirmation.
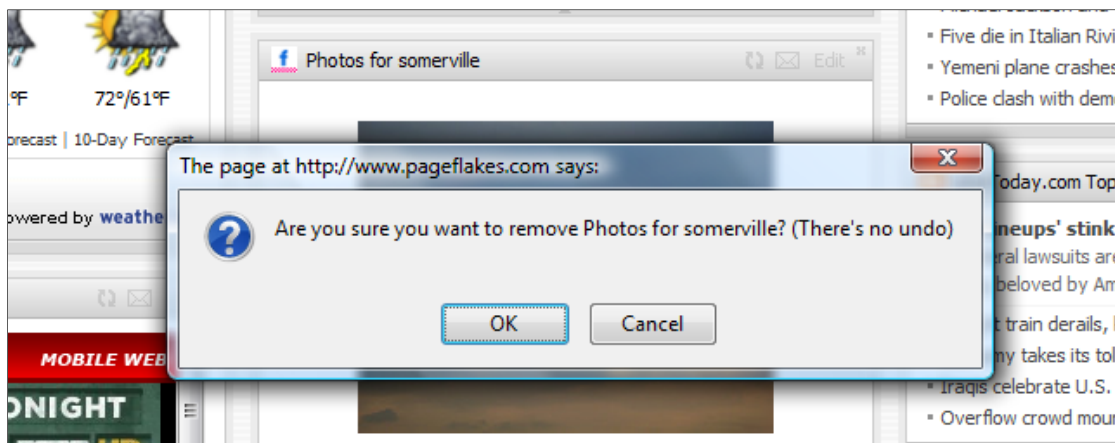
Pageflakes avoids unintended deletions by verifying with the user first. In this example, also note that it is much preferable to support undo for as many user actions as possible, including gadget deletion.

Product Customization

The web is a perfect channel for product customization:

- Infinite configuration options

- Real-time feedback

- Cost savings over catalogs, brick and mortar, and/or mobile sales force

The attractiveness of Web-based product customization has drawn traditional businesses to the Web (e.g., stationery) as well as upstarts offering product customization that was either not feasible using traditional means or was too expensive to be offered mainstream (e.g., custom cereal). The Web makes customization possible for all, but making these sites usable is a challenge unto itself. Usability is key to the success of these businesses because if users cannot configure their products, there is no sale.

Even if you don't read German, you probably recognize the classic car configurator, which is found on most models' websites. (Here: Lexus.de.) Unfortunately, automobile vendors currently don't use these configurators for true product customization, because they don't build the car the user has constructed. All you can do is to get the list price for your preferred options.

TASK DESIGN MUST BE DRIVEN BY THE USERS' MENTAL MODEL

To design effective and efficient product customization websites, designers must understand the users' mental model; how do users think about product configuration? How does it work in their mind? Where would they think to start? What would be the path? It is essential that design teams model and test customization workflows with users to understand their needs and expectations and what designs are most intuitive.

TWO PRODUCT CUSTOMIZATION TYPES

In our study, we examined two types of Product Customization websites:

- User selects a product and customizes it
- User assembles a product from various components

In the first model, users must find the desired customizable product and then customize the product. Examples of these are custom printed envelopes, announcements and t-shirts.

In the second model, users select from a variety of components to assemble a custom product. An example of this model would be the custom cereal website included in this test. The challenges with this model include defining an intuitive organization of components and providing context and comparison of choices so that users have enough information to assemble their custom product.

BIGGEST ISSUES WITH PRODUCT CUSTOMIZATION

Users experienced the most difficulty with a task that involved designing a t-shirt after having already designed one.

> **Task:** Design a second version of the shirt so your co-organizer has two options to choose from.

Task completion for this task is a lowly 44%. Users who were successful experienced moderate to major difficulty. The leading causes of task failure and frustration included:

- **Lack of workflow structure:** The Custom Ink interface is designed like a piece of design software. This requires users to spend a lot of time trying to determine how to configure their shirts and where to find specific functionality instead of just focusing on their design.

- **Inability to save and apply data:** Users can save a design, but cannot use it as a basis for another shirt, so they need to re-enter all of their design configurations with each new version of the shirt.

- **Misleading information on product selection page:** Users selected a particular shirt specifically because it came in both adult and youth sizes, but in the detail screen, there is no longer a youth option.

Overall, users experienced less task success and higher levels of difficulty in completing Product Customization tasks (versus Interface Customization). The good news is that there are great opportunities for improvement in the product customization space.

DESIGN GUIDELINES

21. Clearly indicate where and how to start the customization process.

The most important step in product customization is the first step. Getting users into the workflow can be complicated by what steps need to be taken before customization. For example, on the Action Envelope site, the user needs to find and select an envelope first before customizing it. This is the same with Tiny Prints (invitations) and Custom Ink (t-shirts). Whereas, on sites such as [me] & goji, the user can just hop into the customization process from the homepage without any previous selection — because the user is not customizing an existing object, rather he is configuring a cereal from scratch.

On the Action Envelope site, some users missed the point at which customization would begin. The screenshot below shows the pricing and options located on the detail page for a specific envelope. One user selected the 500 radio button and then the Add to Cart button. However, in order to customize the envelope, users are expected to select the *Printed* tab and place the order from there. One user commented "I didn't even see the *Printed* tab. I figured [customization] would come at the end." Users may not know you offer customization or mistakenly assume, like this user did, that they will have an opportunity to customize later which will inevitably end up involving customer service.

#10 Regular Envelopes (4 1/8 x 9 1/2) — 24lb. Bright White

E-mail | Help Chat

1 Choose a Color (34 Available)

By Color | By Collection | Eco Choices

24lb. Bright White	24lb.
24lb. FSC Certified - White	24lb.
Airmail	13lb.
White - 30% Recycled	24lb.
White w/Peel-n-Seal	24lb.
White w/Security Tint	24lb.

Specs | Gallery | Reviews | FAQs | Templates

Item #43687

Style Description
The mail system workhorse, great for personal or corporate business. The #10 "Legal" or "Business" size envelope is most common, but there are 14 regular-postage sizes to suit virtually any invoice, sales piece, check or correspondence. All are available with moistenable flaps on the long side, some available in peel and seal.. Plain or printed.

Matching Products
The item you are looking at is "24lb. Bright White". Select the checkbox to add one or more matching products to the cart with your order.

| Add | | Qty. | Price |
| ☐ | 8 1/2 x 11 Paper | | Enter Qty. |

ENLARGE ⊕   ORDER A SAMPLE

2 Pricing & Options

PLAIN No Printing   **PRINTED** From $37.95 / 50

Quantity	Price	
Enter Qty.	Enter any quantity or select a price below. (Multiples of 50)	
50	○ $7.95	
250	○ $11.95	Save 69%
500	○ $16.95	Save 78%
1,000	○ $21.95	Save 86%
2,000	○ $36.95	Save 88%
5,000	○ $93.95	Save 88%
10,000	○ $175.95	Save 88%
20,000	○ $333.95	Save 89%
50,000	○ $746.95	Save 90%

ADD TO CART

To customize a selected product, users need to select the *Printed* tab. Some users did not realize this and added the envelope to their cart expecting to customize later in the process.

An example of an impossible-to-miss customization invitation is the Tiny Prints detail level page. The user can go no further without customizing the invitation. The difference here is that Tiny Prints doesn't sell blank invitations, whereas Action Envelope does sell a blank product. However, there are better ways to present customization besides hiding it behind a tab. For instance, instead of the single *Add to Cart* button, they could have a two buttons; one to *Purchase Plain Envelopes* and another to *Customize Envelopes*.

The path to customization is very clear on this detail page.

On the [me] & goji website, the homepage features not one, but three links to the cereal customization process. This is definitely overkill; however users in our study did not have any issues with finding the cereal customization process on this site.

The [me] & goji homepage features three links to begin the customization process.

22. Communicate the scope of possible customizations.

Misunderstandings regarding what, specifically, about the product is customizable can lead to lost sales. For example, on the Tiny Prints site we asked users to create a moving announcement for an event planning business. One user, examining choices on a gallery-style page, discounted any designs that were colored brown saying, "I'm going to pick colors I like. I don't like brown." However, colors on many of the announcement designs can be changed in the customization process — she did not know this.

