Basics of visual interface design

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Goals of this session

- Explore issues that pertain to communication design and visual interface design
- Become familiar with the language and terminology of design
- Understand how issues come together to form a larger design process

Agenda

- What is design?
- What is communication design?
- Typography and communication design
- Color and communication design
- Design composition, layout and systems
- What is interface design?
- Navigation
- Graphic systems
- Wrap-up

What is design?

What is design?

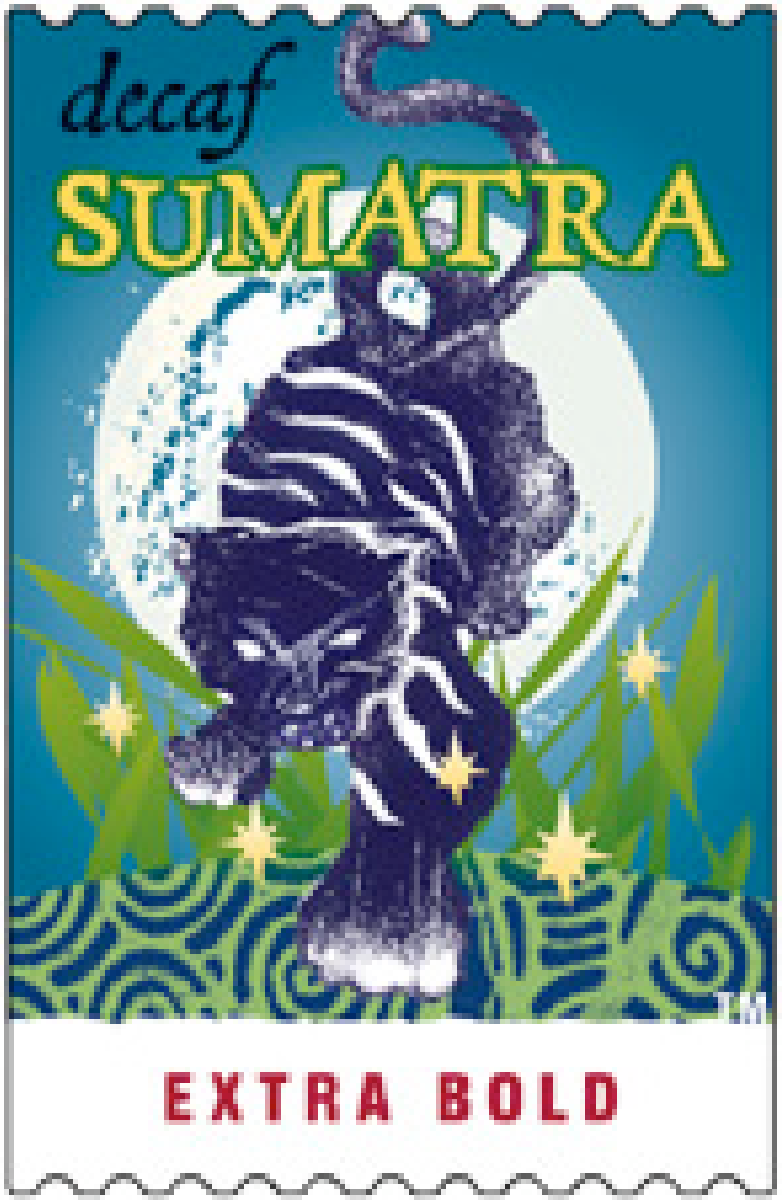
Everyone designs who devises courses of action aimed at changing existing situations into preferred ones.

--Herb Simon

Design is the human power to conceive, plan, and realize products that serve human beings in the accomplishment of any individual or collective purpose.

--Richard Buchanan


pinklily.com.au


decaf
SUMATRA
EXTRA BOLD

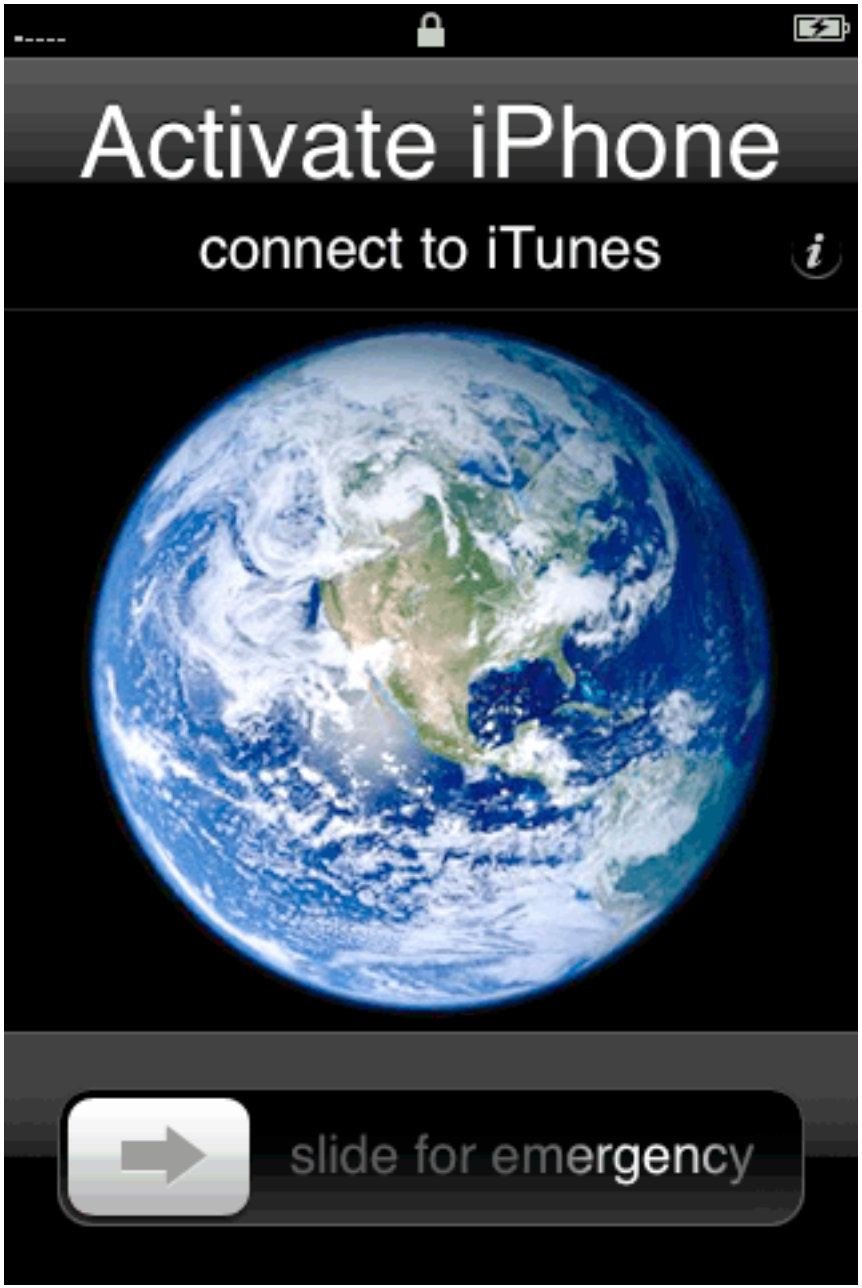
What is interaction design?

Interaction Design is the creation of a dialogue between a person and a product, service or system. This dialogue is usually found in the world of behavior, and deals with issues such as experience, time, complexity and emotion.

--Jon Kolko

Interaction design is the art of facilitating or instigating interactions between humans (or their agents), mediated by products.

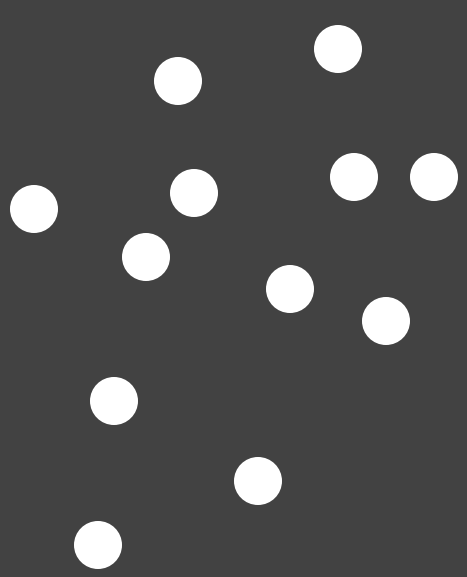
--Dan Saffer

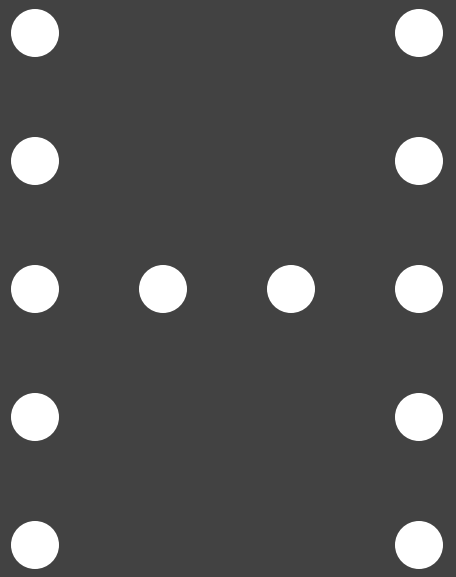

Activate iPhone
connect to iTunes
slide for emergency

Communication design

What is communication design?

