

User Interaction Models

No screens



Prof. Lydia Chilton
COMS 4170
6 February 2019

Say your name



Last time on COMS 4170....

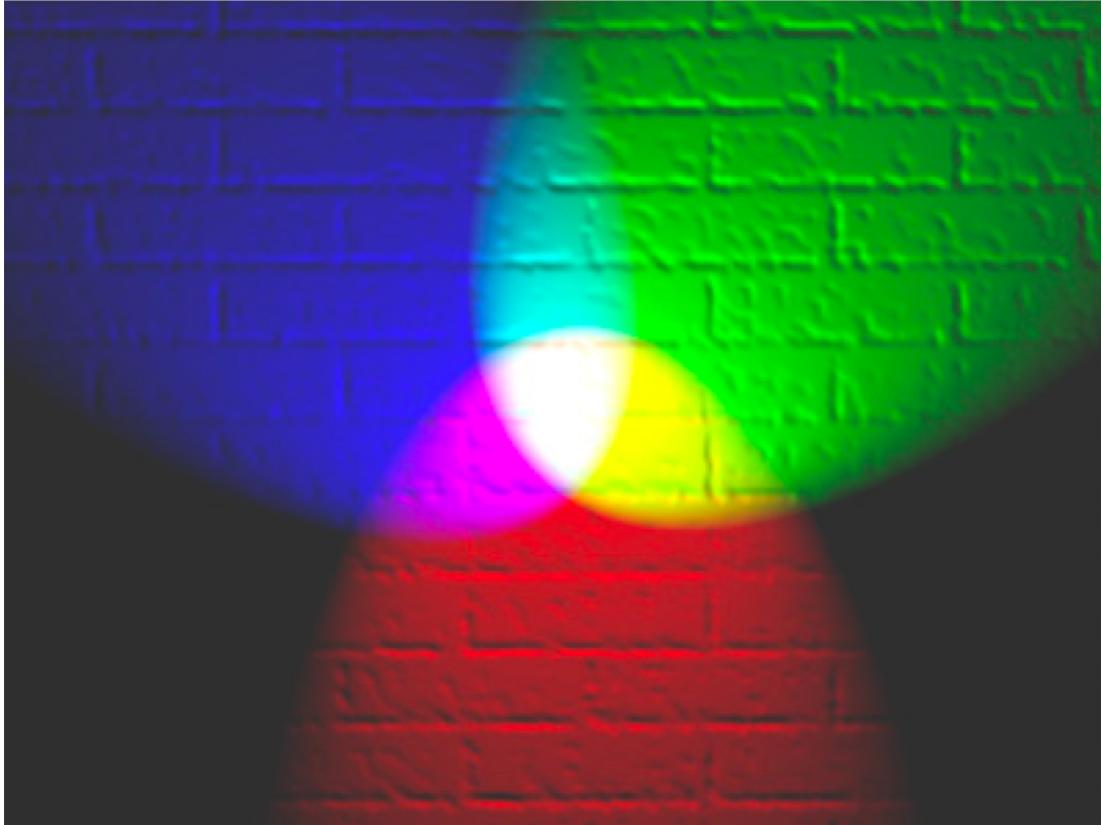


Color, Typography, Gestalt

Prof. Lydia Chilton
COMS 4170
4 February 2019

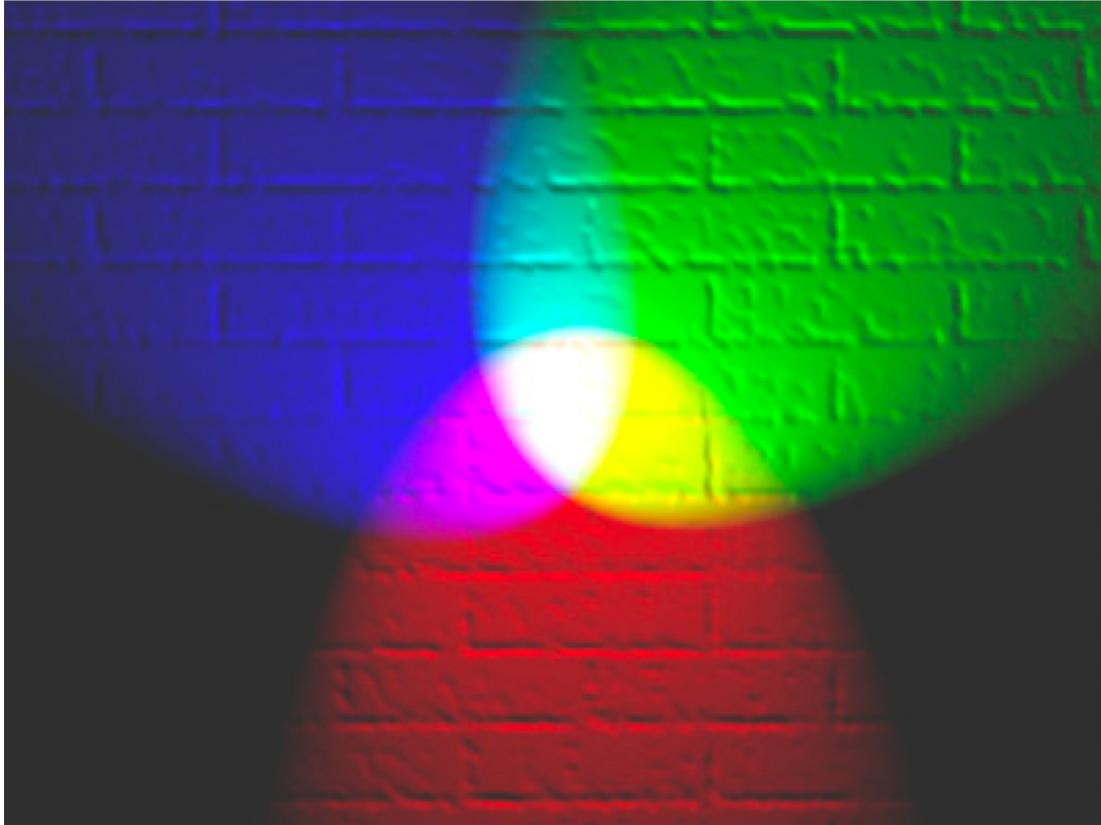
 COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK

What is this color model called?



R**G****B**

What color will you get?



If you have have

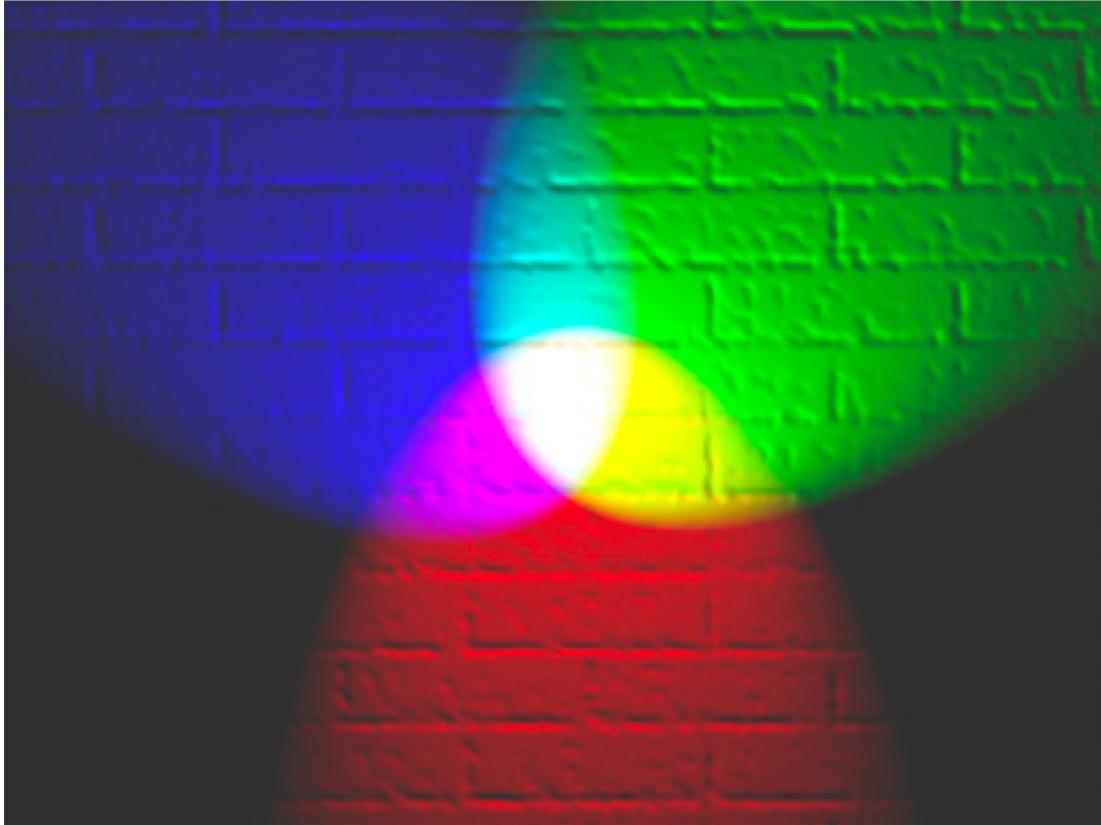
Red: **100%**

Green: **100%**

Blue: **100%**

White

What color will you get?



If you have have

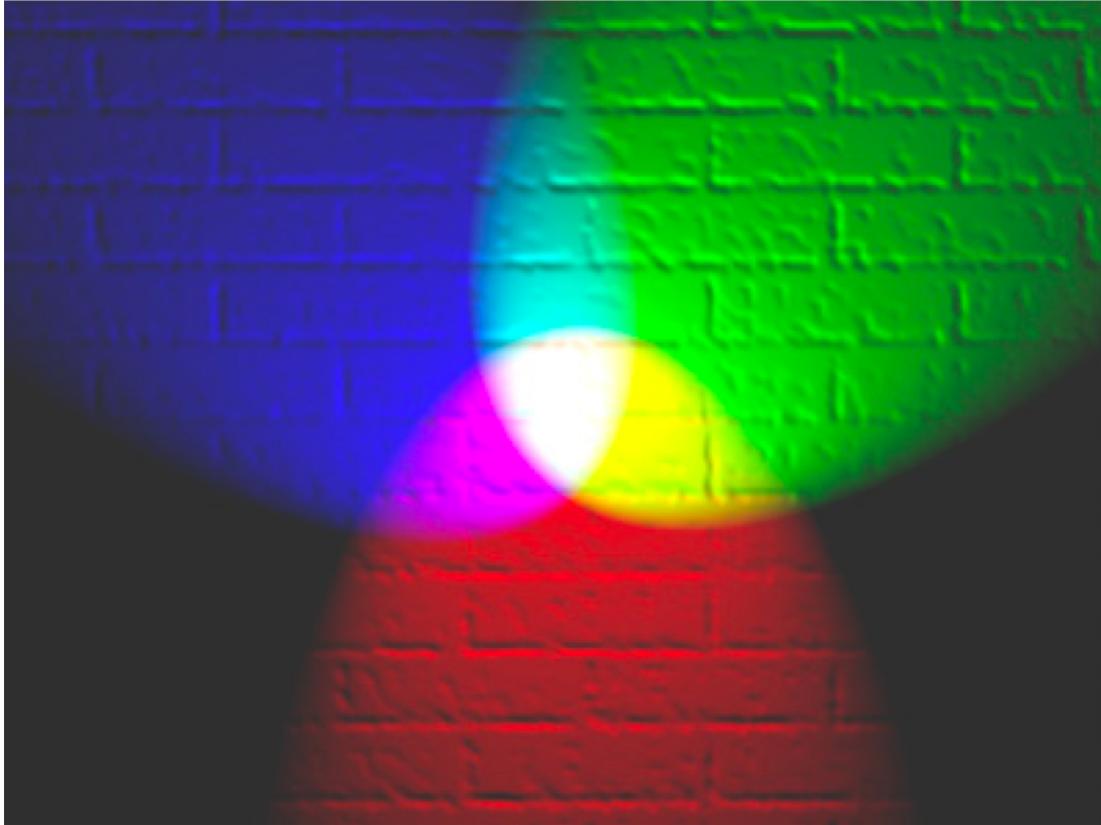
Red: **50%**

Green: **50%**

Blue: **50%**

Grey

What color will you get?