Another user didn't realize until later in the process that he could have had envelopes printed with his return address, but since he didn't realize that was a feature, he didn't budget for it and spent all his money on the cards and shipping.

Another user found a design she liked, but she assumed she could not use it because of language used on the sample illustration that said "We've moved to a new place…and we'd love to help you do the same!" The user looked at this card carefully and said, "That looks like it's for a real estate agency…doesn't work for my business. I assume it is customized for real estate agencies." She returned to the card again and arrived at the same conclusion.
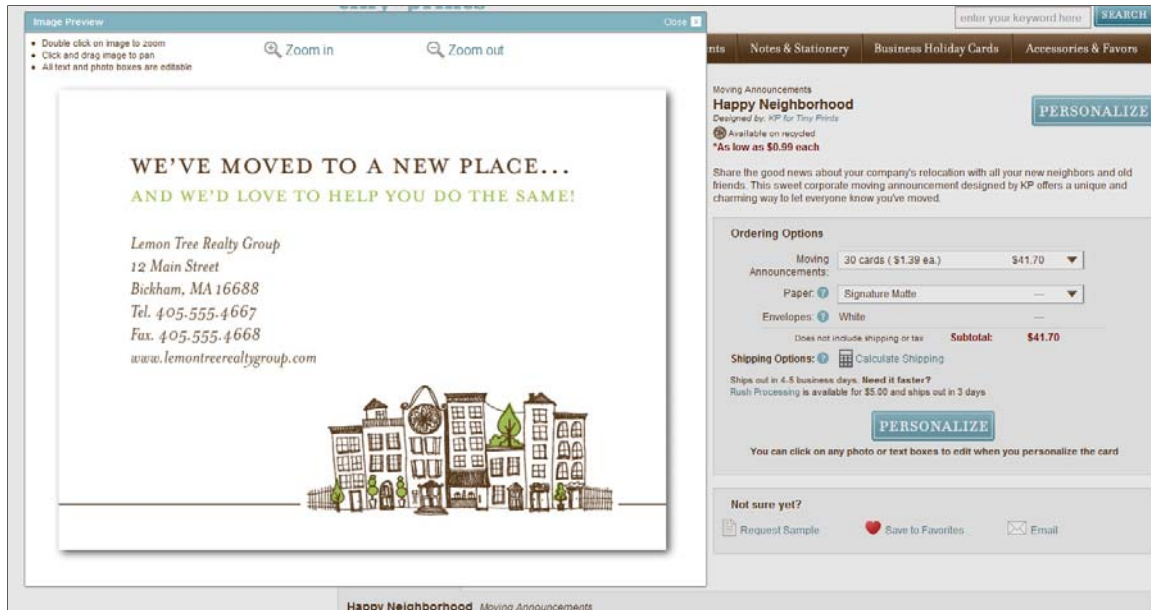
The user assumed this card was only for real estate agencies because of the reference to moving in the sample card.

One of the small bullet points above the card image says "All text and photo boxes are editable." This detail may have eased her concern, but the bullets are easily overlooked. It would be better to first enhance this message to make it clear that not only are the fields editable, but can be deleted. Second, it should be enlarged and placed where users cannot overlook it.
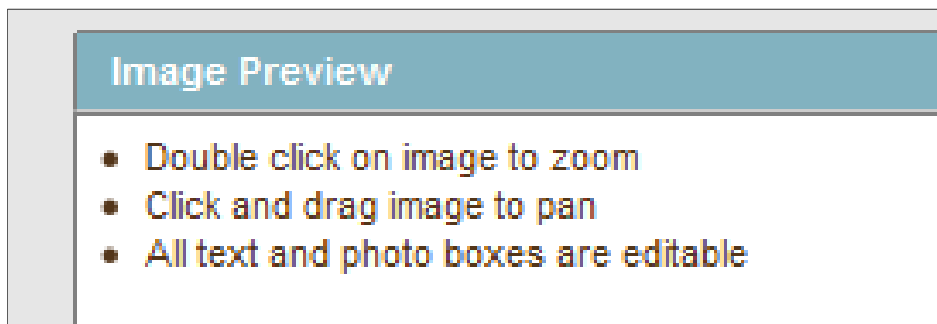
This message is important to users' understanding of what is editable on these invitations, but it is very small and poorly located.

23. Categorize and organize products in a user-centered manner.

Helping users find appropriate products to customize makes it easier to get them into the customization process. It is important to consider the criteria users are considering when selecting products. For instance, on Action Envelope, users can shop for envelopes by color, collection, size and use. Collection is a very useful categorization for someone shopping for a variety of envelope types, when they want them all to match. This categorization is unique to the stationery business and would not be something you would see when customizing t-shirts.
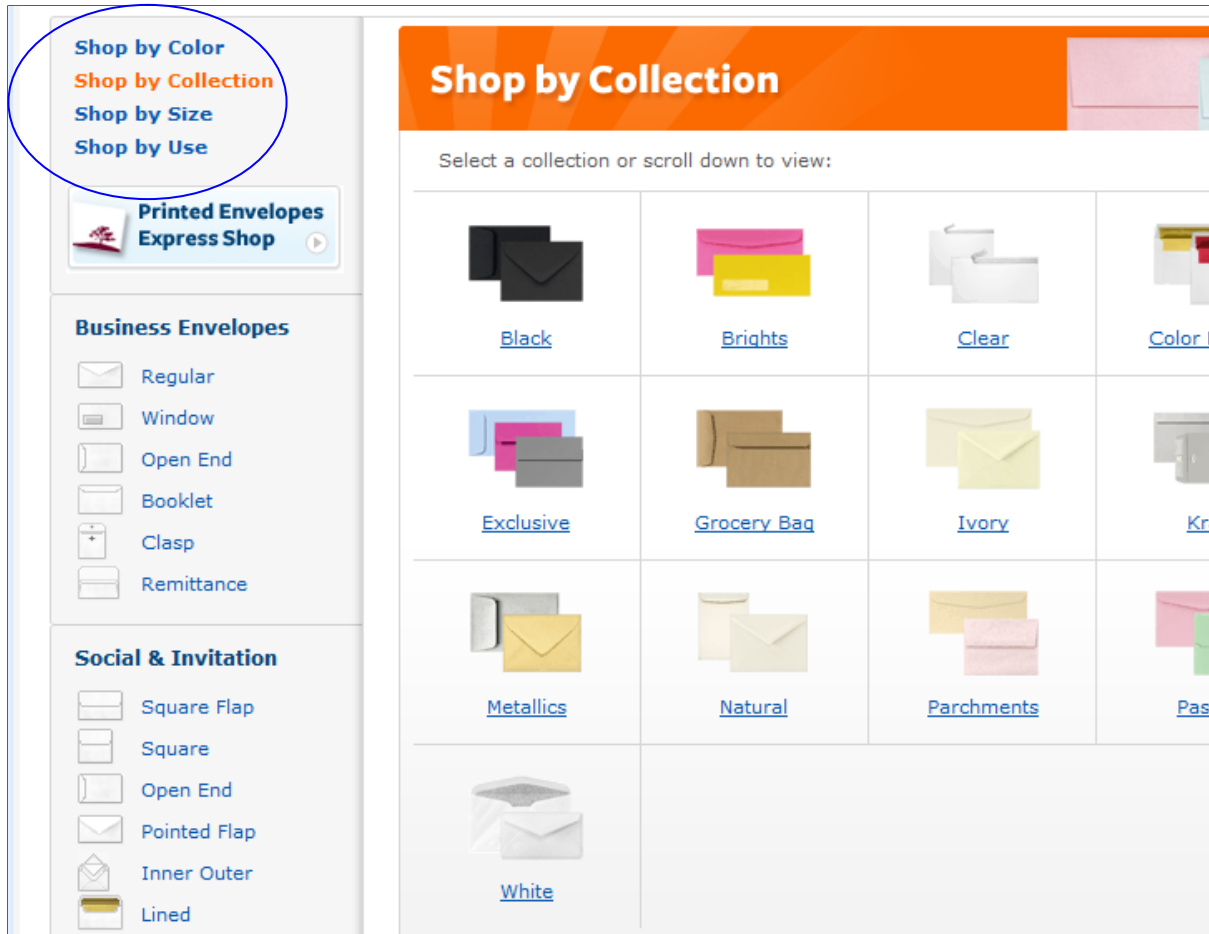
Action Envelope enables users to search for customizable products via multiple facets: color, collection, size and use. As well, it provides additional categories such as Business Envelopes and Social & Invitation.