Designers work conceptually, combining words, pictures, and other graphic elements to form a communicative gestalt.





What is communication design?

Designers work with a specific audience in mind, and create an artifact that best suits the needs of that audience.

Designs connect client/company to the user through their experience with the product.

What is communication design?

Phone Book

Pierce Frank E 313 ScottLn Venta --- 724 941-1611
Pierce Frank E 326 StonebrookeDr
McMury-- 724 941-7452
Pierce G J 2046 RedroseAv ---------- 884-3950
Pierce G T 1370 WashngtnRd MtLebnn --- 531-8654
Pierce Gary R 112 FredrckDr LwrBurl 724 335-8154
Pierce Geo A 621 ShadysideDr WMfln ---- 466-7634
Pierce Geo V 443 Library Brdk ---------- 351-8390
Pierce Gloria J HighlndAvExt
Burgtstwn-- 724 947-4627
Pierce Greg 3312 Ward ---------- 682-2338
Pierce Gregory M 205 4Av Brdk -------- 271-3579
Pierce H M 1357 FoxwdDr Mnrovl ------- 372-8864
Pierce H N 241 OakLakeRd
NwKnsngtn-- 724 339-1665
Pierce Harold E 1927 NoblstwnRd ------ 922-4731
Pierce Harold J 259 EvergladeDr PenHls - 795-4820
Pierce Harry 2604 High NtrnaHts --- 724 226-1420
Pierce Harry ins 206 E 6Av Trtm ---- 724 226-0659
Pierce Harry J III 1838 ParklineDr ------- 886-9749
Pierce Heather J 606 DellaDr NVersls --- 823-7156
Pierce Henry 362 OhiopyleDr PlumBoro -- 795-9898
Pierce Henry W 316 AkronAv MtLebnn --- 343-0529
Pierce Herbert Jr OakLakeRd
NwKnsngtn-- 724 339-2561
Pierce Homer Sr 16 ShinHill Smith -- 724 947-5898
Pierce J 2818 B LibrtyBoro ---------- 678-8250
Pierce J 509 JonthnCt Okdl ---------- 809-0705
Pierce J Fred 494 NewTexasRd PlumBoro 795-6427
Pierce J G 1370 WashngtnRd MtLebnn --- 531-8654

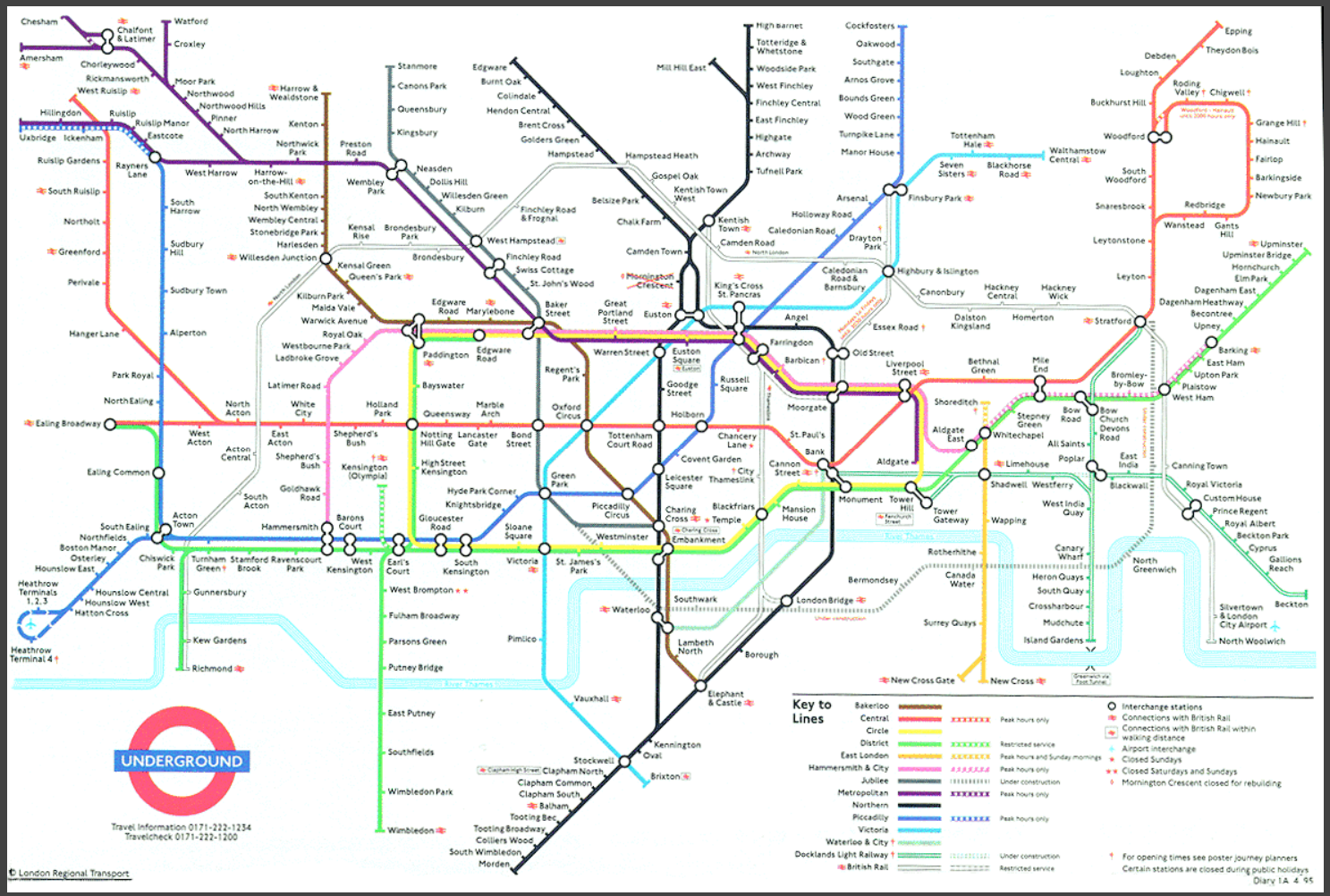
1193 PIECKA—PIERNO

63966 © BELL ATLANTIC

Pierce R M 1714 PennAv ---------- 242-9022
Pierce Randy 3908 BarbaraAnnDr Mnrovl - 373-4068
Pierce Randy 955 RoupAv Brcknrdg - 724 224-1637
Pierce Randy W 526 MtVernonDr ------- 822-8121
Pierce Raymond L 397 VillageRd ------- 928-0883
Pierce Rex 555 RidgeAv EPgh ---------- 825-0197
Pierce Richd 23 Haldane Crftn --------- 937-0173
Pierce Richd SunysdeHollow Monnghla -- 384-3273
Pierce Richd C 2305 MorrowRd --------- 854-1090
Pierce Robt 106 Berry ---------- 928-0232
Pierce Robt 611 VermontAv Glasprt ----- 664-9197
Pierce Robt J 295 YosmteDr PenHls ----- 793-0705
Pierce Robt W 180 BrodlwnDr Elizbth ---- 751-6570
Pierce Ryan M 195 TemonaDr PlsntHls --- 650-9904
Pierce S 3404 BrownsvleRdExt Fnlyvl ---- 854-4106
Pierce S 118 CambriaHillDr EDeer --- 724 224-6116
Pierce S 105 CambridgeCt Hrwck --- 724 274-4901
Pierce S 121 EngerAv Pgh ---------- 761-8691
Pierce S 6514 SwanDr PenHls ---------- 798-0540
Pierce S L 1201 James Mnrovl ---------- 823-7578
Pierce Sally 302 OlivrDr WhiteOak ------- 678-0940
Pierce Sean P 468 FranklandAv Plum ---- 828-9477
Pierce Seon M 642 Mercer TurtlCrk ----- 829-9480
Pierce Service Co 216 Crst Clrtn ------- 233-8033
Pierce Shaun J 3132 Sorento ---------- 734-0522
Pierce Shirley M 610 FallsChurchRd
Imp-- 724 695-0409