If you have have

Red: **50%**

Green: **50%**

Blue: **50%**

Grey

If you have have

Red: **20%**

Green: **20%**

Blue: **20%**

Darker

Grey

What's good about these fonts together?

DUANEreade™

Contrasting fonts:

San serif + serif

What should you not do?

DUANEreade

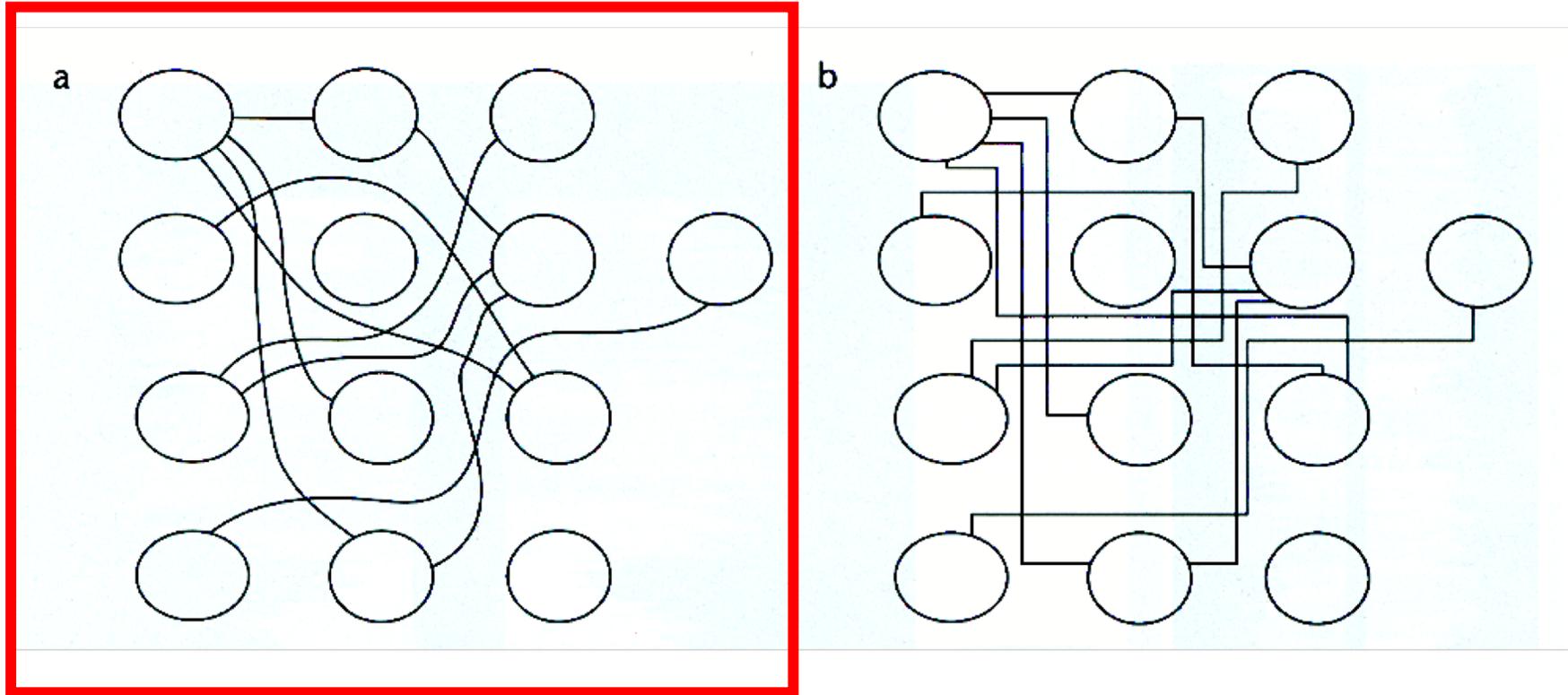
Conflicting fonts:
serif + serif

What's another good way to mix fonts?

DUANEreade

Concordant fonts:
Gill Sans + Gill Sans MT

Which of these is easier to follow?



Continuity

Our minds perceive lines and curves
as continuing on their trajectory

User Interaction Models

No screens



Prof. Lydia Chilton
COMS 4170
6 February 2019

Say your name



Goal 1

Build websites that suit the needs and abilities of users

1. Display information

What's the point of this website?

The screenshot shows the Amazon website interface. At the top, the Amazon logo is on the left, followed by a search bar containing the text "design of everyday things". To the right of the search bar is a magnifying glass icon and the text "Shop Valentine's Day Deals". Below the search bar, there are navigation links for "Departments", "Your Amazon.com", "Today's Deals", "Gift Cards", "Registry", "Sell", and "Help". On the right side of the navigation bar, there are links for "EN", "Hello. Sign in Account & Lists", "Orders", "Try Prime", and a shopping cart icon with "0" items.

The main content area shows search results for "design of everyday things". It indicates "1-16 of over 6,000 results" and a "Sort by" dropdown menu set to "Relevance". On the left, there is a filter for "FREE Shipping" and a sidebar with "Show results for" categories like "Books" and "Kindle Store".

The top result is "The Design of Everyday Things: Revised and Expanded Edition" by Don Norman, published Nov 5, 2013. It is marked as a "Best Seller" and has a 4.5-star rating from 277 reviews. The price is \$11.33, down from \$18.99, with a Prime badge. It is available in paperback and audiobook formats. The audiobook is free with an Audible trial.

The second result is "The Design of Everyday Things" by Don Norman, published Sep 19, 2007. It has a 4.5-star rating from 301 reviews and is available in paperback for \$3.22 and as an audiobook for \$0.00.

The third result is "Emotional Design: Why We Love (or Hate) Everyday Things" by Don Norman, published May 11, 2005.

Overlaid on the center of the screenshot is the text: "Users interact with the system to accomplish a goal."

Goal 1

Build websites that suit the needs and abilities of users

1. Display information

2. Design interactions that allow users to accomplish a goal

Goal: Buy a book

Subgoal: Search for book

Interaction: Type its name, click on the image of it

The screenshot shows the Amazon website interface. At the top, the Amazon logo is on the left, and the search bar contains the text "design of everyday thi". To the right of the search bar is a magnifying glass icon and the text "Shop Valentine's Day Deals". Below the search bar, there are navigation links for "Departments", "Your Amazon.com", "Today's Deals", "Gift Cards", "Registry", "Sell", and "Help". On the right side of this navigation bar, there are links for "EN", "Hello. Sign in Account & Lists", "Orders", "Try Prime", and a shopping cart icon with "0" items.

Below the navigation bar, the search results are displayed. The first result is for "The Design of Everyday Things: Revised and Expanded Edition" by Don Norman, published on Nov 5, 2013. It is marked as a "Best Seller". The book cover features a red teapot on a yellow background. The price is \$11.33, with a crossed-out price of \$18.99 and a Prime logo. It has a 4.5-star rating from 277 reviews. The paperback format is available for \$4.93 (129 used & new offers). The Kindle Edition is available for \$11.99, also with a Prime logo and a "Get it TODAY, Jan 31" badge.

The second result is for "The Design of Everyday Things" by Donald A. Norman, published on Sep 19, 2002. The book cover features a red teapot on a black background. It is available in paperback for \$3.22 (147 used & new offers). The Audible Audio Edition is available for \$0.00, free with an Audible trial. Other formats include MP3 CD. A link to "See newer edition of this book" is provided.

On the left side of the search results, there are filters for "FREE Shipping" (All customers get FREE Shipping on orders over \$25 shipped by Amazon), "Show results for" (Books, Kindle Store), and "Refine by" (AmazonFresh).

Goal: Buy a book

Subgoal: Add to cart

Interaction: Click “Add to cart” button

The screenshot shows the Amazon product page for the book "The Design of Everyday Things: Revised and Expanded Edition" by Don Norman. The page is displayed in a browser window with the Amazon header and navigation bar. The main content area features the book cover on the left, which is yellow with a red teapot illustration. To the right of the cover, the title and author information are displayed, along with a star rating and the number of customer reviews. Below this, there are two tabs for "Kindle" and "Paperback", with the "Paperback" tab selected. The price for the paperback is \$11.33, with a list price of \$18.99 and a 40% discount. A "Add to Cart" button is prominently displayed in a yellow box. To the right of the main content, there is a sidebar with social sharing options, a "Buy New" section showing the price and quantity, and a "Want it TODAY" section with a "Same-Day Delivery" option. At the bottom right, there is an "Add to List" button.

amazon try Prime

All

Shop Valentine's Day Deals

Departments ▼ Your Amazon.com Today's Deals Gift Cards Registry Sell Help

EN ▼ Hello. Sign in **Account & Lists** ▼ Orders Try Prime ▼

[Back to search results for "design of everyday things"](#)

The Design of Everyday Things: Revised and Expanded Edition and over one million other books are available for **Amazon Kindle**. [Learn more](#)

The DESIGN of EVERYDAY THINGS Paperback –

November 5, 2013
by [Don Norman](#) (Author)
★★★★☆ 277 customer reviews

#1 Best Seller in Retailing Industry

[See all 2 formats and editions](#)

Kindle \$11.99	Paperback \$11.33
-------------------	------------------------------------

[Read with Our Free App](#) 62 Used from \$4.93
62 New from \$5.33
5 Collectible from \$9.00

Even the smartest among us can feel inept as we fail to figure out which light switch or oven burner to turn on, or whether to push, pull, or slide a door. The fault, argues this ingenious—even liberating—book, lies not in ourselves, but in product design that ignores the needs of users and the principles of cognitive psychology. The problems range from ambiguous and hidden controls to arbitrary relationships between controls and functions, coupled with a lack of feedback or other assistance and unreasonable demands on memorization. *The Design of Everyday Things* shows that good, usable design is possible. The rules

[Read more](#)

The Amazon Book Review
Author interviews, book reviews, editors picks, and more. [Read it now](#)

Share [<Embed>](#)

Buy New **\$11.33**
Qty: List Price: ~~\$18.99~~
Save: \$7.66 (40%)

FREE Shipping on orders over \$25
—or get **FREE Two-Day Shipping** with **Amazon Prime**

In Stock.
Ships from and sold by Amazon.com.
Gift-wrap available.