Custom Ink presents an extensive and categorized list of products directly on its homepage. Categories are straightforward and specific enough for users to find products that serve specific uses.

Pick a Product

❯ T-Shirts
- ❯ Unisex
- ❯ Ladies & Girly
- ❯ Youth
- ❯ Infant & Toddler

❯ Athletics
- ❯ Teamwear & Jerseys
- ❯ Wicking
- ❯ Warm Ups

❯ Sweats
- ❯ Unisex
- ❯ Ladies & Girly
- ❯ Youth

More Than Just T-Shirts...

Ladies & Girly
Short Sleeve
Long Sleeve
Tanks & Sleeveless
View All

Long Sleeves
Unisex
Ladies & Girly
Youth
View All

Drinkware
Koozies
Water Bottles
Cups
View All

Youth
T-shirts
Long Sleeve
Athletics
View All

Shorts & Pants
Shorts
Sweatpants
View All

Business Wear
Polo Shirts
Casual Polos
Button Downs
View All

Infants & Toddlers
Infants
Toddler
View All

Hats
Baseball Caps
Winter Hats
Visors
View All

Pens & Supplies
Pens
Paper Products
Stickers
View All

Fun Stuff
Stuffed Animals
Team Spirit Items
Frisbees
View All

Outerwear
Windbreakers
Polar Fleece
View All

Bags
Tote Bags
Athletics & Duffels
Backpacks
View All

The Custom Ink homepage features a detailed yet scan-able categorization of products.

24. Avoid fancy icons that need to be defined.

The customization process should be intuitive and straightforward. Fancy programming and unintuitive design for design's sake should be avoided. An example of an element that users routinely had trouble with was the clickable leaves on the [me] & goji website. Despite a pop-up message at the beginning of the process (Note: requiring such a message is the sure sign of a flawed design that must be changed), users still tried to click on the image of the ingredient instead of the leaves. The only reason for the leaves is to allow for the fancy drag-and-drop-into-the-bowl interaction that also caused trouble for users. The leaves and the message are a workaround caused by the inclusion of a technologically possible but highly unusable design element (i.e., the drag and drop).

The leaves on the [me] & goji website were not an intuitive link to more information and, thus, required messaging to tell users that they must click on them to get more information.

25. Utilize linear workflows to customize the product; avoid loosely defined steps.

One of the biggest mistakes Web designers can make is to design a customization workflow that more closely resembles a piece of power-user

software than a web-based application. The primary difference is that software, particularly design software, is less structured than a Web-based application that walks users through a process.[1] In our study, every user of the Custom Ink website experienced difficulty in designing a custom shirt. Because they are not guided along a linear process, users spent a great deal of time looking for basic features like how to center text, change fonts, resize text and, the most difficult, put text on the back of the shirt. For those who feel comfortable learning new software, this interface is fine, but for a person who needs to simply design a shirt for a family reunion or a child's soccer team, this can be far too frustrating.

Custom Ink's unstructured, wizard-free Design Lab caused much trouble for users in our study.

Users testing the Action Envelope site experienced little to no difficulty in completing the customization process. The wizard-like path through the customization ensured that users completed each step, provided all required information and knew the scope of possible customization without wondering if they missed something.

---

[1] For more on the ephemeral style of applications that are usually the best for embedding within websites, see our separate report from testing of Flash-based applications: http://www.nngroup.com/reports/flash/

The Action Envelope wizard-like customization process reduces task failure and task difficulty.

26. Include all required decisions to be embodied within the defined steps of the process to avoid error messaging.

In addition to creating a linear customization path, also make sure all definable elements are included in that path. Every user who created a custom cereal on the [me] & goji website got the same error message: "oops, you haven't named your cereal. Would you like to go back and name it?" If naming is part of the process, then it should be included in the workflow. Given the current disconnected design, expecting users to know that they must name their cereal is unrealistic. Ideally, this step should come either first or last in the process.

Naming the cereal is not included in the primary customization workflow and users did not notice the naming feature ("double click here to name"), so when users tried to checkout, they receive this error message above.

27. Group page elements and use layout prioritization to improve workflow efficiency and effectiveness.

When asked to create a cereal, users experienced significant issues with the [me] & goji website. There was only a 30% task success rate and users experienced between minor to moderate difficulty using the site. One of the primary issues with the interface is the lack of focus — there are too many elements fighting for the user's attention. While most users responded with enthusiasm to the concept, the interface quickly overshadowed any initial joy. The two most significant issues:

1. Process navigation elements (progress meter and next/previous buttons) are not working together. The progress meter, which lists the steps of the process and indicates where the user currently is within the process appears to be part of the global navigation (start, why, who, blog) and not related to the next/previous buttons. It is typical for these elements to either be located together and/or to frame the process content (process meter directly above process content and next/previous buttons directly below)

2. The ingredients are located in the middle of the page with descriptions above and the bowl below. It would be better for ingredients to be listed at the top with other information below instead of elements above and below that the user needs to toggle between.

The [me] & goji page layout lacks cohesiveness and focus.

28. Utilize standard process navigation.

Process navigation consists of two parts:

- Progress meter indicating degree of completion and/or step in the process
- Controls to move forward and backward (e.g., "next" and "previous")

It is important that these two elements work together in a cohesive fashion and that both are visible and not hidden below the virtual fold of the page. The progress meter serves two purposes: Before the user starts the process, it illustrates process complexity and, once the user is within the process, it shows how far the user has come and how many more steps before completion.

Additionally, the progress meter should be present on every page of the task flow, it should remain in a consistent location and the items within it should not change. A significant issue on the [me] & goji website is that it uses two progress meters — one for cereal configuration and another for the checkout process.

[me] & goji uses two very different progress meters in two different locations.

You can find examples of progress meters all over the web; Users are familiar with them, so designers should not deviate from the standard design.
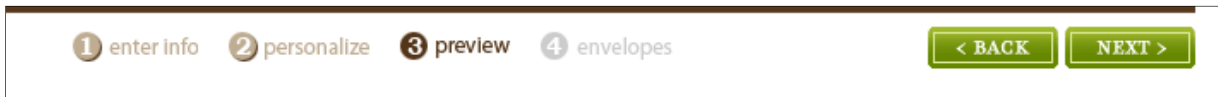
The Tiny Prints process navigation is a good example of a conventional and understandable design.