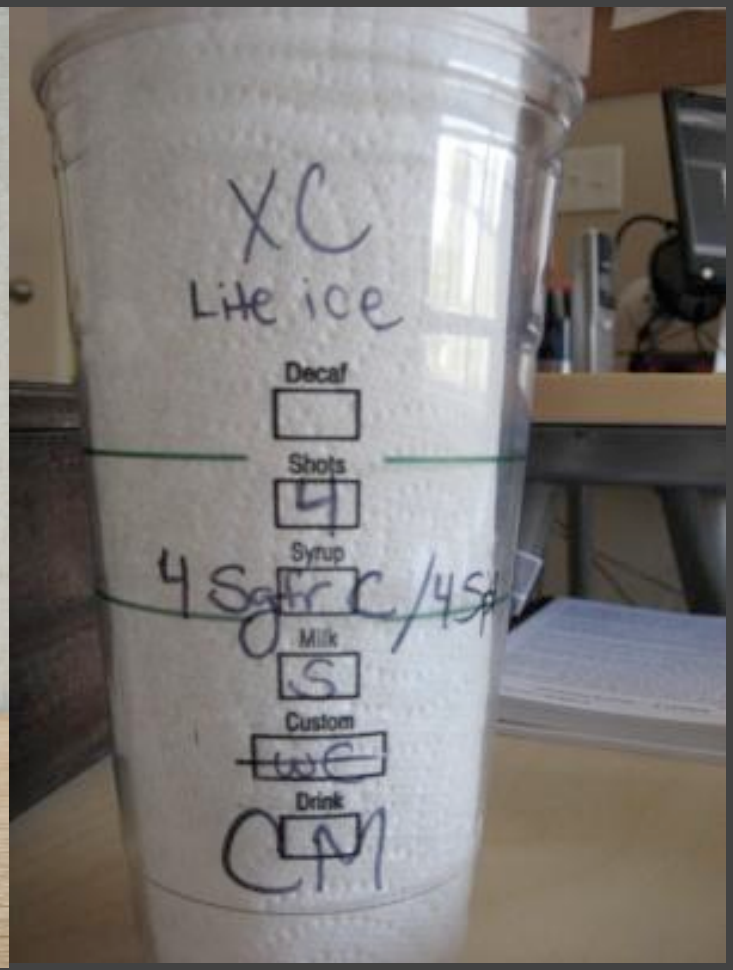
What is communication design?

London Underground



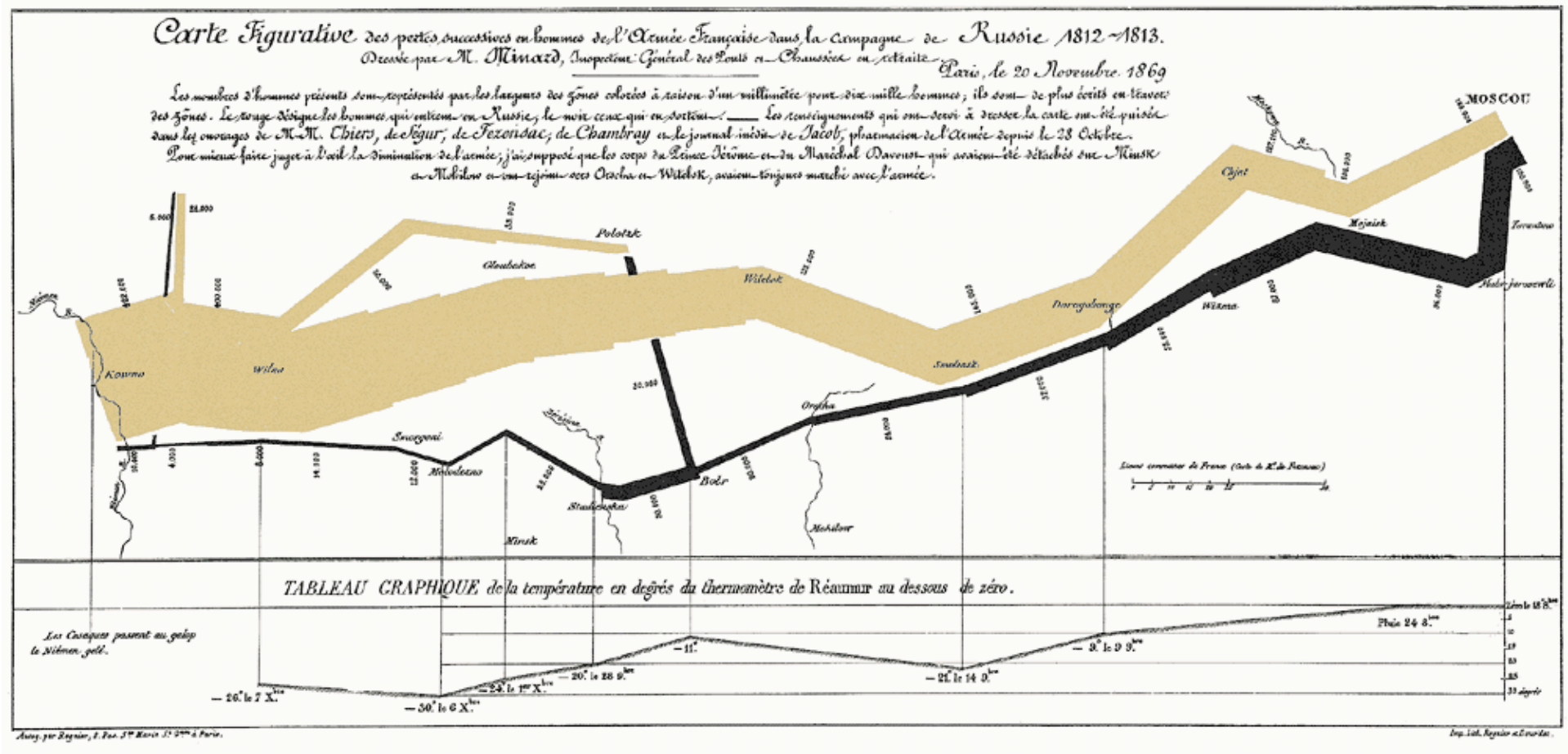
What is communication design?

Starbucks logo and communication system Logo



What is communication design?

Napoleon's march



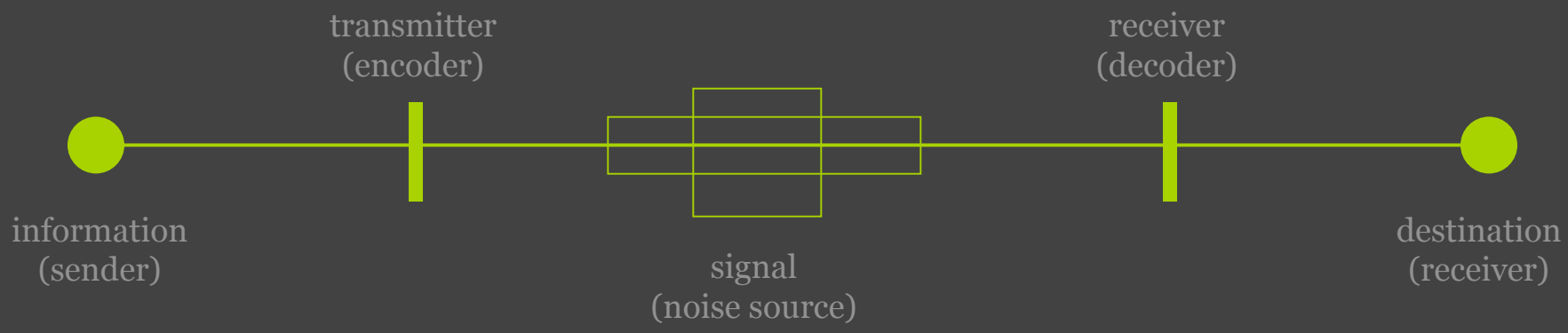
What is communication design?

BMW kidney grill

Information/communication

Information is knowledge about facts and events

Communication is the transfer of knowledge between people.



Shannon and Weaver

What is the design process?

The design process is a series of events that begins when the designer receives an assignment. It continues until a correct solution is generated and implemented. The design process is not linear, but iterative.

Problem definition (framing)

Understand and define the problem, including audience, project goals and objectives, and constraint such as time, budget, production limitations.

Information gathering

Fact finding about

- end user
- client / stakeholders
- landscape of competitive products
- convention of form
- context in which the product will function

Idea finding

Each design problem has many solutions.

Designers ideate, generating many possible solutions, then iterate a single idea to resolve issues.

Generally work by sketching and then prototyping. They reflect *in* and *on* their actions.

Solution finding

The process of narrowing in on one of the many ideas to execute in a finished form.