[Turn on 1-Click ordering for this browser](#)

Want it TODAY, Jan. 31? Order within **1 hr 15 mins** and choose **Same-Day Delivery** at checkout. [Details](#)

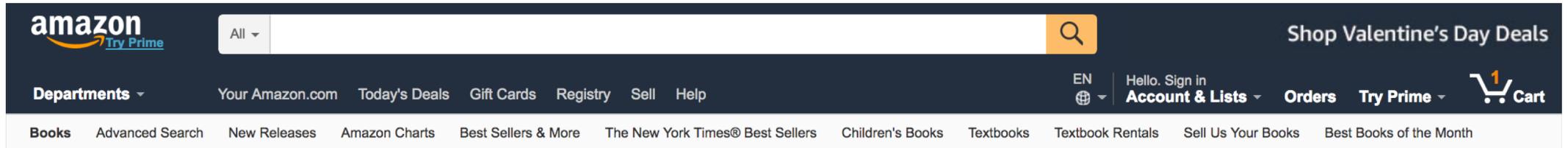
Ship to:
newyork, 10001 ▼

[Add to List](#)

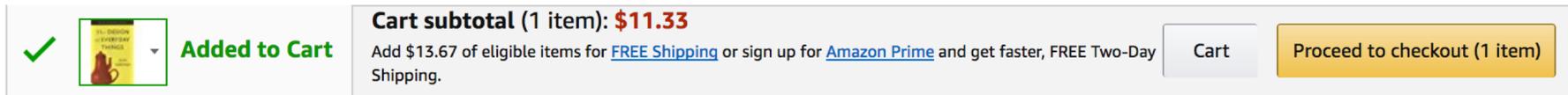
Goal: Buy a book

Subgoal: Checkout

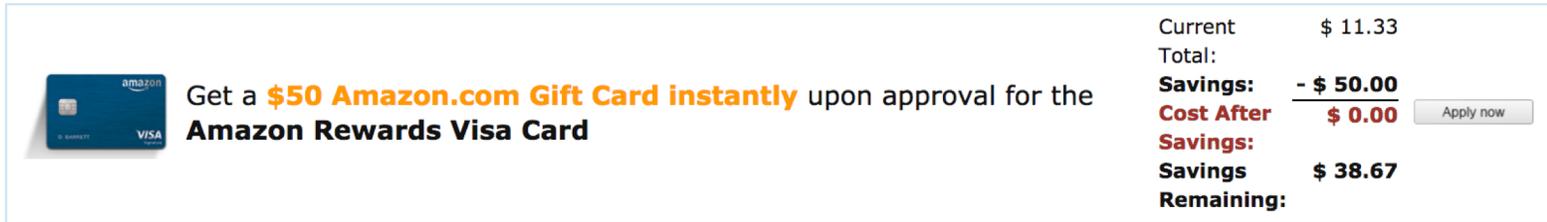
Interaction: Click "Proceed to checkout" button



The header of the Amazon website. It features the Amazon logo with 'Try Prime' on the left. A search bar with a dropdown menu set to 'All' and a magnifying glass icon is in the center. On the right, there's a link to 'Shop Valentine's Day Deals'. Below the search bar, there are navigation links for 'Departments', 'Your Amazon.com', 'Today's Deals', 'Gift Cards', 'Registry', 'Sell', and 'Help'. Further right, there are links for 'Hello, Sign in', 'Account & Lists', 'Orders', 'Try Prime', and a shopping cart icon with a '1' indicating one item. At the bottom of the header, there are category-specific links for 'Books', 'Advanced Search', 'New Releases', 'Amazon Charts', 'Best Sellers & More', 'The New York Times® Best Sellers', 'Children's Books', 'Textbooks', 'Textbook Rentals', 'Sell Us Your Books', and 'Best Books of the Month'.



A summary bar for the shopping cart. On the left, there's a green checkmark and a small book cover icon. The text 'Added to Cart' is in green. To the right, it says 'Cart subtotal (1 item): \$11.33'. Below this, it says 'Add \$13.67 of eligible items for FREE Shipping or sign up for Amazon Prime and get faster, FREE Two-Day Shipping.' On the far right, there are two buttons: a grey 'Cart' button and a yellow 'Proceed to checkout (1 item)' button.

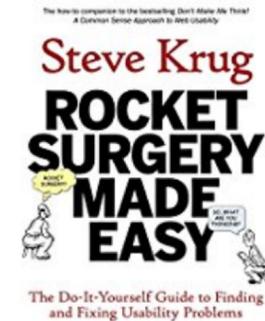
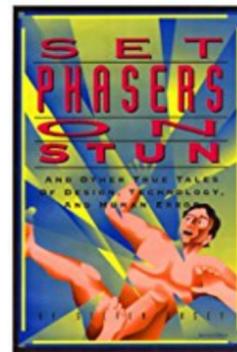
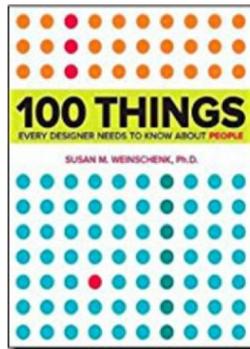
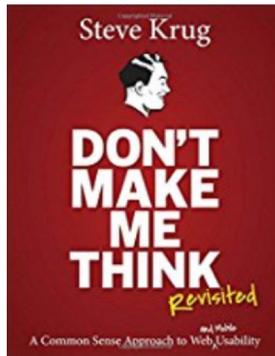


A promotional banner for the Amazon Rewards Visa Card. On the left is an image of the blue Visa card. The text says 'Get a \$50 Amazon.com Gift Card instantly upon approval for the Amazon Rewards Visa Card'. On the right, there is a table of costs and savings:

Current	\$ 11.33
Total:	
Savings:	- \$ 50.00
Cost After	\$ 0.00
Savings:	
Savings	\$ 38.67
Remaining:	

Below the table is an 'Apply now' button.

Customers also bought these highly rated items



Goal: Buy a book

Subgoal: Enter payment information

Interaction: Click, type, move cursor, click “Continue”

amazon.com  SIGN IN SHIPPING & PAYMENT GIFT OPTIONS PLACE ORDER



Secure Payment Info

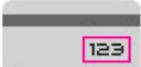
    

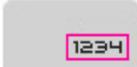
Name (as it appears on your card)

Card number (no dashes or spaces)

Expiration date

Security code (3 on back, Amex: 4 on front)

 123

 1234

You can review this order before it's final.

Goal: Buy a book

Subgoal: If information is correct, place order

Interaction: Click “place your order”

amazon.com [SIGN IN](#) [SHIPPING & PAYMENT](#) [GIFT-WRAP](#) [PLACE ORDER](#)

Review Your Order

By placing your order, you agree to Amazon.com's [privacy notice](#) and [conditions of use](#)

Shipping Address: Chris Customer 742 EVERGREEN TERRACE SPRINGFIELD, WV 20025 United States Phone: 1234567890 Change	Billing Information: Rewards Points  ending in 1234 Change Billing Address: Same as shipping address Change	Gift Cards & Promotional Codes: <input type="text"/> Apply	Place your order
---	--	--	----------------------------------

Estimated delivery: Sept. 26, 2011

 **Apple iPad Camera Connection Kit (MC531ZM/A)**
\$29.95
 [Quantity: 1 Change](#)
Sold by: -Media-Mart
[Add gift options](#)

Choose your  shipping speed:

- FREE Standard Shipping (3-5 business days)
- FREE Two-Day Shipping **—get it Monday, September 26**
- \$3.99/item One-Day Shipping **—get it Saturday, September 24**

Order Summary

Items:	\$29.95
Shipping & Handling:	\$0.00
Total Before Tax:	\$29.95
Estimated Tax To Be Collected:	\$0.00
Rewards Points	-\$4.58

Order Total: \$25.37

[How are shipping costs calculated?](#)
Amazon Prime Shipping has been applied to the eligible items in your order.

The designer must know the users' goals create the subgoals and interactions to meet it.

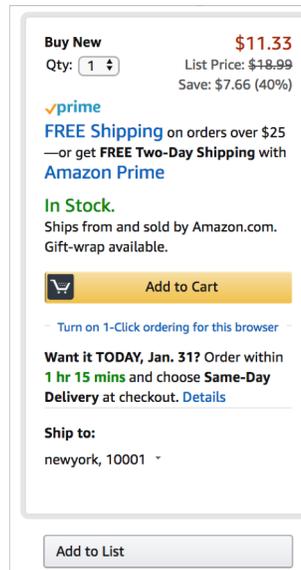
Goal: Buy a book

Subgoal: Find it

Interaction: Type, click

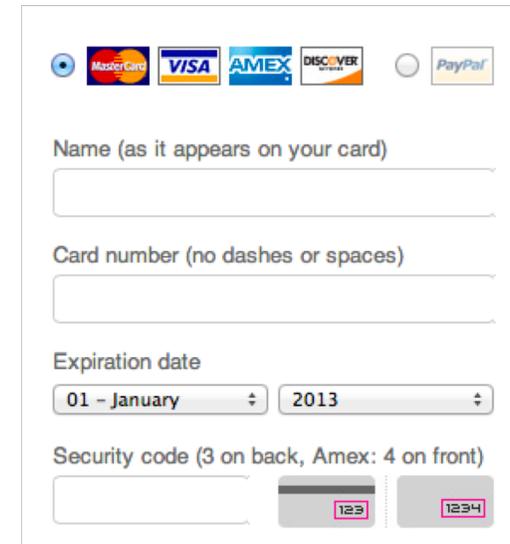


Subgoal: Add to cart
Interaction: click



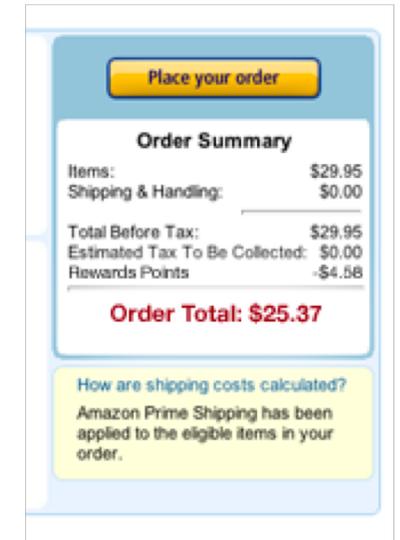
Subgoal: Enter payment info

Interaction: Type, click, point



Subgoal: Place order

Interaction: Click



The designer must know the users' goals
create the subgoals and interactions to meet it.

But sometimes on Amazon,
I don't have a goal.

I'm just browsing.

Are these sites “just for browsing”?

The screenshot shows the search results for 'columbia' on the Columbia website. The search bar at the top contains 'columbia' and shows 'About 1,450,000,000 results (1.21 seconds)'. Below the search bar, there are navigation tabs for 'All', 'Maps', 'News', 'Images', 'Shopping', 'More', 'Settings', and 'Tools'. The main content area features a header for 'Columbia.com | Official Columbia® Site | Outdoor Apparel & Products' with a rating of 4.8 stars. Below this, there are several promotional banners: 'Women's Gear' with 'Head-to-Toe Gear for the Months Ahead.', 'Men's Gear' with 'Gear Up for Epic Adventures Ahead.', '50% off Select Gear' with 'Save 50% on Select Gear', and 'Outdry Extreme Eco' with 'Made with 100% Recycled Materials'. At the bottom, there is a map of Columbia University and a list of 'Your past visits' including 'Columbia University'.

The screenshot shows the Craigslist website for New York City. The header includes the 'craigslist' logo, a 'create a posting' button, and a 'my account' link. A search bar is prominently displayed with the text 'search craigslist'. Below the search bar is an 'event calendar' table showing dates from 4 to 10. The main content area is divided into several sections: 'community' with links for activities, artists, childcare, classes, events, general, groups, and local news; 'services' with links for automotive, beauty, cell/mobile, creative, cycling, event, farm+garden, financial, help, faq, abuse, legal, avoid scams & fraud, privacy policy, system status, and craigslist is hiring in sf; and 'discussion forums' with links for android, apple, bitcoin, catholicism, christianity, communism, crypto, dating, diet, divorce, dying, eco, frugal, gaming, garden, geek, help, history, housing, jobs, jokes, legal, linux, manners, marriage, money, pets, philo, politics, religion, rofo, science, spirit, sports, super, tax, and travel. There is also a 'lost+found' section with links for missed, connections, musicians, pets, politics, rants & raves, rideshare, and volunteers.

The screenshot shows the Facebook website. The header features the 'facebook' logo. The main content area displays a post from 'PictureCorrect Photography Tips' with the text 'What is your Photography-Related New Year's Resolution??'. The post was made 15 minutes ago and has been liked by Adel Gomaa and Richard Schneider. Below the post, there are several comments from users like Sadi Molloy, Richard, James, and Jeacon Jonathan Jerome Johnson. At the bottom, there is a comment from Stefanie Bakewell. The interface includes a search bar, navigation tabs, and a list of recent posts.

No. Although people do browse, Sites are primarily designed to accomplish a goal. Browsing is secondary.

The designer must know the users goals and help them accomplish it.

The screenshot shows the Amazon website interface. At the top, the Amazon logo is on the left, and the search bar contains the text "design of everyday things". To the right of the search bar, there are links for "Shop Valentine's Day Deals", "EN", "Hello. Sign in Account & Lists", "Orders", "Try Prime", and a shopping cart icon with "0" items. Below the search bar, the text "1-16 of over 6,000 results for 'design of everyday things'" is displayed, along with a "Sort by" dropdown menu set to "Relevance".

