Simplifying Complexity, Part 4: Visual Simplicity

This article will look at visual simplicity. Visually, the Google search page, the portal for many to the web, is about as simple as a user interface gets.



Compare the Google's UI to Craiglist. The obvious difference is that the Craigslist UI is visually busier, more cluttered, more complicated.

craigslist		seattle	e-tacon	na ^w see	est sno kit tao	c oly skc	english	
post to classifieds							nearby cl	
	C	community			ousing	jobs	bellingham	
my account	activities	local new	VS	apts / housing	3	accounting+finance	bend	
	artists	lost+four	nd	housing swap		admin / office	comox valley	
search craigslist	childcare	musician	IS	housing want	ed	arch / engineering	corvallis	
search	classes pets			office / comm	ercial	art / media / design	east oregon eugene	
	events	politics		parking / stor	age	biotech / science	fraser valley	
event calendar	general	rideshare	are	real estate for sale		business / mgmt	kamloops	
SMTWTFS	groups	groups volunteers		rooms / share	d	customer service	kelowna	
17 18 19 20 21 22 23				rooms wanted		education	klamath falls	
24 25 26 27 28 29 30	p	ersonals		sublets / temporary		food / bev / hosp	kootenays	
31 1 2 3 4 5 6	strictly pla	strictly platonic			ls	general labor	lewiston	
	women seek women					government	medford	
7 8 9 10 11 12 13	women seeking men			for sale		human resources	moses lake nanaimo	
	men seeking women			antiques	farm+garden	internet engineers	olympic pen oregon coast	
help, fag, abuse, legal	men seeking men		appliances	free	legal / paralegal			
	misc roma			arts+crafts	furniture	manufacturing	portland	
avoid scams & fraud	casual end			atv/utv/sno	garage sale	marketing / pr / ad	pullman-moscow	
personal safety tips	missed co			auto parts	general	medical / health	roseburg	
terms of use	rants and			baby+kid	heavy equip	nonprofit sector	salem	
	inditio di d	aree .		barter	household	real estate	skagit	
privacy policy	discu	ssion for	rums	beauty+hlth	jewelry	retail / wholesale	spokane sunshine coast	
system status				bikes	materials	sales / biz dev	tri-cities	
	apple arts	help history	photo p.o.c.	boats	motorcycles	salon / spa / fitness	vancouver	
	atheist	housing	p.o.c. politics	books	music instr	security	victoria	
about craigslist	autos	iobs	ponucs	business	photo+video	skilled trade / craft	wenatchee	
craigslist is hiring in sf	beauty	iokes	queer	cars+trucks	rvs+camp	software / qa / dba	whistler	
craigslist open source	bikes	kink	recover	cds/dvd/vhs	sporting	systems / network	yakima	
•	celebs	legal	religion	cell phones	tickets	technical support	us cities	
craigslist blog	comp	linux	romance	clothes+acc	tools	transport	us states	
best-of-craigslist	crafts	m4m	science	collectibles	tovs+games	tv / film / video	canada	

This is somewhat ironic, because vast complexity resides behind Google's search box. Google predicts your typing, interprets your query, and using information gathered by its web crawlers, processed by its indexer, and filtered for spam, serves up a series of links, ranked by relevance to your search, all within a fraction of a second.¹ Craigslist, on the other hand, is an elaborate collection of hyperlinks that is not nearly as complex behind the scenes.

Complexity behind the scenes doesn't need to translate to a complex UI. The <u>previous article</u> in this series looked at the overall organization of an application or web site. In this article, we'll look at the design of the pages or screens themselves, and ways that user interface designers can move pages or screens closer to a Google level of simplicity.

Does It Seem Simple?

In many ways, simplicity is largely perception. Proxies such as mouse clicks or time required to accomplish a task may give one an idea of how simple an interface is, but you can't directly measure simplicity; instead, people subjectively evaluate simplicity and know it when they see it.

First impressions matter. If a UI is visually simple, people will be inclined to think it is simple, and are likely to approach it more optimistically. Instead of being initially discouraged, they think, "This won't be so hard." To the uninitiated, Craigslist can initially be visually intimidating. Google, on the other hand, communicates simplicity, and is much more inviting.

What makes an interface look simple?

- Google obviously relies on use of white space and minimized visual noise. Craigslist, on the other hand, is visually very busy.
- Important information should be placed where we are most likely to first look. Google places the key UI element, the search box, front and center. Google also places the most relevant search results at the top of the list, as discussed in <u>Part 3</u>. In a similar way, web site designers place the most important information "above the fold," meaning at the top of the page, above the region that is hidden until the viewer scrolls. Compare what's at the top of an Amazon.com page to what's at the bottom. What is most important?

amazon	All 👻					Q	Get I	Ready	/ for S	Summer >
Shop by Department -	Your Amazon.com	Today's Deals	Gift Cards	Sell	Help		Hello. Sign in Your Account ⊸	Try Prime →	Wish List -	V Cart -