Designers use a critique, sharing ideas with other designers for feedback.

It is possible to involve users again at this point, to gain reactions to what might be, but this is rare in most communication design given the tight deadlines and strong conventions.

Implementation

Presenting the solution, gaining its acceptance, and executing the final product.

Typography
and communication design

Typography

Our communication is based on the alphabet and numerals. These are learned systems, which have enabled advances in science and literature.

Typography as we know it is an art of communication, measurement and proportion.

With type the focus of communication moved from the spoken word to the written word.

Anatomy of a typeface

A *typeface* is a set of type families of a unifying and distinctive design, and a *font* is one instance of that family :

Taz hair 21 italic , 48 pt face, weight, style, size

The standard measuring unit for type is the point, measured from top of ascender to bottom of descender.

The type designer must mix Roman letters and Arabic numerals.

Anatomy of a typeface

There are two kinds of type, serif and sans serif. A type family consists of a group of typefaces unified by a similar set of characteristics.

Relationships between type and the space around it is what makes paragraphs look different: size of x-height, type size, leading, and line length. Two key features of legibility are line length and leading.

Type samples

handgloves handgloves handgloves

handgloves handgloves HANDGLOVES

handgloves handgloves HANDGLOVES

handgloves handgloves handgloves

handgloves handgloves HANDGLOVES

handgloves handgloves handgloves

Type “etiquette”

leading is expressed as two numbers: 10/12

tight leading makes bodies of text hard to read

general guidelines: 9 to 11 point type needs 1 to 3 points of leading; 12 point type, 2-4 points of leading; 14 point type, 3-6 points of leading

Type “etiquette”

line length is the distance between the left and right margin of the type

“normal” line length is roughly 10 words
< 70 characters

challenges comes from moving the eye from the end on one line to the beginning of the next

more open leading allows for longer lines

Making decisions about type

Take inventory of text elements you need.

Choose a type family or two to work with. Make sure that each typeface looks good together, and supports the intended tone of the content.

Find suitable sizes for each of the elements. Create guidelines and maintain them.

Test line length and leading if applicable. Look at short and long pieces of text.

Making decisions about type

Use of ALL CAPS or *all italic* slows reading.

Readers pay attention to contrast among typographic elements. Changes in weight (bold, etc.) may be noticed more than changes in typeface.

Reversed type is a strong visual element and should be used judiciously.

Blank space around paragraphs and between columns of type helps increase legibility.

Making decisions about type

Portfolio

Portfolio

Portfolio

Portfolio

A word about digital type

Reading text on computer screens is problematic. Many of the same rules of printed text apply, with new variables :

- Users have to scroll to read long texts
- RSVP presentation is not detrimental to reading speed
- Presenting text on the screen in a way that mimics reading structure (phrasing) may increase performance

Typographic goals

To remain invisible to the reader

To increase clarity and readability

To subtly indicate voice and tone of speaker

How to Hack an iPod

Owners of Apple's MP3 player opened it up and added all sorts of bells and whistles. You can too

By Chris Taylor

HERE'S HOW DEMOCRACY works in the digital age. Just before Apple unveiled the iPod last October, the Internet rumor mill was rife with speculation that the device would be some kind of personal organizer—Steve Jobs' answer to the Palm Pilot. The iPod turned out to be a palm-size music player with a five-gigabyte hard drive (a 10-GB version was released two weeks ago). But now, six months later, that original speculation doesn't seem too wrong. That's because Apple's hard-core users quickly figured out how to hack the device and write new software for it. It's as if they told Jobs, Very nice, Steve, but what we needed was an organizer, and we've decided to turn the iPod into one.

The upshot is that last week I used my iPod for half a dozen more things than it was intended for. I read my horoscope, skimmed the latest news and sports headlines, sent little memos to myself, checked my appointment calendar and uploaded my entire address book. I also cranked up the tunes, although not in the way Apple planned. The iPod's original restrictions—that you can share music with only one Mac and that you can't use it with a Windows PC—have been totally blown away.

Not that anyone should junk their Palm just yet. You can't enter text directly onto an iPod, for one thing; you have to do it via the computer. That said, the iPod's design beats Palm's hands down when it comes to reading text; with the trackwheel you can scroll through any document with one hand. And the iPod's gargantuan disc space, which dwarfs the eight megabytes of most handhelds, can hold just about anything—as CompUSA found out when an iPod owner walked in, hooked his device up to one of the store's Macs and downloaded the entire Microsoft Office suite.

Assuming you want your free iPod extras to be a little more legal, here's a handy shopping list. First, go to *www.apple.com/ipod*, and make sure you have version 1.1 of the iPod software. This will let you export your address book from programs like Palm Desktop and Microsoft Entourage. Check out iPoding.com or iPodhacks.com for other address-book formats. Then go to VersionTracker.com, and search for iPod (specify Mac OS 9 or OS X) to see which of the following goodies are available for your machine.

Want a datebook? Check out K-Lendar, which will list all your appointments, by day and start time, under the "artists" category of your iPod. For a notepad, try Podtext. Need a news fix with your music? Pod News has an abbreviated choice of headlines and horoscopes, updated from the Web every time you recharge your iPod. PodNotes also has headlines and, amazingly, downloadable driving directions from any location.

To get around Apple's built-in restrictions and share music with different Macs, try PodMaster or Free File SynX. If you're using a PC, get EphPod (at *www.ephpod.com*). Be warned: you may need to install a special FireWire (or IEEE 1394) port to connect to the iPod.

Although Apple frowns on music-download hacks, it is delighted with the Palm-style stuff. The wildly popular address-book software has already been adopted, and similar programs may soon become part of the official iPod canon. The people wanted a digital organizer, and bit by bit, the people are getting one. Isn't democracy beautiful? ■

Pod-hacking ideas for Chris? E-mail him at **cdt@well.com**

POCKET TO ME Wondering what to wear to your next office party? The Logitech Pocket Digital camera ($130) looks like a posh cigarette case and easily slips into a dinner jacket. The camera is only half an inch thick, but it packs an impressive 1.3-megapixel resolution and can store 52 images. If the party gets wild, you can snap every embarrassing moment.

AIRING IT OUT If you're starting to overheat from the back-and-forth grind of business travel, the Kensington FlyFan ($25) may be just what the flight attendant ordered. It's powered by a laptop's USB port and cuts the air with 1½-in.-wide blades made of fabric (so you can't cut yourself). You won't get there any faster, but at least you will look cool.

PARTY MACHINE Need a way to make some big noise? Stick an Olympia Soundbug ($50, at *www.shoplifestyle.com*) onto any wood, metal or glass surface, plug it into the headphone jack of your laptop or Walkman and listen to the surface start to resonate like a real speaker. Hook up a pair of the mouse-size devices, and enjoy stereo sound. Their sucker-like push rings lock them firmly in place—even on windows. —*By Roy B. White*

CHAPTER ONE

THE VETERAN

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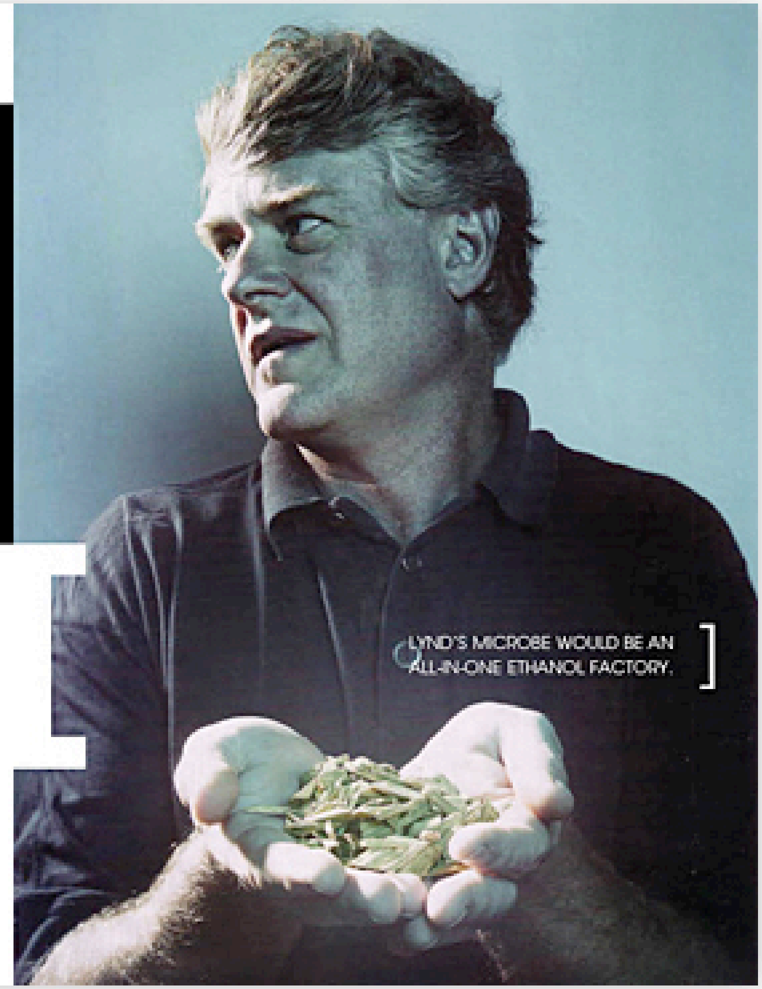
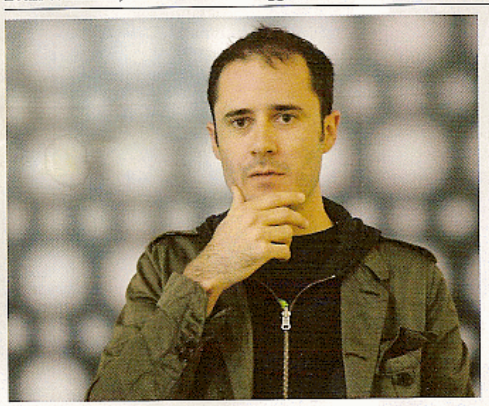