On the left side, there is a sidebar with several sections: "FREE Shipping" (with a note that all customers get free shipping on orders over \$25), "Show results for" (with sub-sections for "Books" and "Kindle Store"), and "Refine by" (with an "Amazon Fresh" section). The "Books" section lists categories like "Popular Applied Psychology" and "Medical Applied Psychology". The "Kindle Store" section lists categories like "Applied Psychology" and "Retailing Industry".

The main content area displays two book listings. The first listing is for "The Design of Everyday Things: Revised and Expanded Edition" by Don Norman, published on Nov 5, 2013. It is marked as a "Best Seller" and has a 5-star rating with 277 reviews. The paperback price is \$11.33 (reduced from \$18.99) and is available with Prime. It also offers a Kindle Edition for \$11.99. The second listing is for "The Design of Everyday Things" by Donald A. Norman, published on Sep 19, 2002. It has a 4.5-star rating with 301 reviews. The paperback price is \$3.22 (147 used & new offers). It also offers an Audible Audio Edition for \$0.00, which is free with an Audible trial. Other formats include MP3 CD. A link to "See newer edition of this book" is provided.

Low-level Interactions



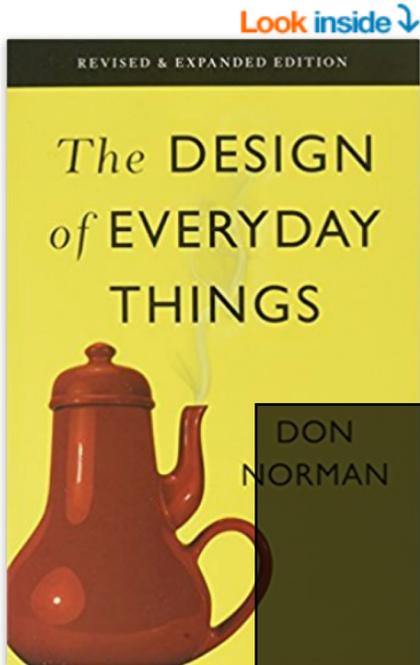
What are interactions on this page?

Departmen

Books Ad

Back to search

The Design of Everyday Things: Revised and Expanded Edition and over one million other books are available for Amazon Kindle. Learn more



Look inside

The Design of Everyday Things: Revised and Expanded Edition Paperback –

November 5, 2013

by Don Norman (Author)

★★★★★ 277 customer reviews

#1 Best Seller in Retailing Industry

See all 2 formats and editions

Kindle \$11.99

Paperback \$11.33

Read with Our Free App

62 Used from \$4.93
62 New from \$5.33
5 Collectible from \$9.00

Move

Click

Type

Share <Embed>

Buy New \$11.33
Qty: 1
List Price: \$18.99
Save: \$7.66 (40%)

prime
FREE Shipping on orders over \$25
—or get FREE Two-Day Shipping with Amazon Prime

In Stock.
Ships from and sold by Amazon.com.
Gift-wrap available.

Add to Cart

Turn on 1-Click ordering for this browser

Want it TODAY, Jan. 31? Order within 1 hr 15 mins and choose Same-Day Delivery at checkout. Details

Ship to: newyork, 10001



See all 4 images

Read more

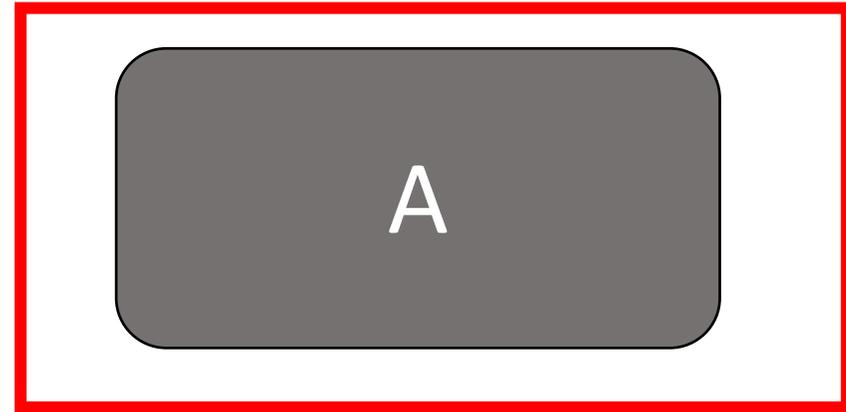


The Amazon Book Review
Author interviews, book reviews, editors picks, and more. Read it now

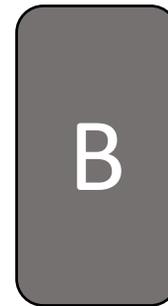
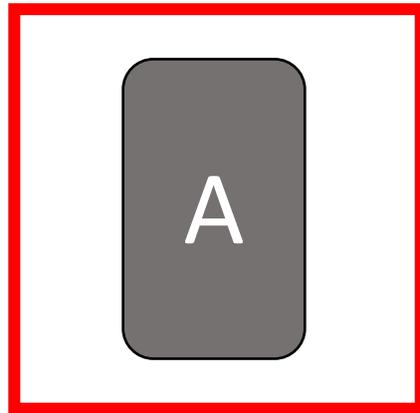
Add to List

Interaction: Moving + Clicking

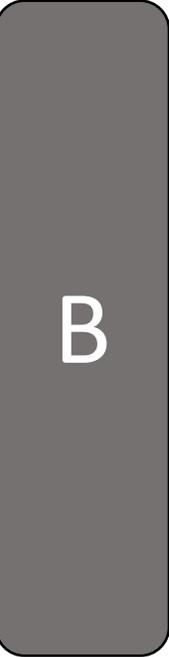
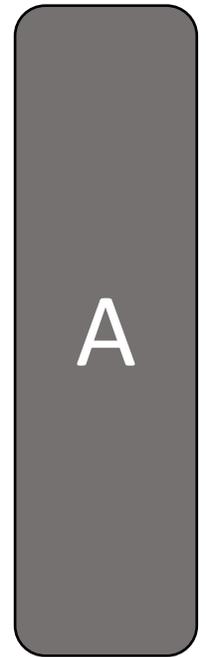
Which button is faster to click?



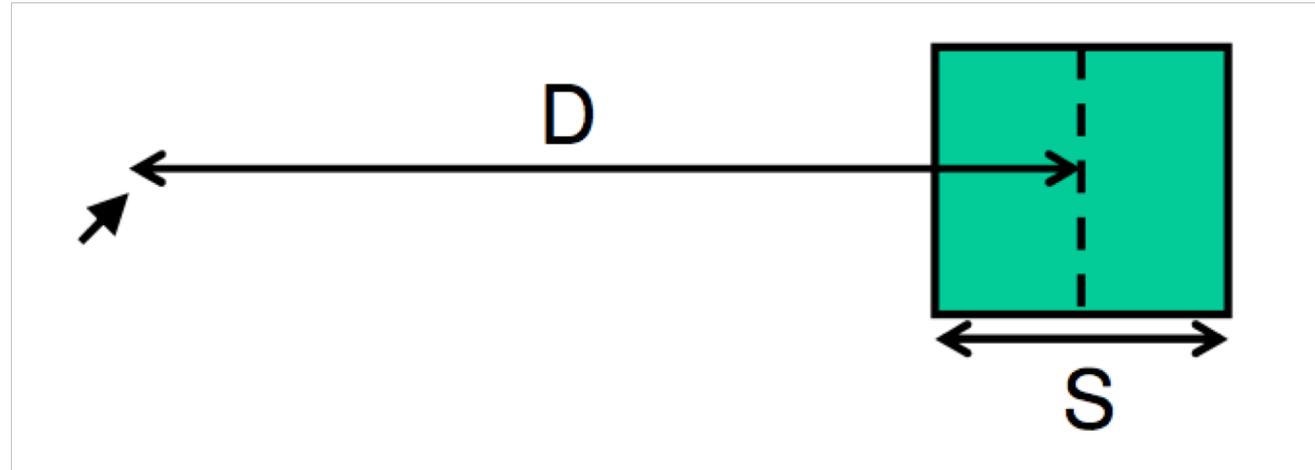
Which button is faster to click?



Which button is faster to click?



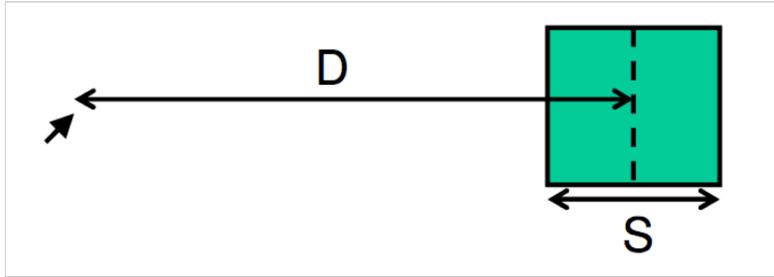
Fitts's Law



Time to move your
pointer to a target

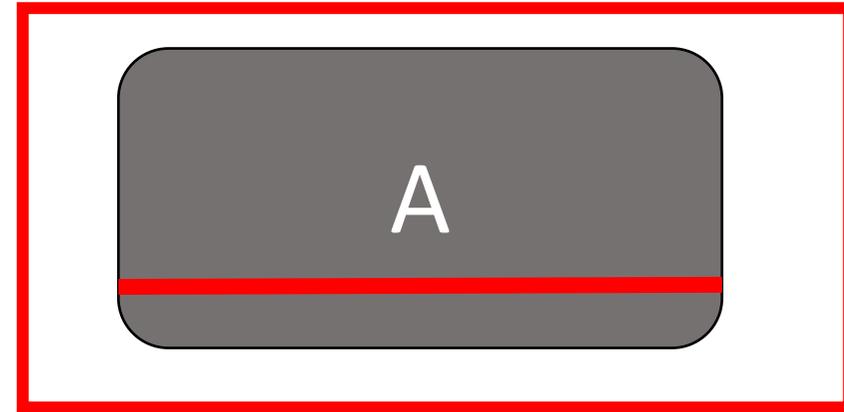
$$= a + b * \log \left(\frac{2D}{S} \right)$$

Using Fitts' law, why is A faster to click?

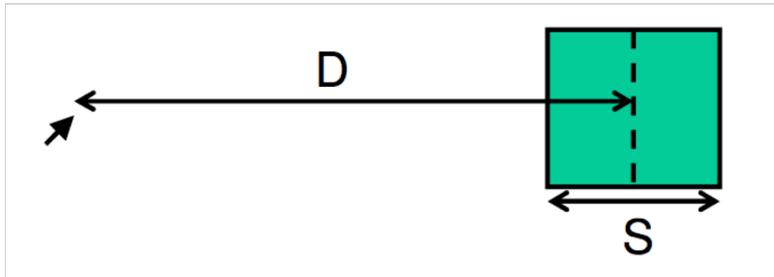


$$= a + b * \log \left(\frac{2D}{S} \right)$$

S is bigger.
Thus the time is lower.