29. Support decision making by providing in-line help and definitions.

The customization process, at its core, is a series of decisions that must be made by the user. When designing the customization process, it is important to put yourself in the user's shoes to understand what decisions and terminology may require additional information. For example, on the Tiny Prints site, decisions such as paper type, envelopes and shipping options are accompanied by question mark icons that, when clicked, present more information. It is not sufficient to present all this information prior to the customization process or bury it in help or FAQs. Users tend not to read instructions thoroughly when preceding a process and hunting for information in help and FAQ sections can frustrate users to the point of abandonment.
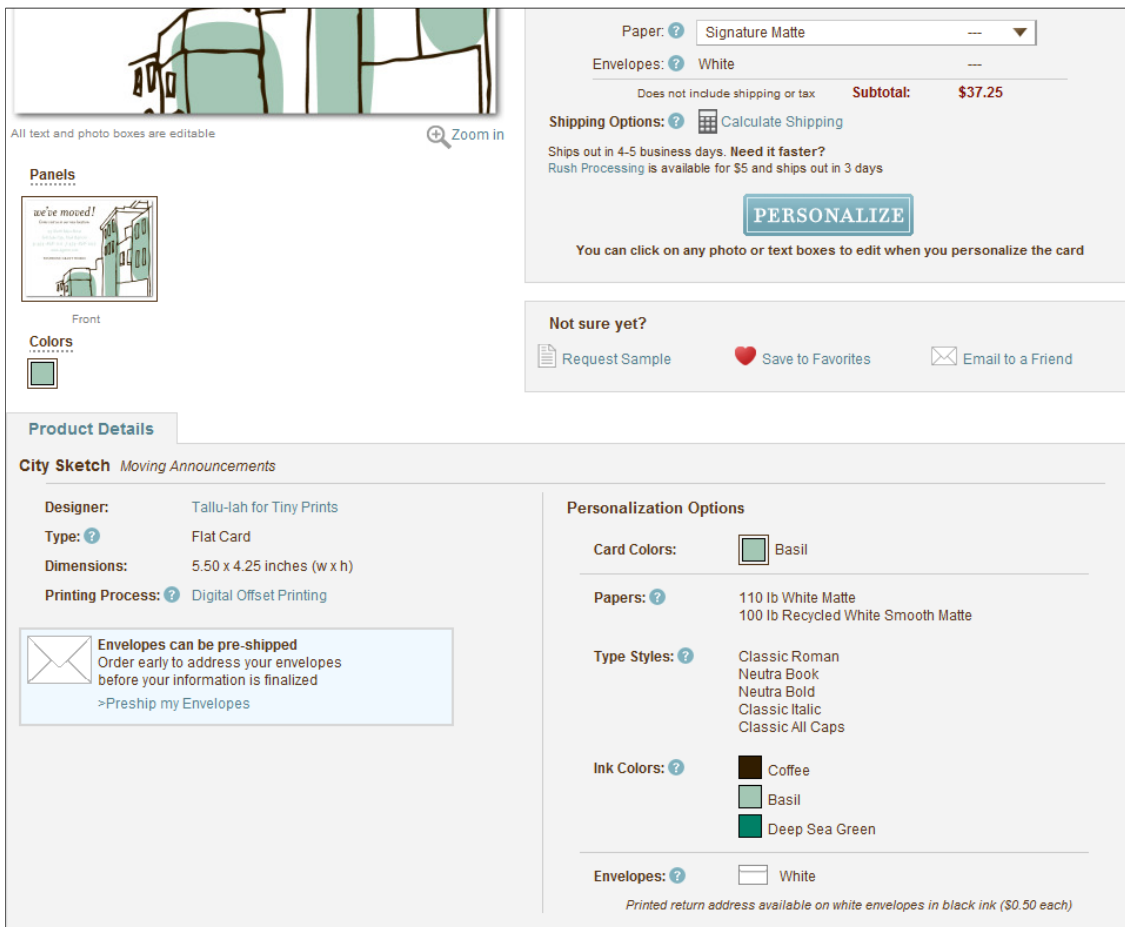
Tiny Prints uses clickable question mark icons to indicate there is more information.
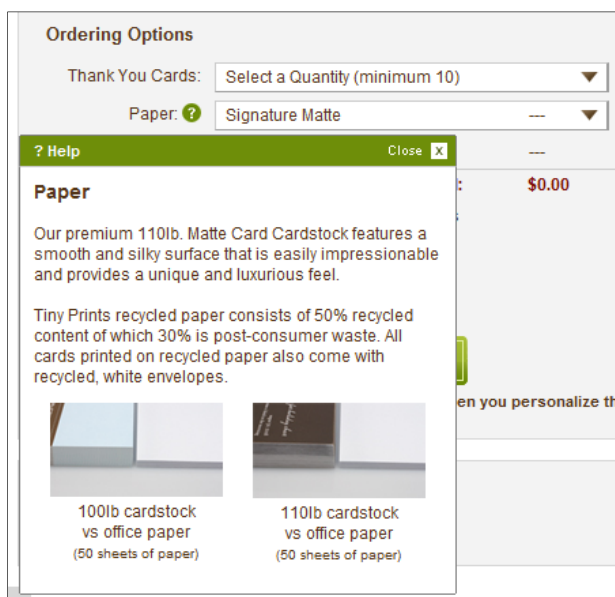
Clicking on the question mark icon launches a pop-up with more information so that users understand the scope of options as well as terminology such as "Offset Printing."

On the [me]&goji site, users need the additional information provided to properly evaluate ingredients. One significant flaw in this design is that the additional information includes marketing spin and ingredients, but no nutritional information. Users were frustrated:

- "I'm checking the ingredients to see if any of the flakes have sugar added to them. I'm having a hard time figuring out how much sugar is in each of them."

- "This is very cute, but if I don't know what I want…It's going to give me my nutritional content after I've made a choice and it will tell me how much protein, etc., but that's not going to help me make the decision. If I want to know beforehand…I don't see that I can actually get that information."

- "I feel like I should be able to click on the walnut and get the nutrition facts over here on the right."

- "The only way to find out carbs and protein is once you add them to the bowl, then you see your dietary need. So, I would have to click on every single one of them (add them to the bowl)."

Users can view additional information about individual ingredients, but were unhappy with the inability to get nutritional data on individual ingredients.

30. Provide context for choices.

In our study, every user that tested the Custom Ink site did the same thing: They wanted a larger text size than the default 1.00, but not knowing what the scale was; they would guess and type in anything from 5 to 10 which made the text too large for the shirt. Users then had to enter smaller and smaller numbers and decimals to get the text to be a reasonable size. Since the text size is an open field, instead of a pull-down menu with defined choices, there is no way for users to know what is too big versus big enough to be seen, but still fit on the shirt. In this case, defining the extremes within some sort of menu would reduce the amount of effort users have to invest in something as simple as resizing text. We recommend avoiding free-form fields for elements that have limits (especially numerical) because it places the onus on the user to determine the reasonable range of options.

Text size is adjustable via an open field which makes users work harder to determine reasonable sizes because there is no defined scale (e.g., text size 1 being the smallest and 3 being the largest)

31. Allow users to compare options, attributes and customizations.

The workflow and functionality needs to support the way in which users really make purchasing decisions. Rarely does a user know exactly what he wants, selects it, customizes and purchases. Often there are multiple products and customizations he is considering. A user-centered interface addresses the needs of true human decision making processes.

For example, with [me] & goji, it would be useful for users to compare ingredients based on nutritional content to select the ingredients that meet their nutritional needs. On Tiny Prints it would be useful to select potential card options and compare them and their attributes side-by-side — same with t-shirts, envelopes or any other item. One user commented, "I wish it gave me the 'you last looked at this item' like Amazon or the Gap. To let me compare with the open option."

Additionally, users should be able to create multiple customizations and compare those against each other to make a final decision.

32. Indicate consequences of choices.

In many customizations, there may be trade-offs. For example, if a user chooses offset printing versus digital printing it may increase production time and therefore push out delivery. It is important to make users aware of consequences and present alternatives — especially when it concerns price or delivery time.