[PORTRAITS BY PETER [illegible]]

Face value | The accidental innovator

Evan Williams, the founder of Blogger and Twitter, epitomises Silicon Valley's right brain



AT SOME point in the decade after he moved from the farm in Nebraska where he grew up to the innovation hub that is the San Francisco Bay Area, Evan Williams accidentally stumbled upon three insights. First, that genuinely new ideas are, well, accidentally stumbled upon rather than sought out; second, that new ideas are by definition hard to explain to others, because words can express only what is already known; and third, that good ideas seem obvious in retrospect. So, having already had two accidental successes—one called Blogger, the other Twitter—Mr Williams is now trying to make accidents a regular occurrence for his company, called Obvious.

Of his previous successes, Blogger is today the best-known. It came about in the late 1990s when Mr Williams and his team struggled to build a complex software tool to let people collaborate. To keep each other abreast of the project, they kept a simple internal diary. Since that seemed to be the only thing working well, they joked that it, not the original project, should become their product. Thus was born Blogger, a web service that lets anybody create a blog with a few clicks. At the time, almost nobody understood what a blog was, or why anybody would want one. But in 2003 Google bought the company, and both blogs and Blogger are today part of the internet's mainstream.

By transferring to Google, however, Mr Williams, with his intuitive right-brain approach, was moving to Silicon Valley's analytical left brain. Shy and taciturn, he discreetly lets on that he hated every minute of his time at what was already an internet superpower in the making. Google trumpets its innovative nature, but its genius is for attacking known problems (web search, e-mail, calendars, etc) with brute force—weapons of mass computing and mathematical algorithms. Mr Williams's passion is solving new problems. In theory he could have done this at Google with his "20% time" on the side, but in practice he found it tedious to pitch ideas to the Google bureaucracy. Left and right brains clashed in other ways. Google values official brains—the credentialled, academic sort—whereas Mr Williams dropped out of university in Nebraska because he found the concept somewhat silly. He left Google after less than a year.

His next idea, he now realises, was flawed by being obvious not in retrospect, but from the start—itself an important lesson. When podcasts emerged as the audio analogue of blogs, Mr Williams used his Google money to invest in a firm called Odeo that aimed to make listening to podcasts easier. Yet such a tool was so vital that Apple did the job with iTunes, its popular music-library software, thus eliminating the need for Odeo.

So Mr Williams started Obvious, determined to go back to good accidental stumbling. One of its side projects—Mr Williams loves side projects so much that his main projects seem to exist mainly as placeholders—was something called Twitter. If blogs were difficult to explain in 1999, Twitters are well nigh impossible. You might call them micro-blogs or nano-blogs, as Twitter lets users write only 140 characters at a time, albeit from any device, or using an instant message or text message. Twitter imposes another restraint: each post must be an answer to the same question: What are you doing?

Thinking with the left brain, most reasonable people seem to agree that this idea is hare-brained, frivolous, banal and ridiculous. Indeed it is. And millions of people absolutely love it, twittering away throughout the day. Like all new and cool things, says Mr Williams, it's "experiential". So it turns out that mums love to be notified on their mobile phones that their teenager is "eating an orange". Colleagues appreciate that you are "running late" as they wait in the meeting room. Friends seeing that you are "having an espresso at Starbucks" might stop by. And a lot of people simply feel more connected by scavenging for conversational scraps from their friends.

All of this has made Twitter the third "next big thing" in Silicon Valley in 2007—after the iPhone, Apple's innovative new mobile handset, and Facebook, a social-networking site. The proof is that copycats have sprung up, that Google has bought one of them and that Facebook has made its "status" updates, in effect, internal Twitters. (Facebook also works with Twitter itself.) Exactly how to make money from Twitter remains an open question—one that Mr Williams is intellectually curious about, though it has not exactly been his main concern in the past. He would like to make Twitter as mainstream as Blogger. But what he really wants is to make stumbling on accidents into a culture, habit, process or speciality. That is why he has spun the 12 people working on Twitter out of Obvious (though they all sit in the same snazzy San Francisco loft), and is looking for new talent.

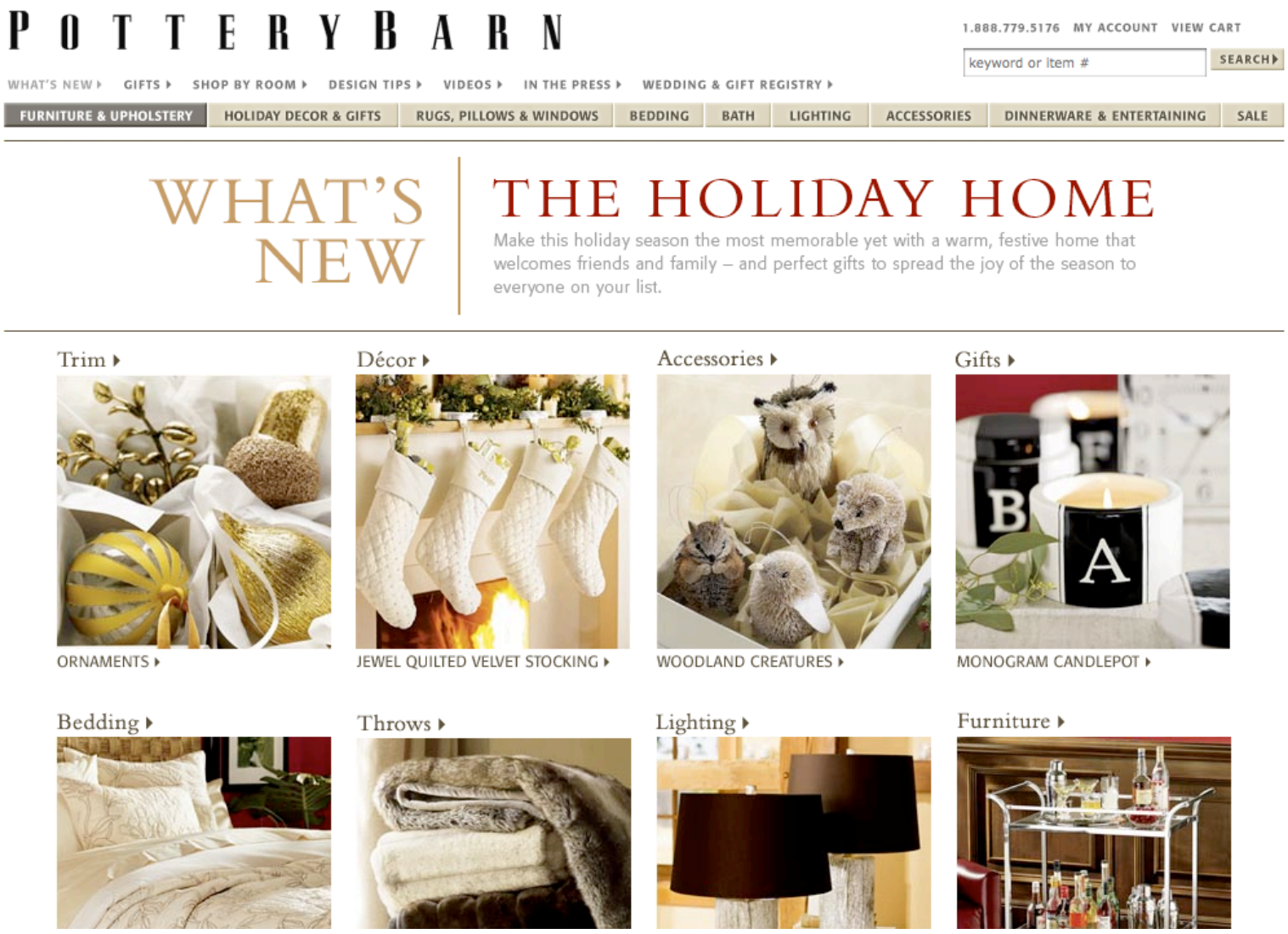
The pursuit of accidents

The irony of trying to plan accidents, and orchestrate their frequent occurrence, is not lost on Mr Williams. So he tries mental tricks. One is to ask "what can we take away to create something new?" A decade ago, you could have started with Yahoo! and taken away all the clutter around the search box to get Google. When he took Blogger and took away everything except one 140-character line, he had Twitter. Radical constraints, he believes, can lead to breakthroughs in simplicity and entirely new things.