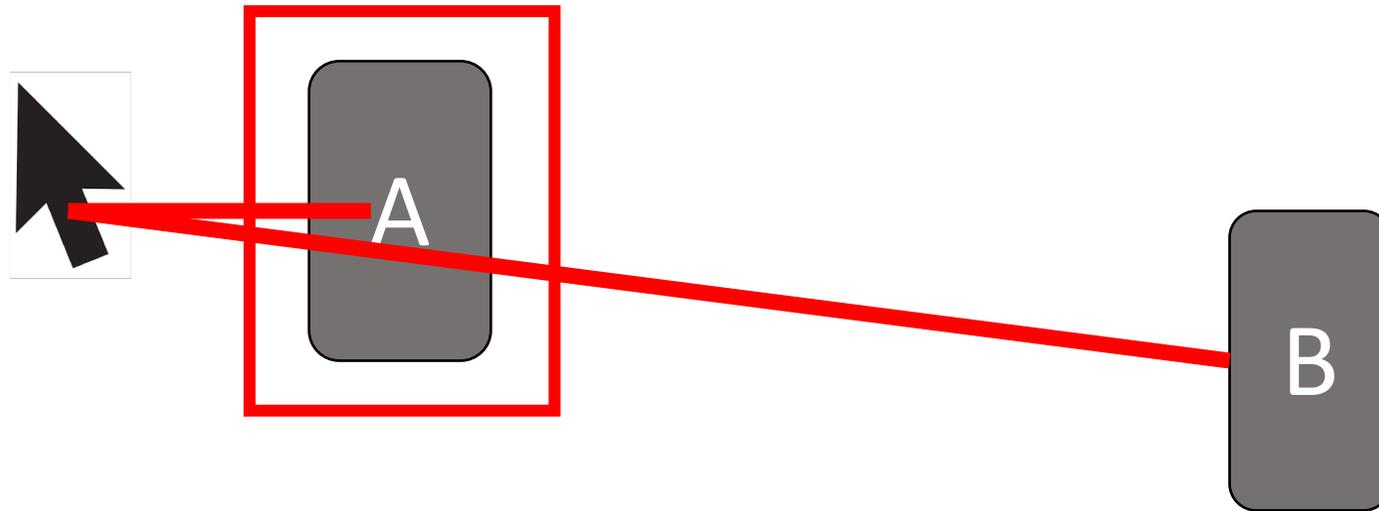


Using Fitts' law, why is A faster to click?

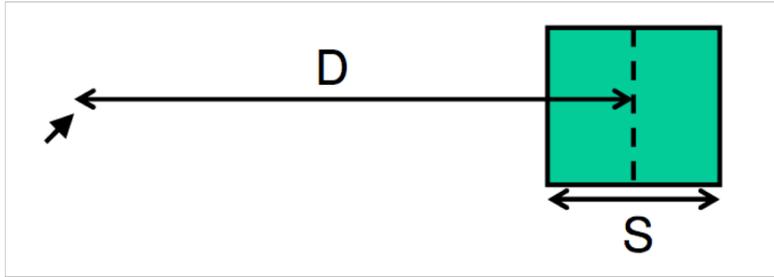


$$= a + b * \log \left(\frac{2D}{S} \right)$$

D is small.
Thus the time is lower.

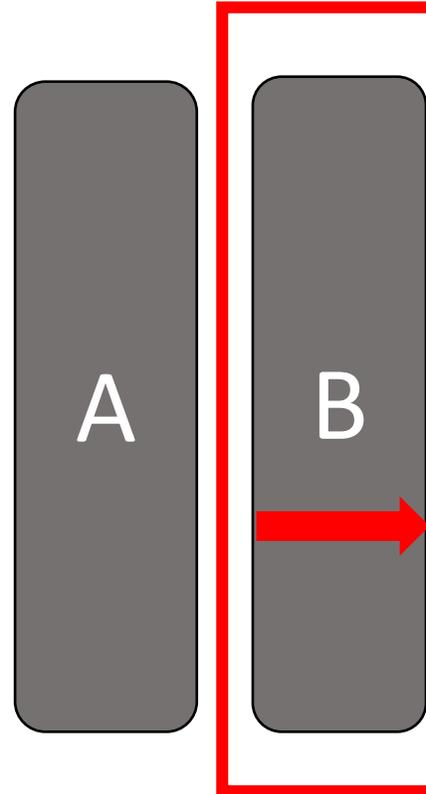


Using Fitts' law, why is B faster to click?

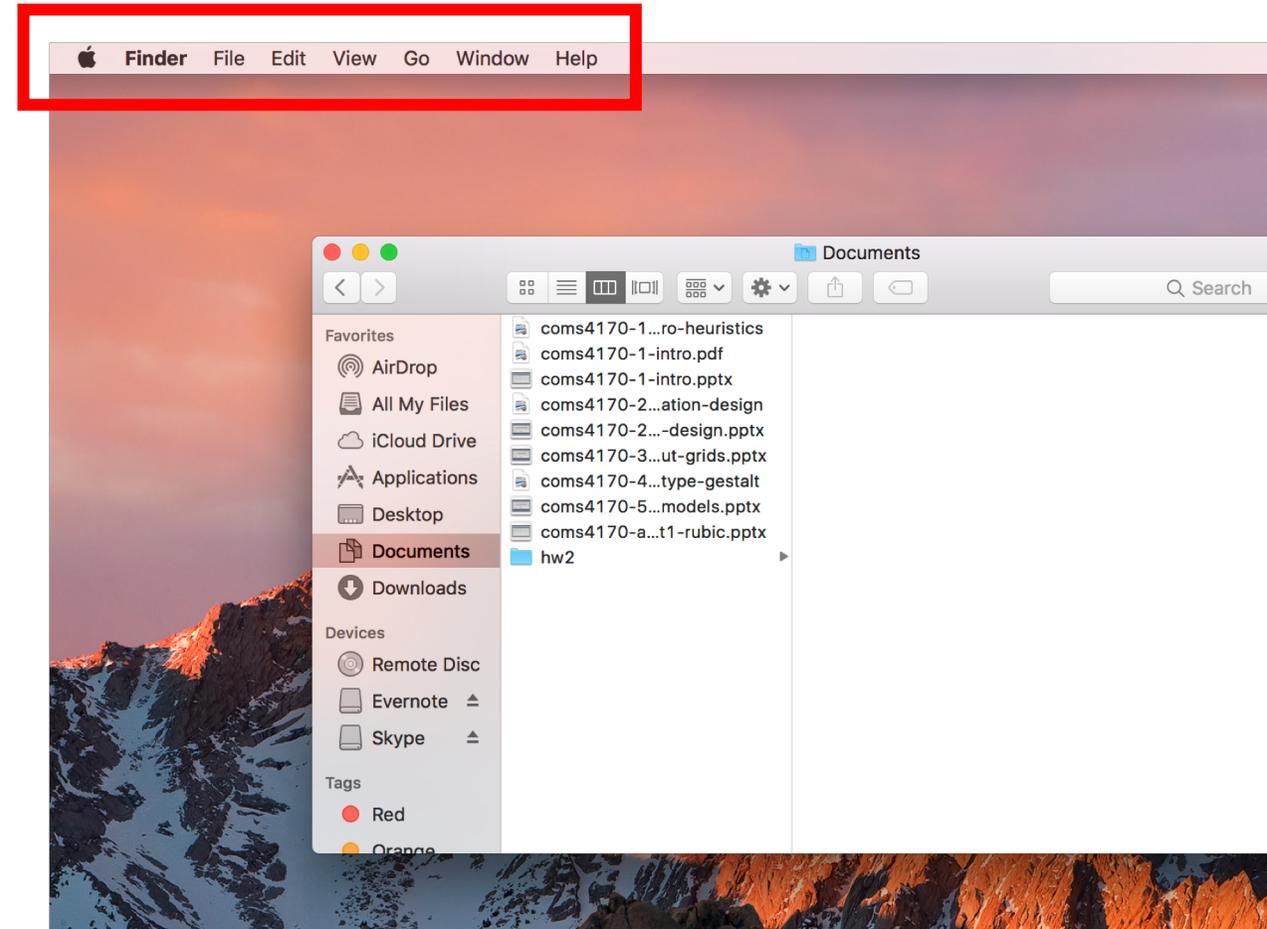
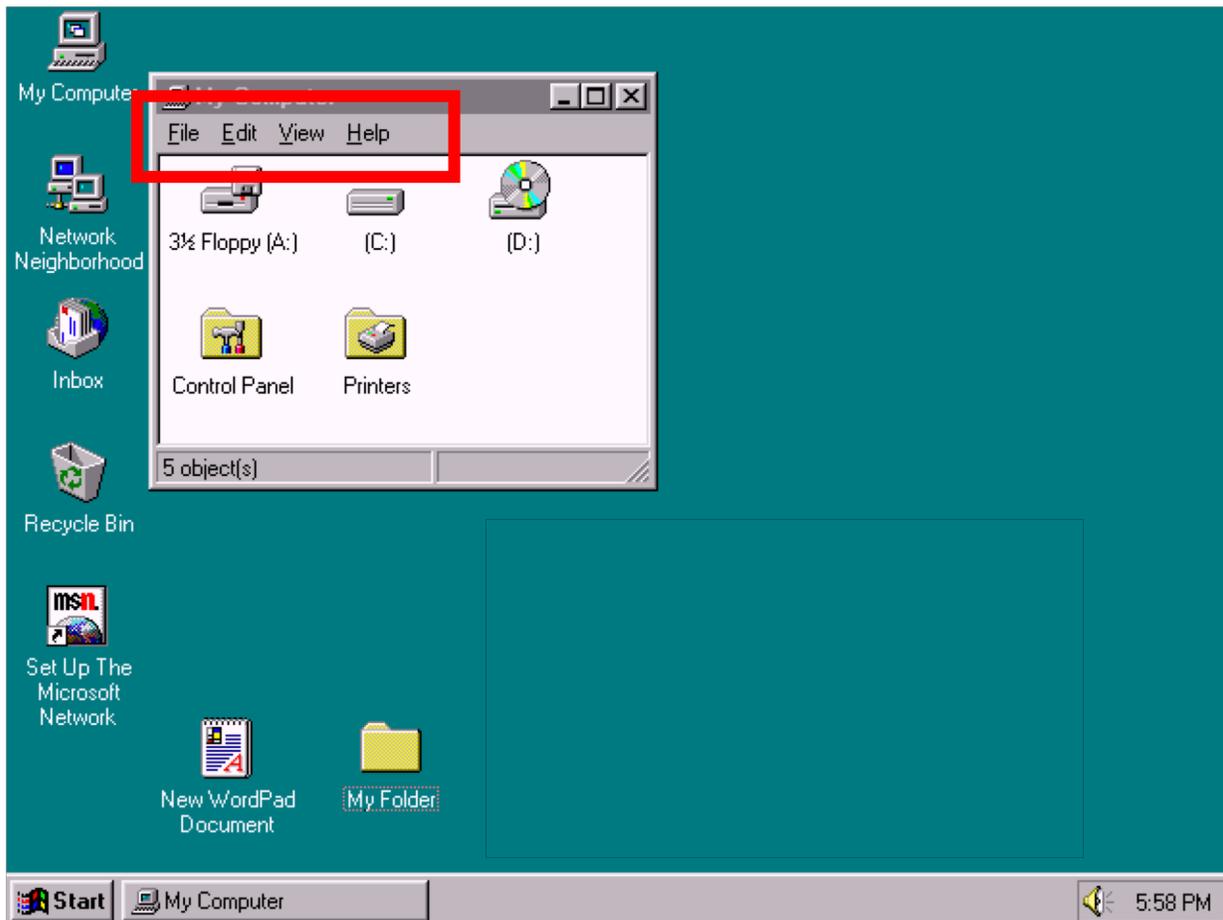


$$= a + b * \log \left(\frac{2D}{S} \right)$$

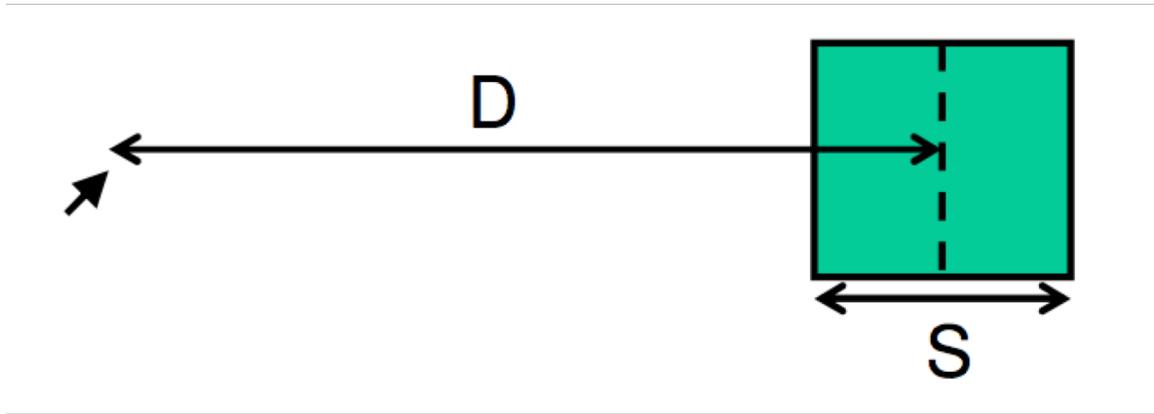
S is bigger (infinite).
Thus the time is lower.