33. Avoid multiple interface components that serve the same purpose.

Multiple ways to complete the same task can actually increase the amount of time required to complete a task. On the [me] & goji site, if the user has clicked on the goji leaves, the block above the ingredients includes a description of the ingredient along with an *Add* button. Additionally, there is a persistent bowl graphic at the bottom of every page with instructions to "drag and drop to add here." Adding ingredients to the cereal is the primary task of this customization, therefore there should be one standard way to add ingredients and it should be consistent on every page. The *Add* button in the ingredient detail block should be removed. One user, after using the site for over 15 minutes commented "Oh, you can just add them by clicking the add button there. I didn't see it." She didn't see it because it only appears when an ingredient detail is displayed.
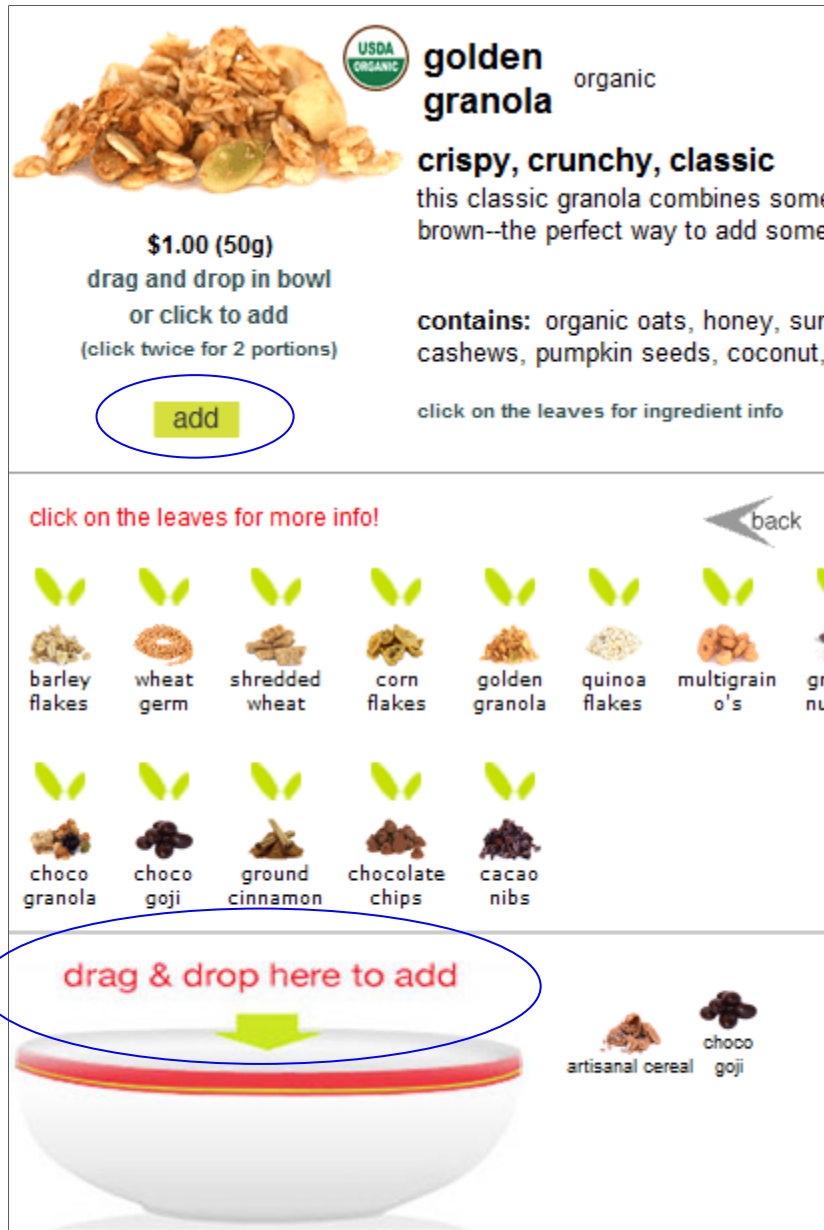
Multiple means to add ingredients confuse users.

34. Include a persistent on-page summary to track product customizations and price.

A persistent summary that tracks cost and other data in real-time helps users understand the impact of choices and make informed adjustments. This also helps the company because users are less likely to abandon the shopping cart if they are aware of the cost (and other aspects) through the entire process instead of being surprised on the checkout screen.

On the [me] & goji website, as users add ingredients they are added next to the bowl, the Nutrition Facts matrix is updated and the weight and price are updated. As well, the shipping price is persistently located below the cereal price and weight so there are no surprises.

Every page in the [me] & goji cereal configuration process includes a list of the currently selected ingredients as well as a nutrition facts tally.

In the Custom Ink Design Lab, there is no persistent quote, so users do not know, in real-time, how their decisions are impacting price. Instead, they must go to the quote section (and the three-step quote process) each time they want to see how a design change impacts price.
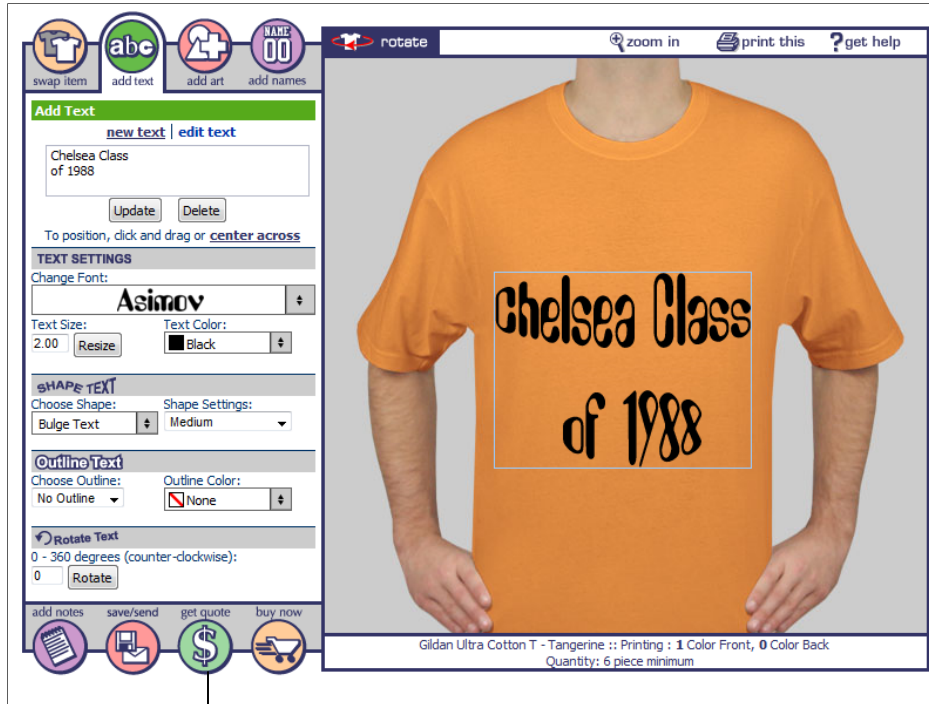
The Custom Ink Design Lab does not include a persistent on-page summary, instead requiring users to get a new quote each time they want to see how design changes impact price.

35. Avoid fancy interaction design if unnecessary.

In this study, drag and drop functionality was the source of great confusion and frustration. Normally, we recommend staying clear of this functionality for the sake of users with compromised motor skills. However, everyone we tested had trouble with this implementation, which can lead to lost sales and negative word of mouth.

One user figured out how it worked, but after several attempts to use it, expressed frustration and doubt, "I can't get the hang of the putting the stuff in the bowl thing. I keep clicking it wrong I think." There has to be on overwhelmingly convincing user-centered or business-centered reason for including drag and drop functionality instead of a standard Add this item button.

Users encountered considerable usability issues when utilizing the drag and drop function on the [me] & goji website.

36. Remove inapplicable data fields

If a user has not selected a particular option, it is important to remove detail fields that pertain to that option. Otherwise, they will waste time filling out information that is not applicable to their product.

On the Tiny Prints site, the fields to enter a return address are presented by default — whether or not the user checks the "Add a printed return address envelope" checkbox. Users entered their return address information without realizing that this was an additional charge. One user commented "I've completely blown my budget with the return address — now I understand the pricing."

Instead, users should be asked "Do you want pre-printed return address envelopes. Cost: $.50 each." If the users selects yes, then they should be asked for return address data.

Envelope Options

Envelope options are listed in the drop down menu below. Any additional cost, if applicable, is denoted on a per envelope basis.

What type of envelopes would you like with your order?

White
Free

You can order additional envelopes in case you make mistakes while addressing your cards.

Price: $0.20 per envelope
How many additional envelopes would you like to order? 0 ▾

Envelopes (25 envelopes @ $0.00) $0.00
Additional Envelopes (0 envelopes @ $0.20) $0.00
ENVELOPES SUB TOTAL: $0.00

Return Address Options

Printed Return Address
You can have your return address printed on your envelopes.

☐ **Add a Printed Return Address ($0.50 per envelope)**
Line 1:
Line 2:
Line 3:
Line 4:
Font: Classic All Caps ▾

Printed Return Address (0 @ $0.50) $0.00
RETURN ADDRESS SUB TOTAL: $0.00

Return address fields are present on the page even if the user does not check off the return envelope option.

37. Do not disable the browser back button.

Users turn to the browser back button far more than any designer would like to admit. Therefore, it's imperative that the design can support the use of the back button and not clear user data in the process. One very angry user exclaimed, "Why can't I go back to shopping? Son of a gun — I lost it all!"

38. Highlight editable fields.

Editing of options, text or designs is a key component of the customization process. However, often times, users missed these options unless they stumbled upon them by accident. One user who found the editing capability commented, "Nice touch. It keeps you in main screen, but you can still have full access over

the text and apply it right there instead of having to go through a whole new screen to do it."

One user who did not find the editing capability commented, "I've been to other websites where you can change any of the wording and you can see it right then." So, she expected it, but still did not find it.