For the same reason, Mr Williams loves frustration. Blogger revealed itself when he was frustrated with something bigger: collaboration software. He chooses still to be frustrated by it, saying that he would like to create some sort of "better to-do list", a cross between a calendar, a wiki and other things. Ultimately, that is not the point, of course. The point is to try to do one thing, in the hope of losing discipline and focus at the first opportunity. "We have an itch that we scratch," he says, "and that becomes the thing." Silicon Valley is what it is because it has a few firms like Google—and lots of people like Evan Williams. ■

Color
and communication design

Color matters!



Color matters!

The colors we seen in nature are reflections of the visible light around us.

- Helps us to distinguish elements
- Creates an emotional response
- Can create semantic meaning and communicate information

Color is difficult

Cultural differences and associations – Kodak yellow, Coke red

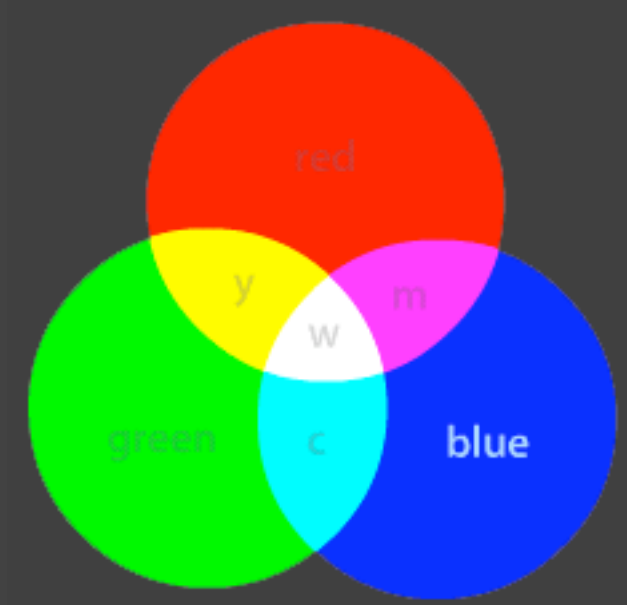
Different disciplines deal with color in differently: physics, psychology, engineering, fine arts and design

Highly subjective and relative – affected by light, context, environment

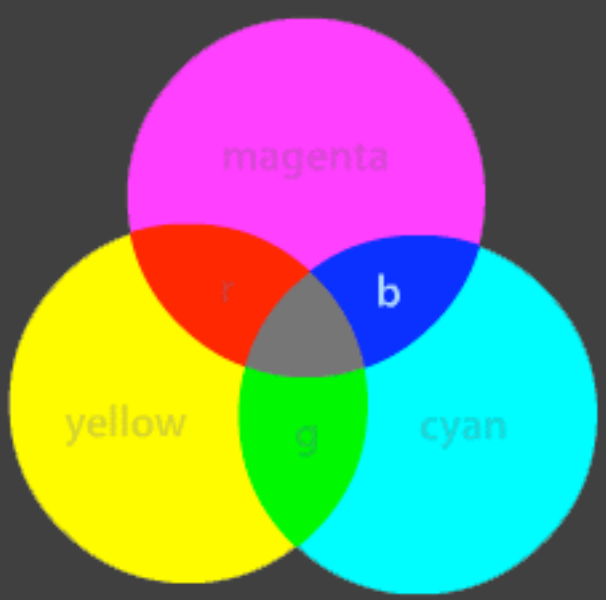
Simultaneous contrast – color is affected by what color is next to it

Color is difficult

To make matters worse, print media and digital media use different color models.

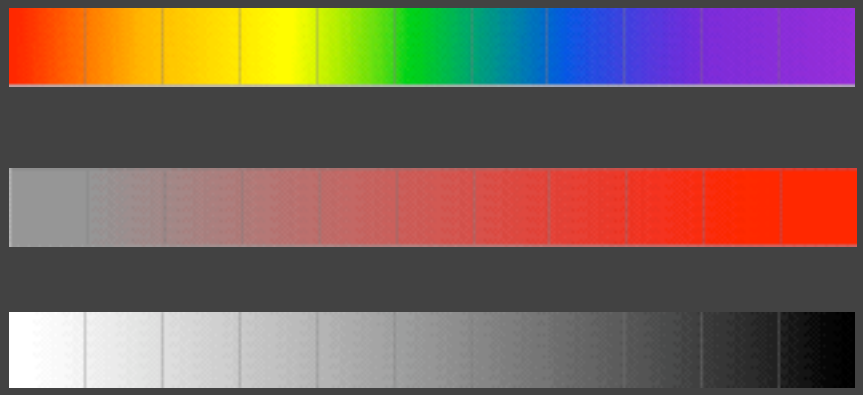


The additive model used by screen displays mixes colors with light (white).



The subtractive model used by print media and pigment mixes colors with ink (black).

Color properties



- Hue
- Saturation
- Value

Hue

Hue refers to the name of the color. One hue can be varied to produce many colors: for example, pink, rose scarlet, maroon, and crimson are all colors, but the hue in each case is red.

ROYGBIV are the hue names.

Saturation

Saturation is sometimes called chroma, or intensity. These terms refer to the brightness of a color. A color is at full intensity when there is no other pigment present in the color. Mixing black or white into a color affects its purity and intensity.

A hue is at its full intensity when it is fully saturated. Adding black or white desaturates the hue.

Value

Value refers to the lightness or darkness of a hue or color. In pigment, value can be affected by adding white or black paint to the color.

Color strategies

- Primary/secondary/tertiary
- Warm /cool
- Monochromatic
- Neutrals
- Complements/split complements
- Analogous/harmonious

Design composition, layout, and systems

Simplicity in composition

People seek order and clarity in communication and spaces.

They appreciate solutions that solve problems in a clear, economical fashion.

Good communication design is simple.

Simplicity in composition

The functional and aesthetic benefits of a simple design are

Approachable – use immediately

Recognizable – easy to assimilate and remember

Immediate – have a greater impact on the viewer

Usable – prominent, easy to engage with

How to do it?

Creating a simple and usable design is about assessing component parts of a design and the relationship between those parts. Train your eye to look for these relationships:

- Reduction
- Regularization
- Scale, contrast and proportion
- Harmony
- Alignment
- Proximity and correspondence
- Symmetry and asymmetry

Reduction

Reinforce the message by removing non-essential elements from the design. Ask yourself, is this (rule line, bolding, etc.) needed? Then try to remove it anyways.

Does the design stand up?

Regularization

Establishing regular relationships (i.e., a pattern) allows the viewer to become comfortable with the design and move to a higher level of abstraction.

Scale, contrast, and proportion

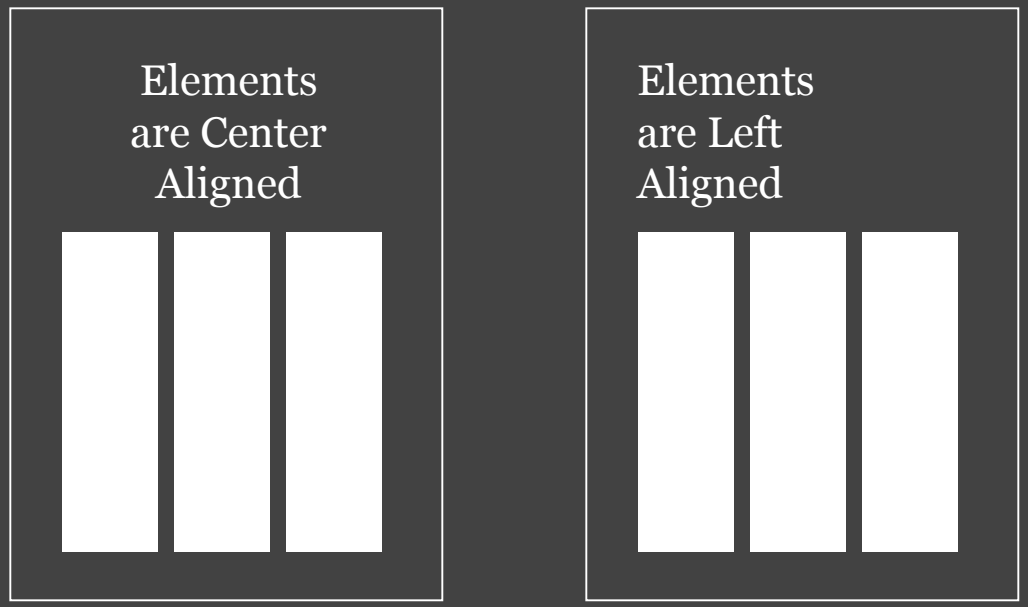
The scale of elements determines where the viewer looks first, and what is most important. Large, powerful visual elements must be used judiciously, particularly in interface design.