Why did iOS move the menu for applications?



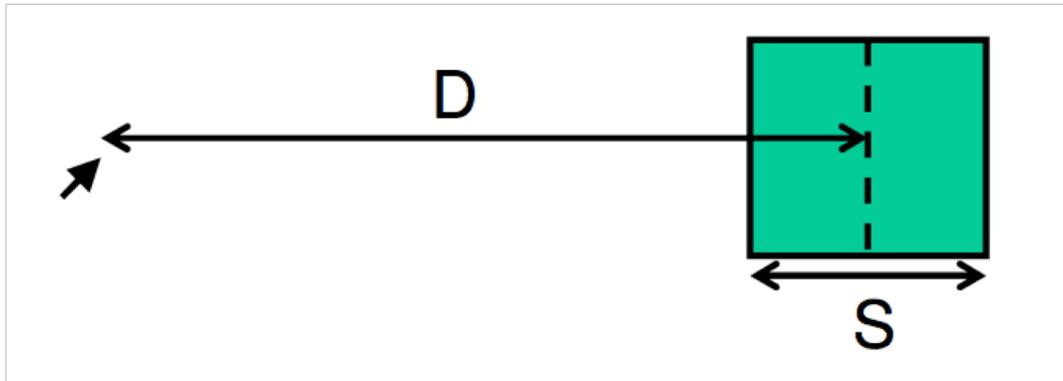
Fitts's Law: What are **a** and **b**?



$$\text{time} = \mathbf{a} + \mathbf{b} * \log \left(\frac{2D}{s} \right)$$



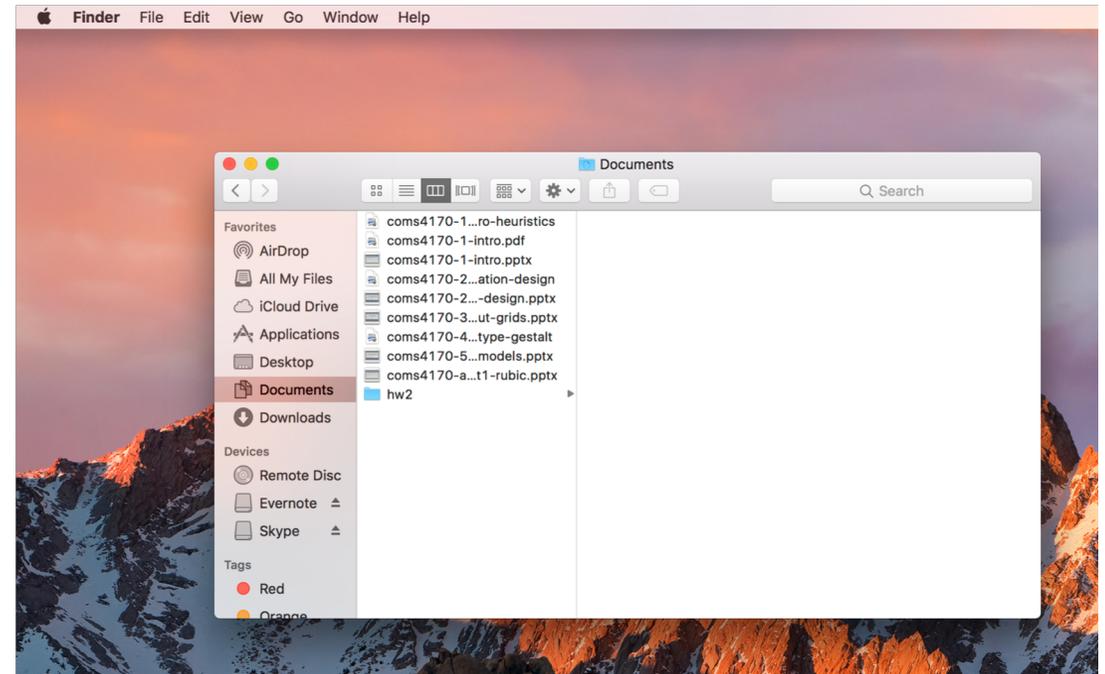
Time to move the pointer: Fitts's Law



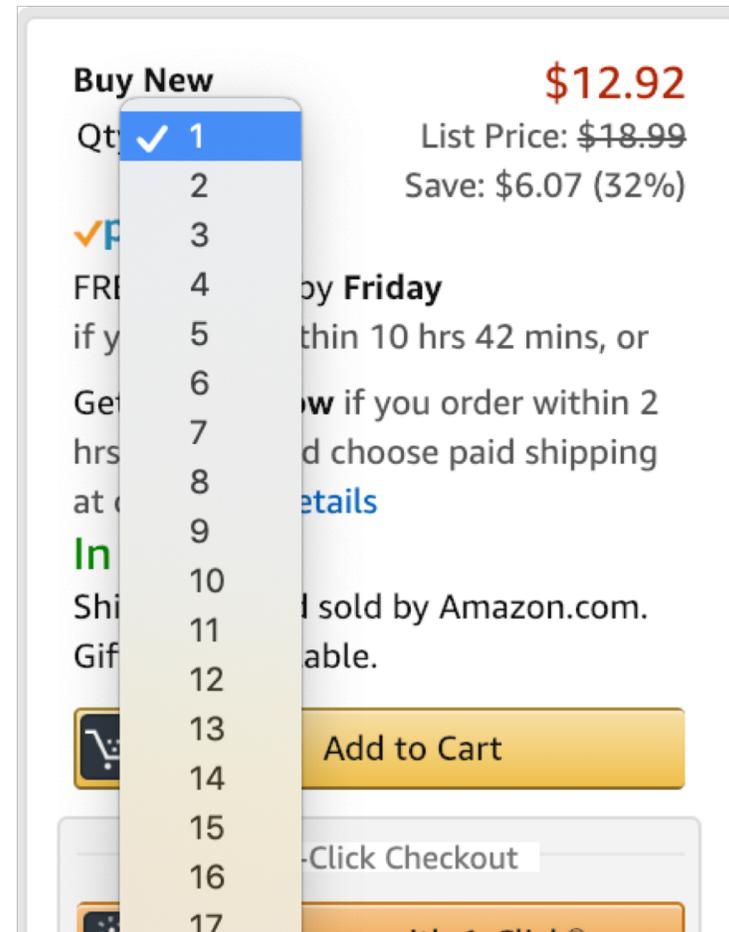
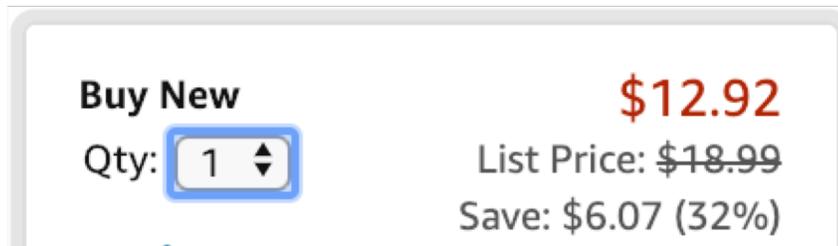
Time to move your
pointer to a target

$$= a + b * \log \left(\frac{2D}{S} \right)$$

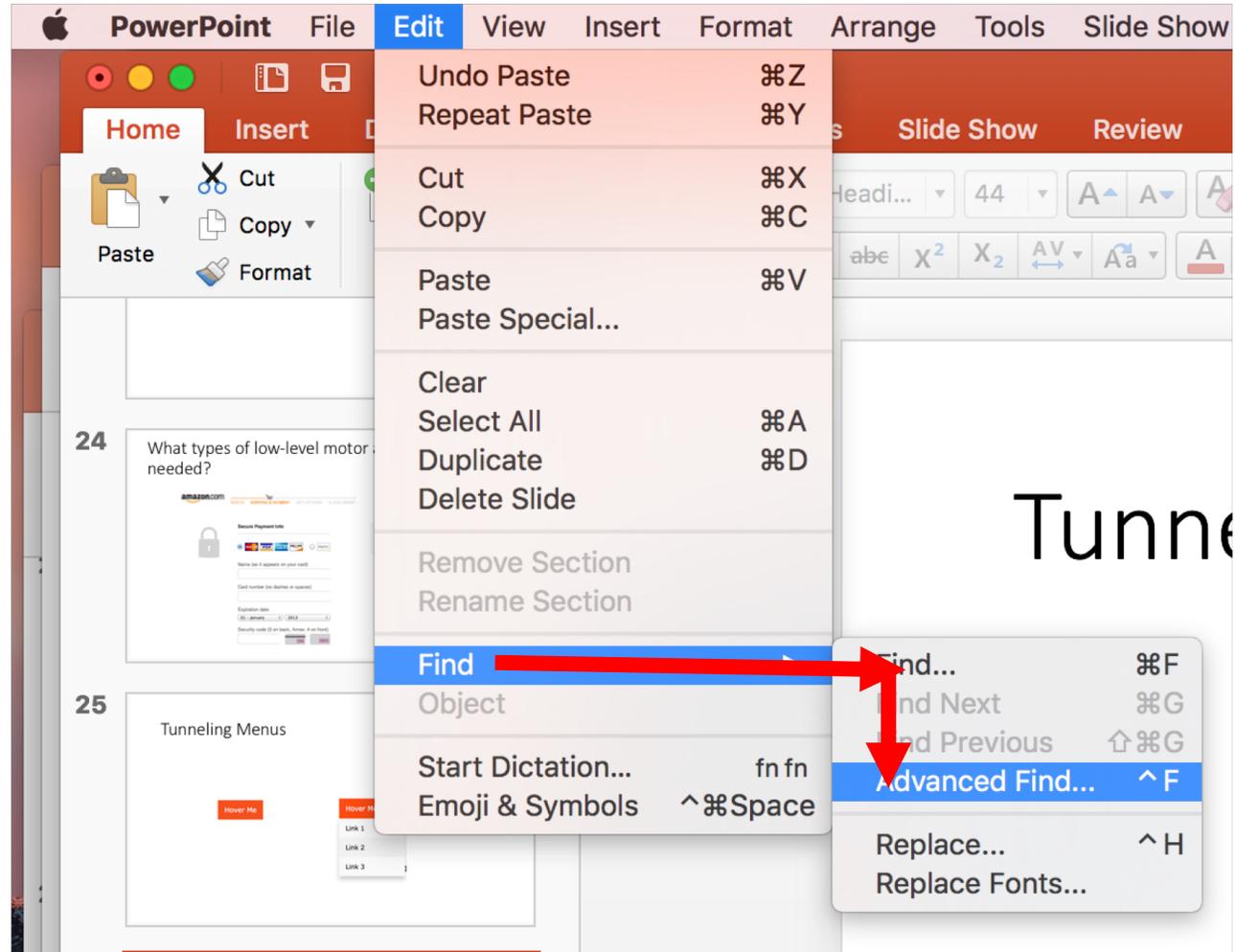
Buttons on the edges are fast to get to
because they have infinite size