On the Tiny Prints site, the user must either notice the fine print stating "You can click on any photo or text areas to edit on the next page" or she must roll over the preview to see the editable fields highlighted. This is unfortunate, because the users who did not find the editing capability ended up adding special requests in the notes section asking the Tiny Prints staff to make design and text changes to the cards — effectively negating much of the value of the web-based self-service customization.
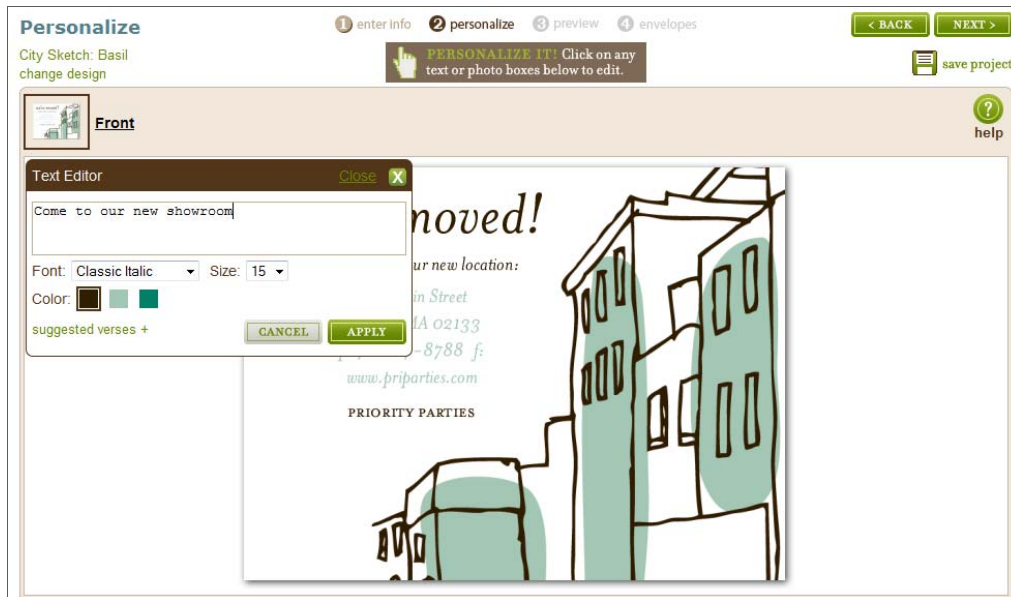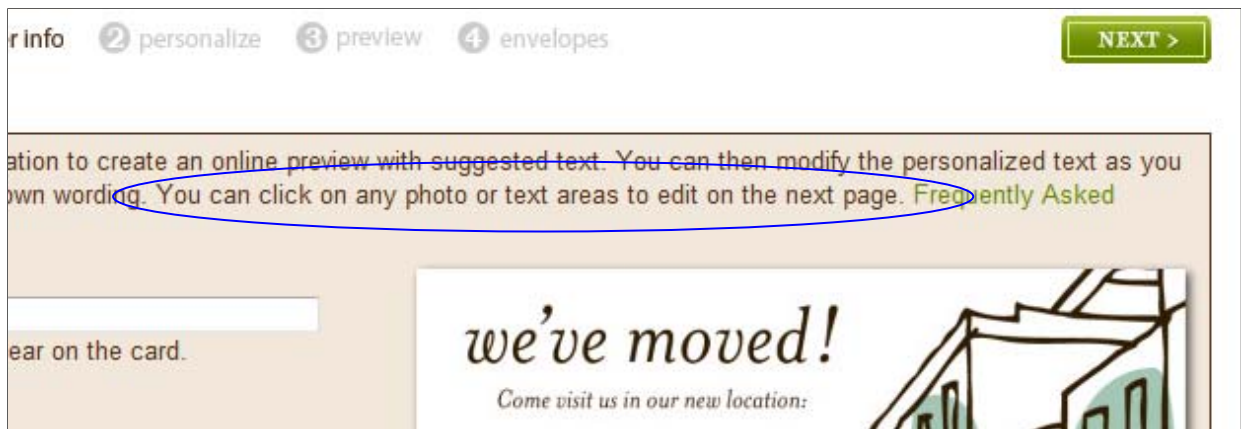
Some users of the Tiny Prints website did not realize that announcement text categories and images could be edited.

39. Provide an online proof.

Without an online proof (preview of the final item), users do not feel comfortable placing an order and it could negatively impact sales. At the checkout screen of Action Envelope, one user commented, "It didn't let me preview the envelope. I'd want to see what it looks like before I spend $98 on it." Another user commented, "The other thing that I like to see is a little proof. You never know when you'll make a typo."

Including a proof of the finished product assures customers that they have customized correctly and can feel better about placing the order.
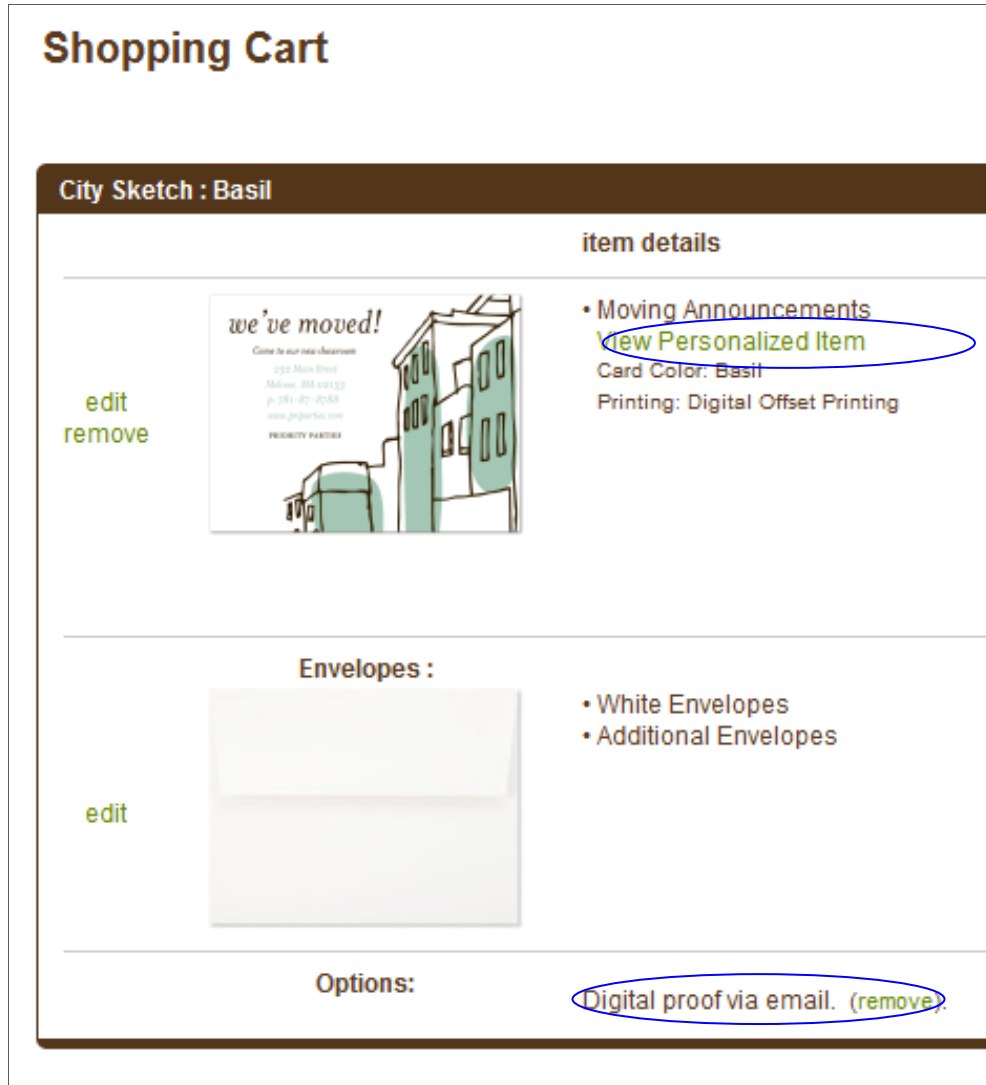
There is a link to see your item with the selected customizations as well as an option to receive a digital proof via e-mail.