Harmony

Harmony describes the effect, seen at the level of the whole, of the pleasing interaction of the parts.

Alignment

When forms, their edges, or their central axes align with one another, relationships and connections between them are established.



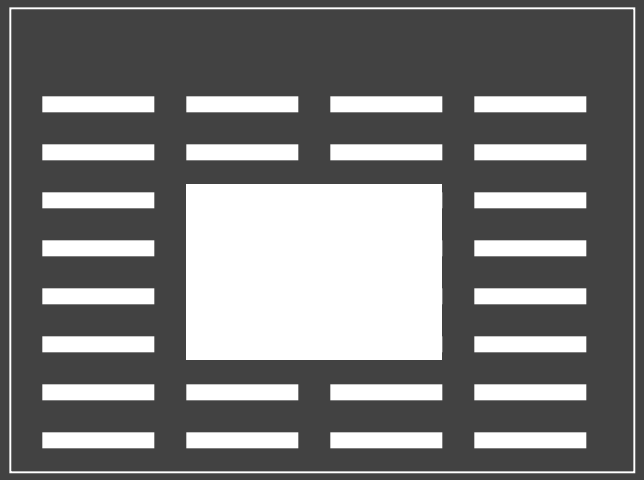
Proximity and correspondence

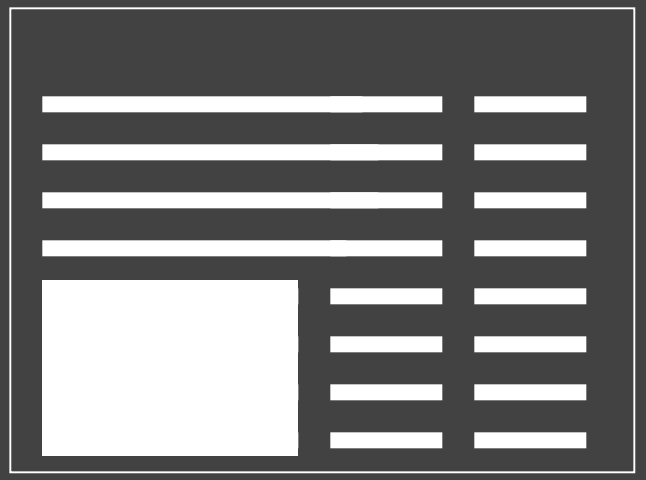
When forms are near to each other, the eye makes visual groupings of the information. Similar size, shape, color or texture can also cause groupings.

13 1 3 21 37 21 37

Symmetry and asymmetry

Symmetry is similarity of form or arrangement on either side of a dividing line or plane. A symmetric organization symbolizes a restive state, while asymmetry suggests energy. Content drives designers' choices about symmetry.





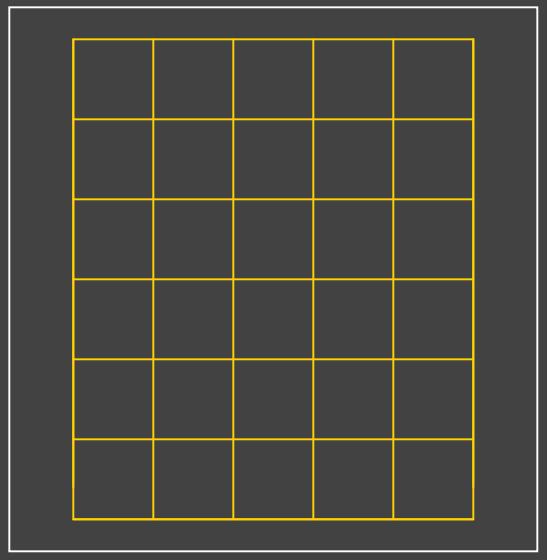
Design programs

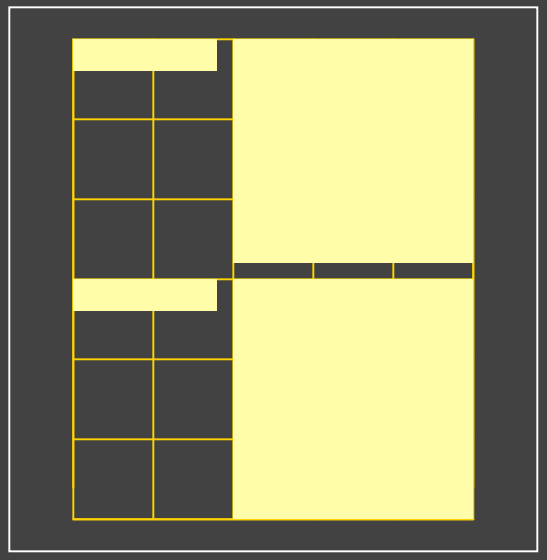
A design program is a comprehensive system of organization, utilizing repeated sizes, proportions, and design elements to maintain consistent functional and aesthetic qualities over a series of pages, screens, or artifacts.

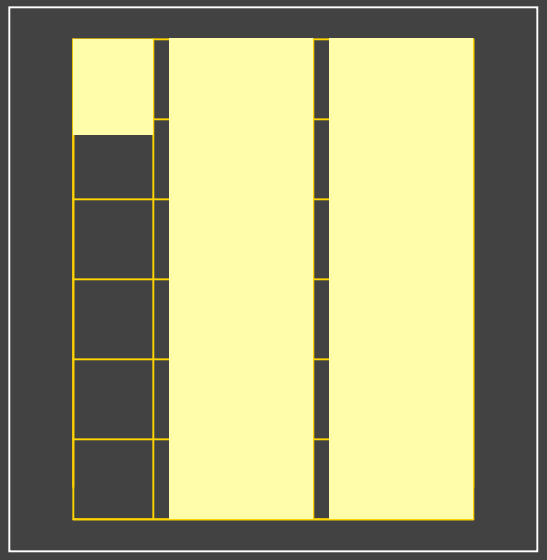
Elements such as type sizes, styles, placement of elements, and colors are used consistently to unify a series of designs.

Design programs

Design programs are based on grid systems.







Design programs

Grid systems allow the layout to be codified across a series of pages, displays, etc.

Grid systems are based on columns and rows.

The more columns and rows, the more flexible the design.

Design programs

When a grid system is put to good use, it will create a regular and rhythmic design.

Consistent use of a grid, paired with visual elements, will create a consistent “look and feel” in a manual, web site, or GUI.

Design programs

Why is it good to have a design program?

- Structured: the foundation on which the design is built
- Predictable: simplifies the task of communicating information to the user
- Efficient: the basic design work is complete, and the design can be repeated easily

Creating a design program

Assess your communication goals. Where will the information be displayed? Who is the audience? What is the purpose of the communication?

Group each item of information into a small number (5-7) of categories according to origin or intended use.

Determine the rank or importance of each group. Organize into a smaller number (3-5) of echelons based on this ranking.

Creating a design program

Use appropriate variables to establish hierarchy. Large, bold type might be used for the most important information. A systemic location on the grid might be reserved for pictures.

Use a grid to base your designs on.

Use the squint test to make sure echelons are hanging together as a unit, but with enough difference to be visually separated from each other.