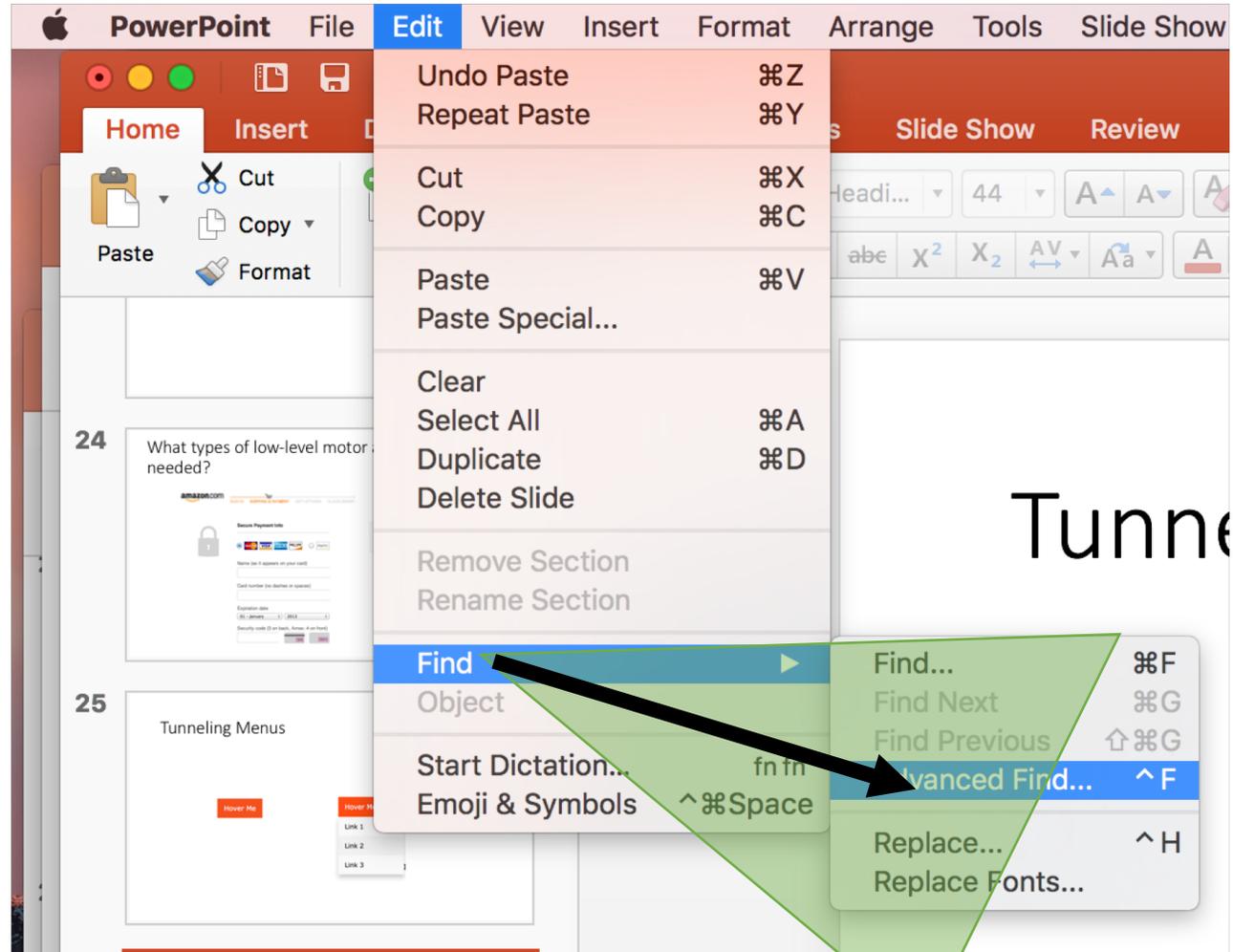
More moving + clicking: Tunneling Menus



More moving + clicking: Cascading Tunnel Menus



More moving + clicking: Cascading Tunnel Menus fix



What are all the low-level interactions are needed to accomplish this subgoal?



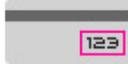
Secure Payment Info

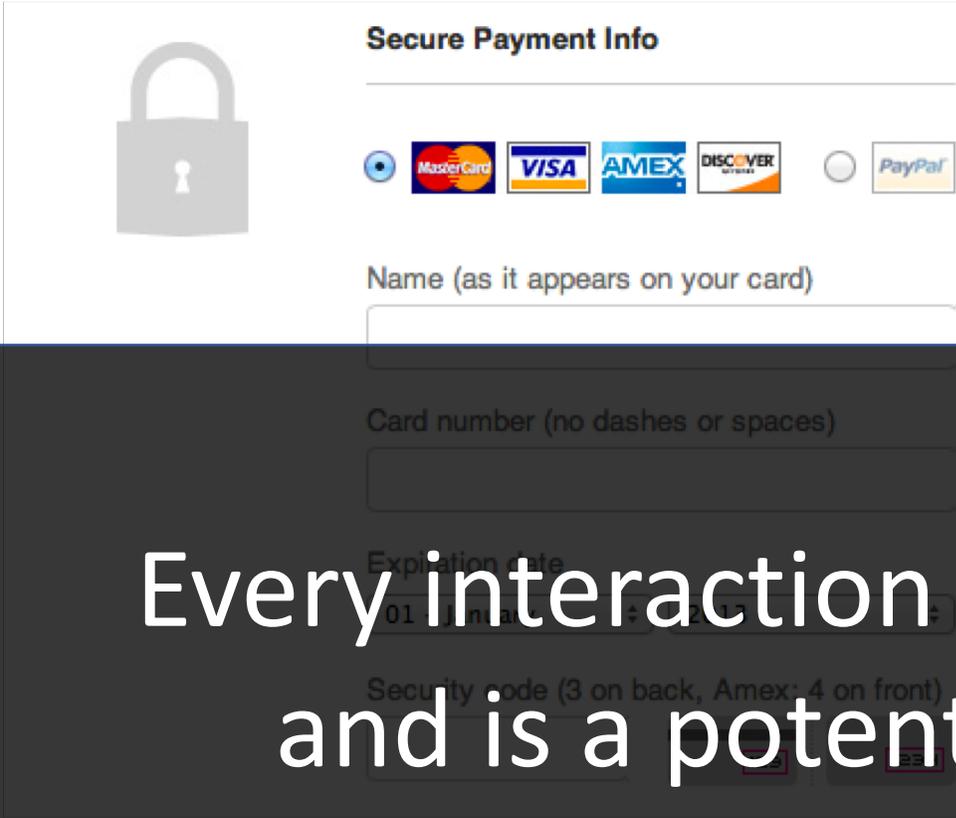
MasterCard VISA AMEX DISCOVER PayPal

Name (as it appears on your card)

Card number (no dashes or spaces)

Expiration date

Security code (3 on back, Amex: 4 on front)
  



Secure Payment Info

MasterCard VISA AMEX DISCOVER PayPal

Name (as it appears on your card)

Card number (no dashes or spaces)

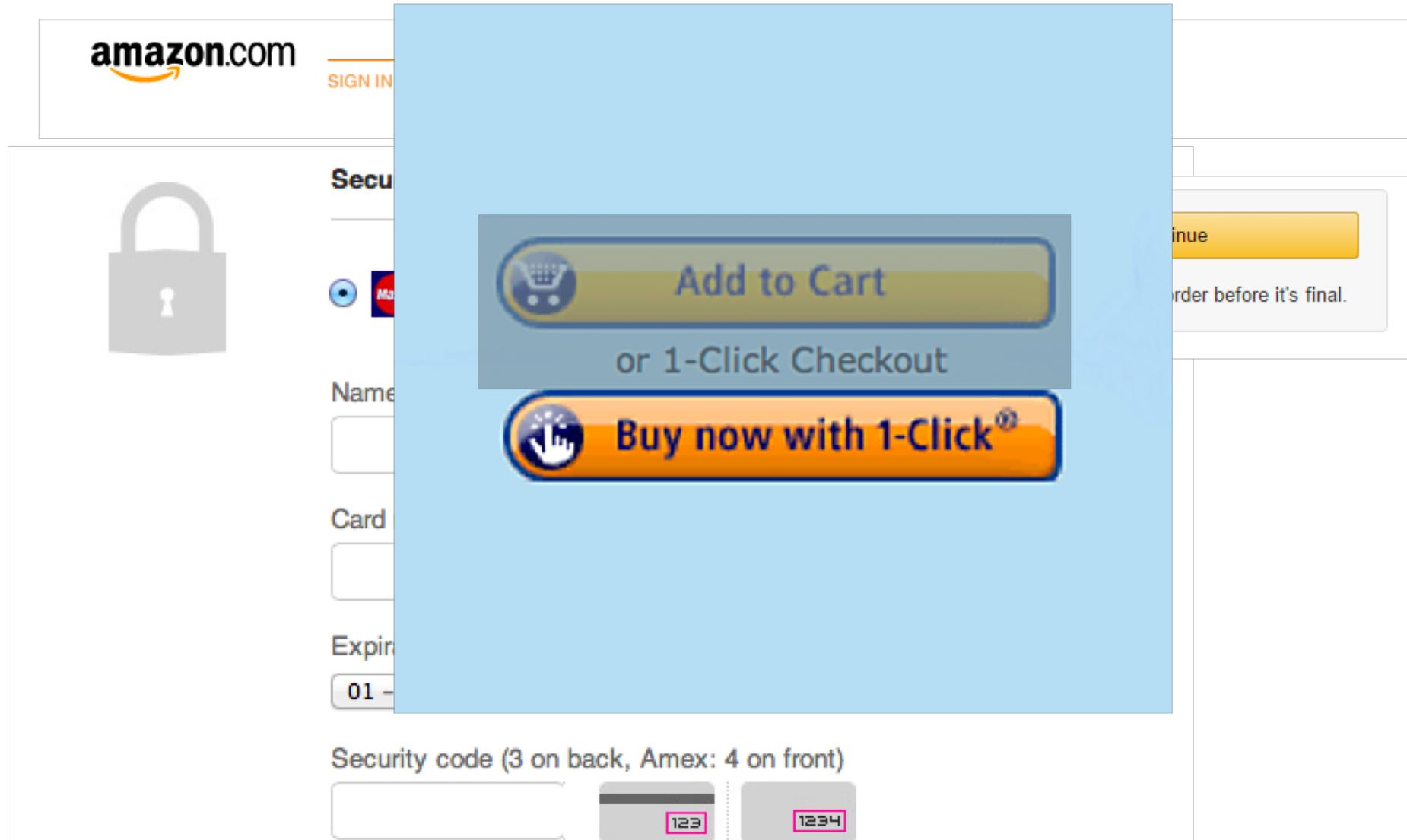
Expiration date
01 Jan 2017 - 12 31 2017

Security code (3 on back, Amex: 4 on front)

Every interaction takes time and effort,
and is a potential source of error.

Move
Click
Move
Click
TypeTypeTypeType
Move
Click
TypeTypeTypeType
Move
TypeTypeTypeType
Click
Move
TypeTypeTypeType
Click
TypeTypeTypeType

How could you improve this?



The image shows a portion of an Amazon checkout page. At the top left is the Amazon logo and the text "amazon.com". To its right is a "SIGN IN" link. Below the logo is a large grey padlock icon. The page contains several form fields: "Name", "Card", and "Expiration" (with "01" visible). Below these is a "Security code" field with a note "(3 on back, Amex: 4 on front)" and two input boxes containing "123" and "1234". A blue rectangular overlay is centered on the page, containing two buttons: "Add to Cart" (with a shopping cart icon) and "Buy now with 1-Click" (with a hand cursor icon). The text "or 1-Click Checkout" is positioned between the two buttons. To the right of the overlay, a yellow "Continue" button is visible, along with the text "order before it's final."

amazon.com

SIGN IN

Secu

in

order before it's final.

Name

Card

Expiration

01

Security code (3 on back, Amex: 4 on front)

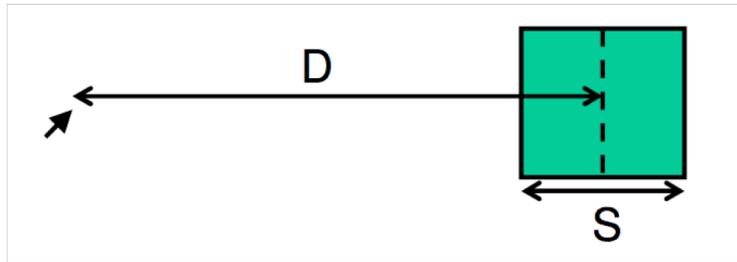
123 1234

Add to Cart

or 1-Click Checkout

Buy now with 1-Click[®]

Low-level Interactions take time and effort. Minimize them because you do them a lot.