40. Place pertinent information at the top of the page.

A basic rule of web usability is to place the most important information above lower priority information. When users click through to their shopping cart, they expect to see a summary of their order, but on the [me] & goji website, all they

saw was a message about green tag carbon-negative delivery which confused users. One said, "It's hard when this tag thing is up at the top because it's not obvious that check out is there [below]." Another commented, "Green tag to offset the carbon. OK. I didn't see that this was the actual shopping cart."

The purpose of this page is to summarize the user's order, but the delivery up-sell takes priority and pushes the shopping cart down the page. A better way to present this offer is to make it a selectable line item in the shopping cart. The other design option would be to include this delivery option on a separate page preceding the shopping cart, but make sure that the button users click to get there does not indicate that it is the shopping cart because that will cause more confusion.

Users were confused by the Green Tag delivery message, instead, expecting their shopping cart which they then noticed at the bottom of the page.

41. Make it easy for users to apply their customizations to multiple products and compare the results.

It's typical for users to want to evaluate products in the context of their customization. For example, a user may wonder if their design looks better on a green, blue or black t-shirt. Or a person may want to see which party invitation

looks best with their information. None of our testing sites provided this capability, but users expressed their desire for such functionality:

- "Now, this would be nice if it would automatically take the info I had already entered and brought it over."

- "I can't get it to recreate the text I had…which is aggravating."

Ideally, there should be a way to save content or design specifications so that they can be applied to other applicable products. Streamlining this process better matches how users want to customize online.

42. Allow users to invite others to review/approve their customization.

The reality of consumer and business purchases is that it often involves more than one party. For example, if a manager asks an employee to design and order envelopes, she would probably like to see a proof before the order is placed. If someone is designing a t-shirt for a reunion, he may want to share his design with co-planners before placing the order.

To meet this need, Custom Ink provides the "Send to Friends" feature that doesn't even require registering for an account or signing in. Not having to register for this functionality is a considerable user experience plus since users so dislike the requirement on other sites. As one user reacted to another site's registration request, "See, now this I hate. I would just leave now. I hate it when you're forced to create a password for a one-time order. It really frustrates me."

Custom Ink makes it easy to send your design to others for feedback.

43. Provide functionality for user to complete more than one customized product per order.

In some instances, users will normally place orders for multiple customized products. For example, an office manager ordering multiple sizes of envelopes and a mother ordering customized thank you cards for all of her children. If this is a likely scenario for your users, be sure to design the site in a way that allows users to complete a product, place it in their shopping cart and continue shopping/customizing. In the case of Action Envelope, they took it one step further and provide an express interface to streamline the process of placing multiple orders.

The Express option on Action Envelope allows users to place multiple orders at a time.

44. Prior to starting the process, disclose delivery dates.

There is no point in customizing a product if it can't be delivered by the time you need it. Therefore, we recommend that the next available delivery dates be displayed at the beginning of the customization process so there are no surprises on the checkout screen. Custom Ink actually lists the next free and rush delivery dates on their homepage.

Custom Ink clearly states the expected delivery dates before the user picks a product. This works because all products have the same delivery time frame. On sites where different products require different manufacturing lead times, dates may be listed on the initial product pages (i.e., before customization has been initiated) instead.

45. Help users choose products and design within a budget.

When we asked users to design a moving announcement with a budget of $600 for 500 pieces, several of the users started doing the math in their head and determined they could spend no more than $1.20 per card. They then looked through the possible matches to find one within their price range. As well, they were able to confirm that cards were within their budget on the page prior to customizing via a pull-down menu detailing the "per piece" and total price at different quantities. These are both useful features, but it would be even more useful if users could specify a total budget, quantity and type of event and receive possible matches based upon that information.

We recommend considering various starting points to help users find the products that best meet their criteria — especially budget limits.

Narrow Your Search

101 Items Found | Select below to narrow search

expand all filters | collapse all filters

reset all filter selections

Paper Type
- ☐ Signature Matte White (99)
- ☐ Signature Textured Ecru (2)
- ☐ Recycled Cardstock (29)

clear selections

Card Type
- ☐ Flat (97)
- ☐ Folded (4)

clear selections

Card Size
- ☐ 4.00 x 9.25 (4)
- ☐ 4.10 x 5.25 (17)
- ☐ 5.00 x 7.00 (43)
- ☐ 5.25 x 5.25 (3)
- ☐ 5.25 x 4.10 (15)
- ☐ 7.00 x 5.00 (16)
- ☐ 9.25 x 4.00 (3)

clear selections

Price
- ☐ $ (43)
- ☐ $$ (58)
- ☐ $$$ (0)
- ☐ $$$$ (0)

clear selections

Number of Cover Photos
- ☐ 0 Photos (95)
- ☐ 1 Photos (6)
- ☐ 2 Photos (0)
- ☐ 3+ Photos (0)

clear selections
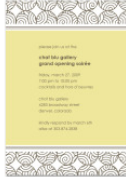
Designers
- ☐ Ann Kelle (9)
- ☐ DwellStudio (2)

Browsing 101 Items

Sort By: Best Sellers ▾   Item Per Page: 24 ▾   View All ◀ 1 2 3 4 5 ▶

Ticket Stub
5.00 x 7.00 Flat
As low as $1.14

MORE COLORS
Swirling Circles
5.00 x 7.00 Flat
As low as $1.14
available on RECYCLED

Corporate Waves
5.00 x 7.00 Flat
As low as $1.14
available on RECYCLED

Mark Your Calendar
5.00 x 7.00 Flat
As low as $1.14
available on RECYCLED

Three Aces
7.00 x 5.00 Flat
As low as $1.14

MORE COLORS
Dinner Setting
7.00 x 5.00 Flat
As low as $1.14

Client Cruise
7.00 x 5.00 Flat
As low as $1.14
available on RECYCLED

Seashell Collection
5.00 x 7.00 Flat
As low as $1.14
available on RECYCLED

Masquerade Ball
5.00 x 7.00 Flat
As low as $1.14

Vibrant Starburst
5.00 x 7.00 Flat
As low as $1.14

MORE COLORS
Clean Lines
5.00 x 7.00 Flat
As low as $1.14

MORE COLORS
Bold Brackets
7.00 x 5.00 Flat
As low as $1.14

Users can filter by relative price level and scan the page for "As Low As" pricing information, but they are not yet able to specify a budget, quantity and event type to narrow down options.

The pull-down menu on the details screen tells users how much items cost at different quantities. It is useful to state both the total charge and the per-item price to save users from having to do the math.

46. Offer varying levels of customization.

Users vary in their desire to create custom products — some like the idea of creating something new and unique from scratch, while others are satisfied with minor customizations like changing one ingredient of a pre-mixed cereal. To gain a larger market share, consider adding various levels of customization to satisfy different types of users. It is always easier to modify an existing template instead of having to make up everything.

[me] & goji features favorite mixes created by the company founders. Users can select these "as is" or customize the ingredients.

Methodology

This report features the results of one usability study. For this study, we used the Thinking Aloud methodology: We gave participants tasks to perform on websites and asked them to think aloud as they attempted each task. A facilitator sat next to the participant and observed, listened, and took notes. Users commented on:

- What they were looking for or reading

- What they liked or didn't like about the site

- What made it easy or difficult for them to accomplish their tasks

At the end of each session, users answered a questionnaire and discussed their experience with the facilitator. Each session was scheduled for 75 minutes. Participants used a PC (with the screen set at 1024x768) and a high-speed Internet connection.

PARTICIPANTS

A total of 24 people (12 women and 12 men) participated in this study. We conducted the tests in Boston. All but one participant had been using the Internet on a regular basis for at least five years. We selected users who partook in at least one of the following web-based activities:

- E-mail

- Photo-sharing

- Video viewing/sharing

- Social networking

- Wish list creation/management

- Reading the news

We screened out "technical experts" such as IT personnel, programmers, or Web or software designers because they are expert Web users and generally aren't the target users for the sites we tested.

Following is a partial list of participants' occupations:

- Alumni programs director

- Attorney

- Call center supervisor

- College professor

- Dangerous goods specialist

- Fundraising director

- Grant manager

- Production assistant

- Psychotherapist

- Real estate agent

- Sign language interpreter
- Vent manager

WEBSITE SELECTION

We studied 26 different websites, 7 of which included some sort of customization. This allowed us to compare users' success and experience on sites with and without customization.