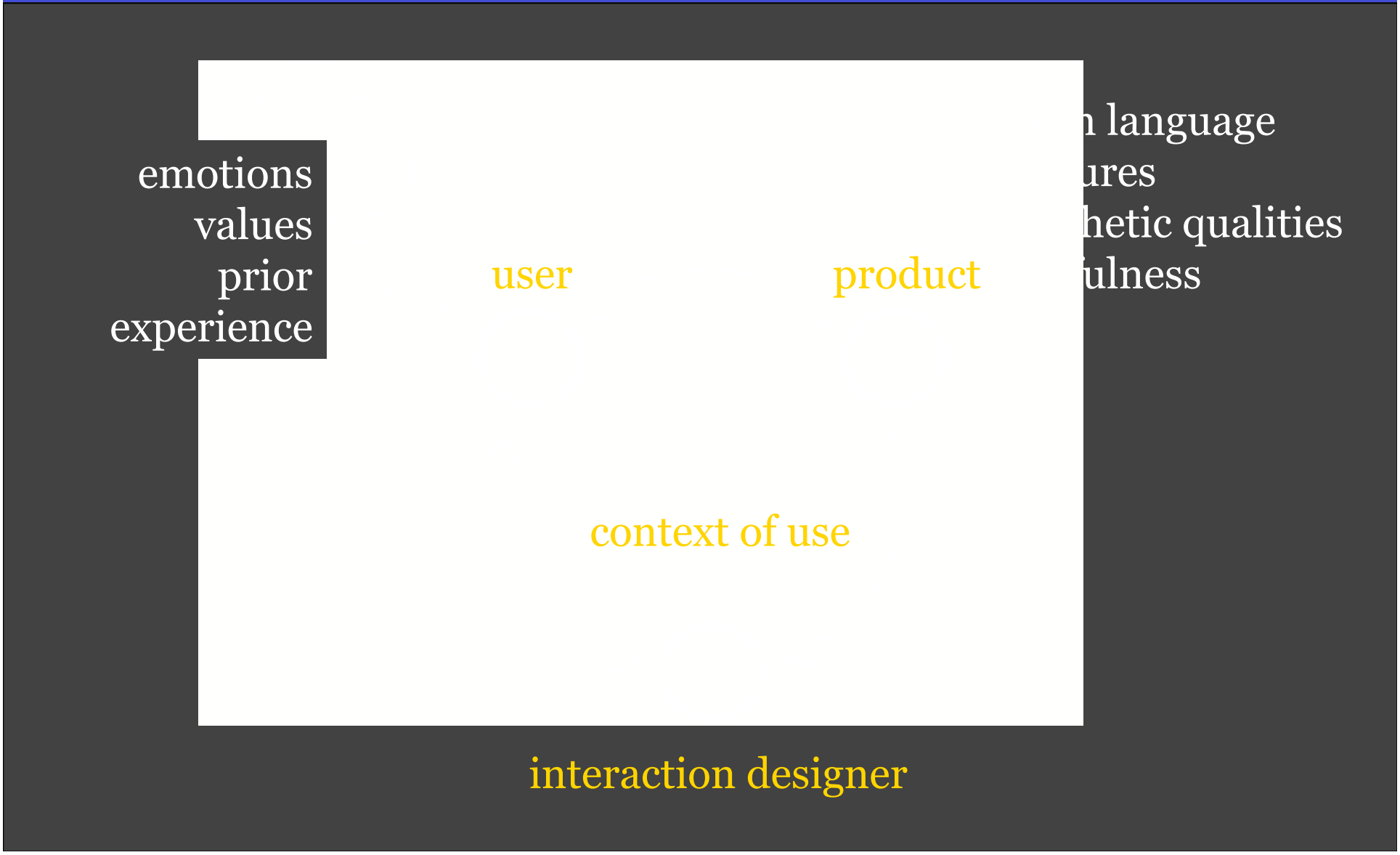
What is interface design?

What is interface design?

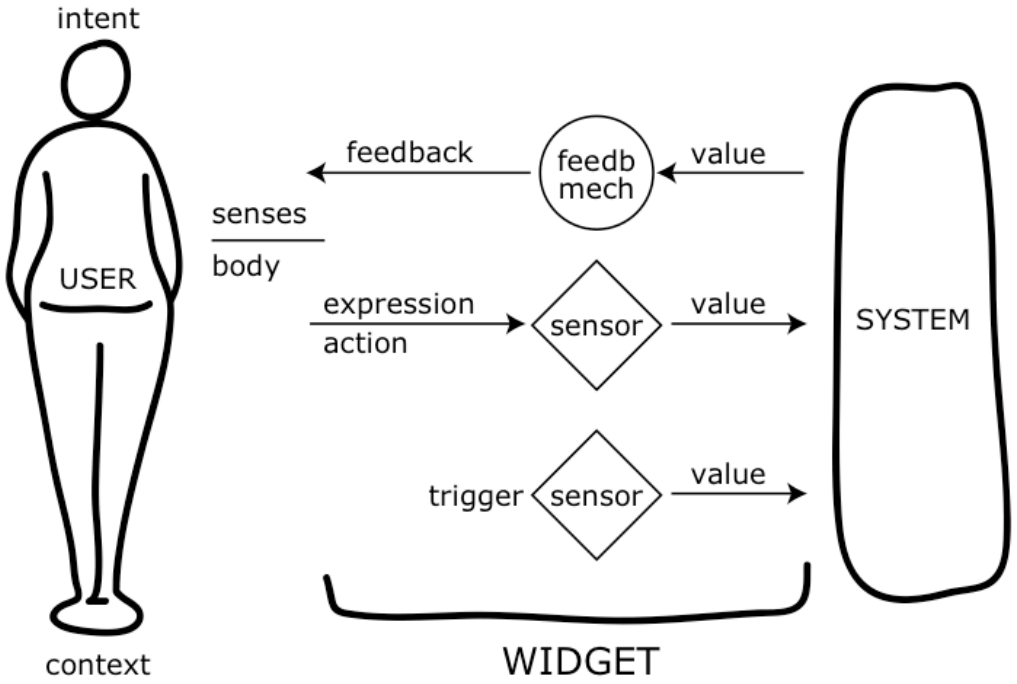
An interface is the link between a product and its user. It communicates how a product is used, and creates an experience for the people who use it.

An interface is an aggregate of characteristics that a user initially engages with in order to make use of a product.

What is interface design?



Communication



Communication

(Perceptive) Affordance: how does it tell me how to interact with it

Feedforward: what does it tell me it will do before I interact with it

Feedback: how does it acknowledge my expression of intent or an environmental trigger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What is interface design?

An interface offers the user a story of use. If it matches how the user thinks, it is easy to use.

If the product is complex, inaccessible, unlearnable, or unfamiliar, the user will not be able to use it.

What is interface design?

Interface design is the act of conceiving of, planning, and executing a set of product characteristics. For example:

- A car's interface
- The Starbuck's interface
- A software interface

Designing an interface system

- Use a grid, and establish modular units
- Use repeat elements to reinforce structure
- Look at the set of information to discern commonalities from screen to screen
- Look for elements that should be visually related
- Think about how the user would navigate through and use the interface
- Sketch, iterate, get user feedback, iterate, and refine

Navigation

Navigation

Navigation is finding one's position in a place (an electronic information space). Navigation through software occurs at multiple levels:

- among multiple windows, views, or pages
- among panes or frames within a window, view or page
- among tools, ,commands, or menus• within information in one pane (scrolling, panning, zooming, following links)

Reduce the number of places

Keep the numbers of windows and views to a minimum.

Keep the number of adjacent panes to ~3 (ex: two navigation areas and one content area).

Keep the numbers of controls to as few as users need for achieve their goals.

Scrolling should be minimized when possible.

Provide signposts

Provide points of reference so people can find their way around.

Rely on persistent objects (main navigation and controls, menu bars, toolbars, palettes).

Don’t forget use of white space and good typography.

Provide overviews

Overviews help to orient the user in content, just like signposts orient people in using functions and controls.

- Breadcrumbs
- Annotated scrollbars

Map controls to functions

Mapping describes the relationship between a control, the thing it affects, and the intended result.

Physical mapping (stove burners and controls)

Logical mapping (numerical, alphabetical, hierarchical, etc.)

Basics of visual interface design

John Zimmerman
HCII and School of Design
Carnegie Mellon University

November 2008

Resources

General Design and Typography

• Carter, Rob, Meggs, Philip B., and Day, Ben. Typographic Design: Form and Communication.

• Meggs, Philip B. Type and Image: The Language of Graphic Design.

• Tufte, Edward. Envisioning Information.

• Tufte, Edward. The Visual Display of Quantitative Information.

Typography and Layout

• Schriver, Karen A. Dynamic Document Design: Creating Text for Readers

Resources

Color

- Albers, Josef. Interaction of Color.
- Itten, Johannes and Birren, Faber. The Elements of Color.

Visual Interface Design

- Mullet, Kevin and Sano, Darryl. Designing Visual Interfaces.
- Cooper, Reimann, and Cronin. About Face 3.

Resources

Web sites

General Design

Mundi Design
http://www.mundidesign.com/

Typography

Studiomotiv
http://www.studiomotiv.com/counterspace/

Color

Color research at Brown University:
http://www.cs.brown.edu/exploratory/

Web color

http://www.lynda.com/