¹ http://www.googleguide.com/experienced_users.html, 19 May 2015

	Make Mone	y with Us	Amazon Pa	ayment Products	Let Us Help You		
Careers Sell on Amazon			Amazon.co	m Rewards Visa Card	Your Account		
estor Relations Sell Your Services on Amazon			Amazon.co	m Store Card		Shipping Rates & Policies	
ress Releases Sell Your Apps on Amazon			Amazon.co	m Corporate Credit Line	Amazon Prime		
mazon and Our Planet Become an Affiliate			Shop with F	Points	Returns & Replacements		
Amazon in the Community Advertise Your Products			Credit Card	Marketplace	Manage Your Content and Device		
Amazon Devices Self-Publish		with Us	Amazon Cu	rrency Converter	Help		
	Become an /	Amazon Vendor					
	> See all						
		ar	nazon.com				
	Australia Brazil Cana	ida China France German	y India Italy Japan N	fexico Netherlands Spain	United Kingdom		
6pm Score deals on fashion brands	AbeBooks Rare Books & Textbooks	ACX Audiobook Publishing Made Easy	AfterSchool.com Kids' Sports, Outdoor & Dance Gear	Alexa Actionable Analytics for the Web	Amazon Business Everything For Your Business	AmazonFresh Groceries & More Right To Your Door	
Amazon Local Great Local Deals	Amazon Home Services Handpicked Pros Happiness Guarantee	Amazon Web Services Scalable Cloud Computing Services	Audible Download Audio Books	BeautyBar.com Prestige Beauty Delivered	Book Depository Books With Free Delivery Worldwide	Casa.com Kitchen, Storage & Everything Home	
in Your City			DPReview	East Dane	Fabric	Goodreads	
in Your City ComiXology Thousands of Digital Comics	CreateSpace Indie Print Publishing Made Easy	Diapers.com Everything But The Baby	Digital Photography	Designer Men's Fashion	Sewing, Quilting & Knitting	Book reviews & recommendations	
ComiXology Thousands of	Indie Print Publishing	Everything	Digital	Designer Men's	Sewing, Quilting	Book reviews	

- Important information can also be emphasized by design. Information in a contrasting color, that is bolded, or that is in a larger font stands out and attracts the eye. Craigslist does this by shading headings such as *community* and *personals*.
- Follow conventions, so information appears where users expect to find it. Login/logout links are typically in upper right. Clicking on your name, also typically in the upper right, lets you access your account. Shopping cart icons are also generally in the upper right as well, as is the search box. Tabs (or similar navigation links) are often across the top. Many sites follow these conventions; note, for example, how similar the layout of E*TRADE's banner is to Amazon's banner (above).



Google even uses humor. The image on their search page, known as the Doodle, changes and is frequently topical or amusing, and may even be an Easter egg leading to a game. While this doesn't necessarily contribute to simplicity, it does make the UI a little more inviting and fun. This Doodle, for example, was in celebration of Jim Henson's 75th birthday.²

² https://www.google.com/doodles?q=interactive, 21 May 2015



Hiding Complexity

UI designers can also manage complexity by hiding information that users do not need to see. You probably have several pages open in your Web browser right now, and the browser tabs help you organize your workspace and hide pages you don't need to see at the moment. Note that Craigslist doesn't make much of an attempt to hide complexity: there are many links visible on the page. One could image an alternative interface with tabs for community, personals, housing, etc., and a much cleaner interface.

There are other ways to hide complexity:

• Pop-ups are a common technique, and are often used to define terms. Colored text or an unobtrusive dotted underline indicates that a definition is just a click or mouse hover away, *if you would like to see it*. That's the key: the definition is hidden from the uninterested. Here's an example from an online course.



An accordion is a user interface widget that is functionally similar to tabs (clicking on an accordion heading expands a section and often collapses other sections). Adobe Lightroom uses accordions to organize the picture editing controls. The accordion provides an additional benefit, as the order of the groups matches the order in which the edits should be performed in each module (a sequential organization, just like the tabs across the top of the Lightroom interface, as discussed in Part 3).



- Entire content areas can be collapsed. YouTube comments are an example of this; they are normally hidden because most users just want to watch the video.
- Wizards hide complexity by breaking a task into steps and showing those steps one at a time as they sequentially guide users through the entire task. Here is an example from the file manager Directory Opus. Note that wizards also provide the opportunity to document and explain the process, further simplifying for the user.

🗞 Backup and Restore Configu	ration - Directory Opus
	Backup and Restore Configuration Welcome to the Directory Opus Backup and Restore Configuration Wizardi This tool lets you backup and restore your complete Directory Opus configuration. Use this tool when you want to move your Directory Opus installation to a new machine, or if you just want to keep a copy of your configuration for safety. You can also use this tool to restore a previously backed yous. @ Backup configuration @ Backup configuration @ Egtore configuration @ Egtore to USB Flash Drive
	< Back Next > Cancel

There Are Limits

Sometimes interfaces remain inscrutable. This example is from the music player foobar2000, which is a plug-in for generating playlists. After a few minutes of looking at this UI, many will just give up.

Random pool Name: Album Changer					
Group %album%	*	Limit (0 = no limit) Number of tracks to add: Number of minutes to add: Number of MBs to add:	0 0 0 0		
Determine probability for picking groups based on group size Number of groups to add: Filter		Limit after sorting			
NOT ((%Genre% IS Christmas) OR (%Genre% IS Spoken))	*	%path_sort%			*
Filter with the content of the target playlist		Sort / limit each group			
Priority: 10 0 = don't consider this pool, when adding items from a	pools			ОК	Cancel

Why does this dialog box seem so complex? Most obviously, it does not leverage a mental model. I am making a smart playlist, and I may have an expectation of how that process should work. Based on that expectation, I can make the assumption that the Filter determines what is in the playlist and the Sort determines the order of the playlist, but I do not know what I am grouping. Worse, Group is in the upper left and is thus most prominent (because that's the origination point when we start to read). So the first thing the user likely sees is the most confusing element. Finally, I apparently need to master some sort of syntax to specify grouping, filtering, and sorting and I don't know that syntax, which adds to the cognitive load.

As we conclude this series with this example, it provides a good opportunity to again emphasize the importance of mental models. Your UI should be based on an established mental model, such as task-specific model (Adobe Lightroom) or a convention-based model (your UI follows established conventions that users are familiar with). Your organizational and navigational scheme follows from this model, and your visual design further removes complexity. That's the path to simplifying complexity.

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