The 19 non-customization sites were: Amazon.com, Apple, Citizens Bank, Costco, Debate Graph, *Epicurious* Magazine, Etsy, Flickr, Food Network, Got Milk? (California Milk Processor Board campaign site), The Health Connector, Lighting Universe, L.L.Bean, Massachusetts State Government, Mayo Clinic, San Diego Zoo, Sears, U.S. Food and Drug Administration, and the *Wall St. Journal*. These sites were tested with representative tasks for their respective target audiences. For example, one of the tasks was: "You want to buy a piece of jewelry for your friend for her birthday. She likes pendants and is fond of floral patterns. Find an enamel pendant on etsy.com that she would like."

WEBSITE ORDER

We tested each customization site between four and six times. Each study participant was expected to interact with two customization websites (although some were not capable of testing both due to time constraints). We rotated the order of the site usage to ensure that all the customization sites were tested at least four times and that users were exposed to them at the beginning, middle or end of their sessions.

WEBSITES AND TASKS

The following tasks were utilized to test customization-related websites:

Interface Customization

iGoogle www.google.com/ig
- Set up an iGoogle page to match your preferences.
- Add a to-do list feature to your iGoogle page.
- Put one of your personal page gadgets at the top of your page.
- Remove one of your gadgets from your iGoogle page.
- Make your own photos available on your iGoogle page.

My Yahoo! my.yahoo.com
- Set up a My Yahoo! page to match your preferences.
- Add a to-do list feature to your My Yahoo! page.
- Put one of your personal page gadgets at the top of your page.
- Take one of your gadgets off your page.
- Add a feature that posts daily pictures of cats.

Pageflakes www.Pageflakes.com
- Set up a Pageflakes page to match your preferences.

- Add a to-do list feature to your Pageflakes page.

- Put one of your personal page gadgets at the top of your page.

- Take one of your gadgets off your page.

- Include Twitter updates on your Pageflakes page.

Product Customization

Action Envelope www.actionenvelope.com

Your company needs professionally printed envelopes for your proposals and invoices. Design and price out two options.

Custom Ink www.customink.com

You are planning a family reunion this year and want to design custom commemorative t-shirts for the event. You expect 60 attendees (20 children, 40 adults). Your budget is $500. Design a shirt appropriate for both adults and children that will meet the budget requirements.

Me and Goji www.menadgoji.com

You have decided that you need to eat healthier this year. Design a cereal that is low in carbohydrates and high in protein.

Tiny Prints www.tinyprints.com

Your business is moving and you need to have announcements printed. You need 500 pieces and your budget is $600. Design an announcement at www.tinyprints.com.

SURVEY QUESTIONNAIRE

We gave users a written questionnaire about each site after they'd tested it.

Users were asked to answer and discuss the following questions on a scale from one (poor) to seven (good):

- Do you feel **satisfied** with this website?

- While using the website, did you feel **lost or confused**?

- While using the website, did you feel like you were **in control and in command** of it?

List of Guidelines

About the Authors

Jen Cardello is a User Experience Specialist with Nielsen Norman Group. Since 1996, Cardello has specialized in user-centered and business-focused website strategy, expert reviews, competitive analysis and information architecture. She previously led customer experience consulting practices at Gomez Advisors, Watchfire and Keynote Systems where she advised clients in sectors including financial services, telecommunications and lodging. During this time she also developed hundreds of user experience criteria for the Keynote Scorecards that benchmark dozens of financial services websites including banks, brokerages, lenders, and insurance carriers. As principal of her private practice, Cardello worked with clients in transportation, financial services, publishing, and education to define user and usage-centered web strategies and architectures. Cardello holds a BFA in Architecture from the Massachusetts College of Art and Design.

Jakob Nielsen, Ph.D. is principal of Nielsen Norman Group. He is the founder of the "discount usability engineering" movement, which emphasizes fast and efficient methods for improving the quality of user interfaces. Nielsen, noted as "the world's leading expert on Web usability" by *U.S. News and World Report* and "the next best thing to a true time machine" by *USA Today*, is the author of the best-selling book *Designing Web Usability: The Practice of Simplicity* (2000), which has sold more than a quarter of a million copies in 22 languages. His other books include: *Hypertext and Hypermedia* (1990), *Usability Engineering* (1993), *Usability Inspection Methods* (1994), *International User Interfaces* (1996), *Homepage Usability: 50 Websites Deconstructed* (2001), *Prioritizing Web Usability* (2006), and *Eyetracking Web Usability* (2010). Nielsen's [Alertbox] column on Web usability has been published on the Internet since 1995 and currently has about 200,000 readers. From 1994 to 1998, Nielsen was a Sun Microsystems Distinguished Engineer. His previous affiliations include Bell Communications Research, the Technical University of Denmark, and the IBM User Interface Institute.

About NN/g

A Leading Voice In The Field of User Experience Since 1998

- **Conducting groundbreaking research.** Every week, somewhere around the globe, NN/g team members are conducting user experience research. Our experts are experienced at executing dozens of research methodologies. We know when and how to apply each one, resulting in trusted insights that inform everything we do.

- **Evaluating interfaces of all shapes and sizes.** We've tested thousands of different user interface designs over the years. Every year we evaluate hundreds of interfaces, adding to our collective understanding of design and user behavior. Our experts work with users, interfaces and organizations from all over the world, widening our collective understanding.

- **Insights with more depth.** We don't have a narrow focus. Our observations are the result of the cumulative findings across a large volume and variety of circumstances, making them highly valid and comprehensive. For everything we publish, we combine our collective knowledge of longstanding patterns with any new findings we uncover from our targeted research studies. This allows us to interpret observations through the lens of the dozens of similar things we've seen before to conclude their importance and validity. So this report is based not only on our most recent research on the topic, but more than 20 years of UX knowledge.

OUR EXPERTS DO IT ALL

Our experts are researchers, educators, and UX Design practitioners all in one. Everything we do informs the 3 pillars of our business, research, training, and consulting.

- **Research** — Every person on our team conducts research. We tackle every topic in UX from the most evergreen challenges like information architecture to the most recent and emerging trends.

- **Training** — Our UX Conference training events take place in cities around the world.

Attendees learn from NN/g experts and invited industry peers, leaving with practical skills that can be applied immediately.

With more than 40 courses available, there's something for everyone. Courses are taught in areas such as: research practices, design processes, working with stakeholder and product teams, among other things.

- **Certification** — Our certification program helps UX professionals quickly gain skills and credibility. By taking 5 courses and passing related exams, practitioners earn NN/g UX certification and badge, a recognized credential in the industry.

- **In-house Training** — Many of our courses can be taught at your location and customized to fit your unique needs. In-house training is ideal for teams that want to spread user experience perspective throughout a large group and those working on large projects that need to kick start the creative process and head in the right direction.

- **Consulting** — Our experts are available for custom consulting. Our services include but are not limited to:

  - **Design Reviews and Competitive Analysis** (starting at $38,000 USD)

  - **Usability testing** (starting at $20,000)

  - **Benchmarking** (starting at $45,000)

PUBLICATIONS AND CONTENT

Over the years, our experts have developed a comprehensive body of knowledge and UX resources. We've taken the results of our decades of research and distilled it down into actionable guidelines, best practices and proven methodologies.

Articles and Videos

Over the years, we have created one of largest and most comprehensive sources of free user experience content and research insights.

- **Articles** — Each week we publish new articles on current UX topics available to practitioners around the world at no cost.

- **Videos** — In addition to our free articles, we produce a variety of short topical UX videos posted to our YouTube channel weekly.

Reports

Our research library contains more than 60 published reports and books addressing a variety of topics including but not limited to the following:

- Doing UX in Agile Environments

- UX Design for specific audiences (e.g., children, college students, seniors, people with disabilities)

- Information Architecture

- B2B Websites

- Corporate Websites

- Ecommerce UX Design

- Marketing Email and Newsletters

- Intranets

- Non-Profit Websites

- University Website

Shop for reports at https://www.nngroup.com/reports.

Our Free Newsletter

Nielsen Norman Group's Weekly Newsletter includes summaries of our latest research and insights published each week. Subscribe at https://www.nngroup.com/articles/subscribe.