 **Secure Payment Info**

Name (as it appears on your card)

Card number (no dashes or spaces)

Expiration date
01 - January ▾ 2013 ▾

Security code (3 on back, Amex: 4 on front)
  

 **Add to Cart**
or 1-Click Checkout

 **Buy now with 1-Click®**

The Interaction Loop

Establish a goal: Buy a book.

The screenshot shows the Amazon website interface with search results for "design of everyday things". The search bar at the top contains the text "design of everyday things" and a magnifying glass icon. The navigation bar includes the Amazon logo, "Try Prime", and various menu items like "Departments", "Your Amazon.com", "Today's Deals", "Gift Cards", "Registry", "Sell", "Help", "EN", "Hello, Sign in", "Account & Lists", "Orders", "Try Prime", and "Cart".

The search results are displayed on a white background with a dark blue header. The search results are sorted by "Relevance". The first result is "The Design of Everyday Things: Revised and Expanded Edition" by Don Norman, published on Nov 5, 2013. It is marked as a "Best Seller" and has a 5-star rating with 277 reviews. The paperback price is \$11.33, down from \$18.99, and it is available for Prime. The Kindle Edition is \$11.99. The second result is "The Design of Everyday Things" by Donald A. Norman, published on Sep 19, 2002. It has a 4.5-star rating with 301 reviews. The paperback price is \$3.22. The Audible Audio Edition is \$0.00. The third result is "Emotional Design: Why We Love (or Hate) Everyday Things" by Donald A. Norman, published on May 11, 2005. It has a 4.5-star rating with 61 reviews. The paperback price is \$12.74, down from \$17.99, and it is available for Prime. The Kindle Edition is \$11.99.

amazon Try Prime All design of everyday things Search Shop Valentine's Day Deals

Departments Your Amazon.com Today's Deals Gift Cards Registry Sell Help EN Hello, Sign in Account & Lists Orders Try Prime Cart

1-16 of over 6,000 results for "design of everyday things" Sort by Relevance

FREE Shipping
All customers get FREE Shipping on orders over \$25 shipped by Amazon

Show results for

Books
Popular Applied Psychology
Medical Applied Psychology
Business & Money
Industrial & Product Design
Retailing Industry
See more

Kindle Store
Applied Psychology
Retailing Industry
Consumer Behavior
Business & Investing
Web Site Design
See more
See All 15 Departments

Refine by

AmazonFresh
 fresh

Delivery Day
 Get It Today
 Get It by Tomorrow

Amazon Prime
 prime

Eligible for Free Shipping
 Free Shipping by Amazon

Book Language
 English

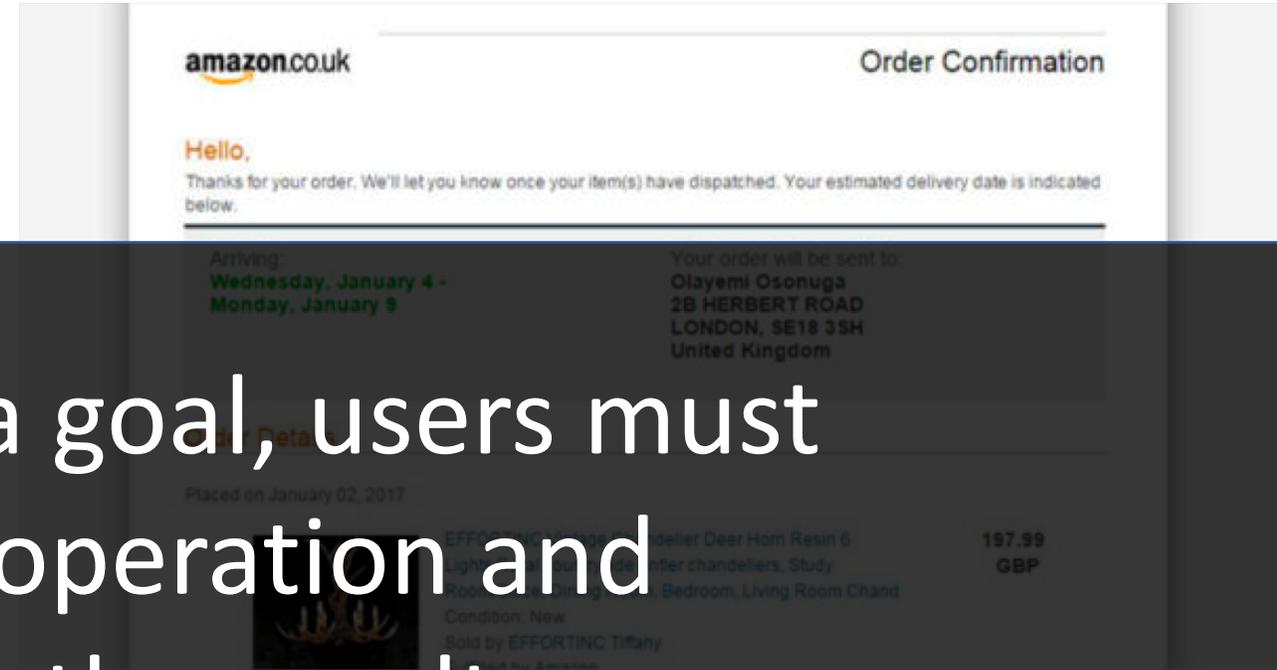
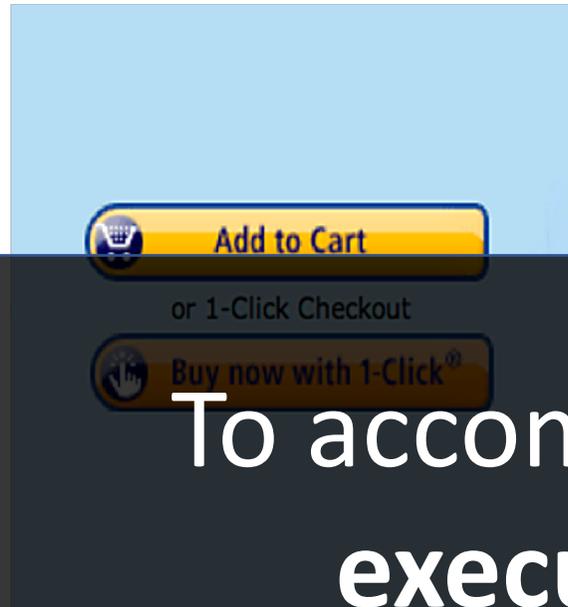
Best Seller

The Design of Everyday Things: Revised and Expanded Edition Nov 5, 2013
by Don Norman
Paperback \$11.33 ~~\$18.99~~ prime
Get it by **TODAY, Jan 31**
FREE Shipping on eligible orders
More Buying Choices \$4.93 (129 used & new offers)
Kindle Edition \$11.99
Get it **TODAY, Jan 31**

The Design of Everyday Things Sep 19, 2002
by Donald A. Norman
Paperback \$3.22 (147 used & new offers)
Audible Audio Edition \$0.00
Free with Audible trial
Other Formats: MP3 CD
See newer edition of this book

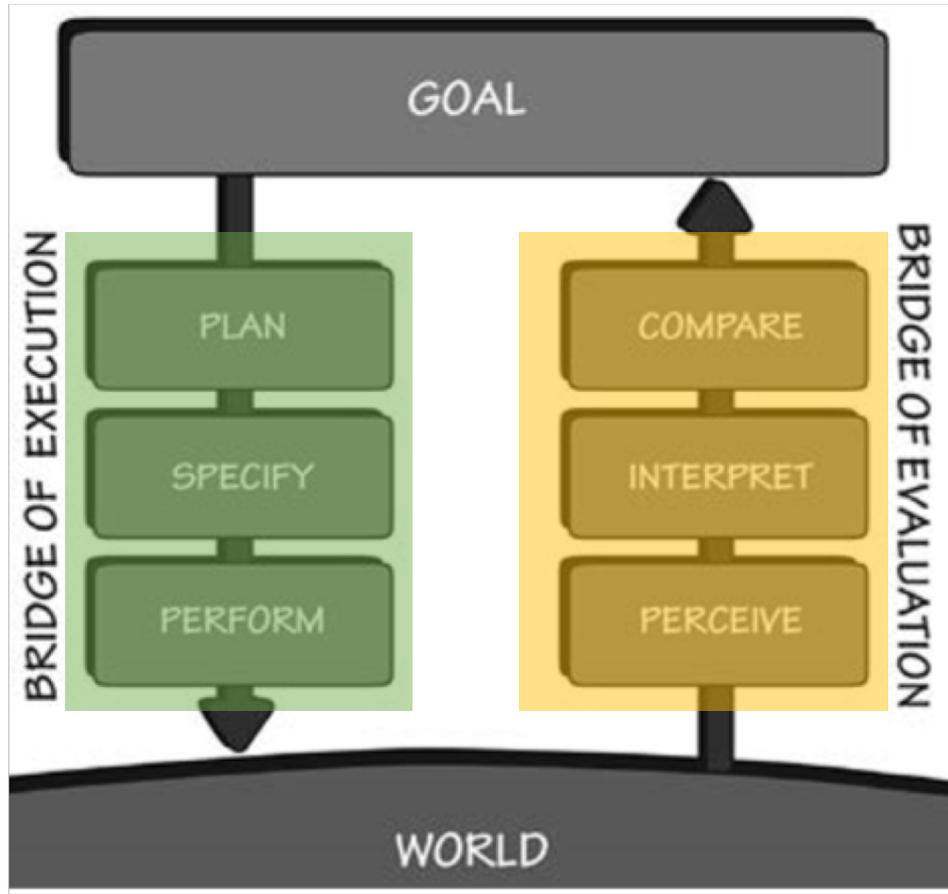
Emotional Design: Why We Love (or Hate) Everyday Things May 11, 2005
by Donald A. Norman
Paperback \$12.74 ~~\$17.99~~ prime
Get it by **TODAY, Jan 31**
FREE Shipping on eligible orders
More Buying Choices \$3.48 (127 used & new offers)
Kindle Edition \$11.99
Get it **TODAY, Jan 31**
Other Formats: Hardcover

What happens after you place an order?



To accomplish a goal, users must
execute an operation and
evaluate the result

The Seven Stages of Action



1. Form the goal

2. Plan the action

3. Specify the action sequence

4. Perform the action sequence

5. Perceive the state of the world

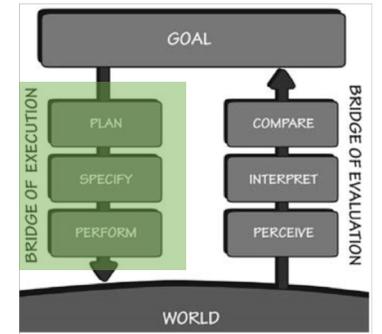
6. Interpret the perception

7. Compare the outcome with the goal

Goal Execution Step 1: Plan the action

Specify the action sequence

Perform the action sequence



amazon Try Prime

Books design of everyday things

Shop Valentine's Day Deals

Departments Your Amazon.com Today's Deals Gift Cards Registry Sell Help

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prime student 50% off Prime for College Students. LEARN MORE

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The Design of Everyday Things: Revised and Expanded Edition and over one million other books are available for Amazon Kindle. Learn more

The Design of Everyday Things: Revised and Expanded Edition Paperback – November 5, 2013
by Don Norman (Author)
★★★★☆ 277 customer reviews
#1 Best Seller in Retailing Industry

See all 2 formats and editions

Kindle \$11.99	Paperback \$11.33
-------------------	----------------------

Read with Our Free App 62 Used from \$4.93
62 New from \$5.33
5 Collectible from \$9.00

Even the smartest among us can feel inept as we fail to figure out which light switch or oven burner to turn on, or whether to push, pull, or slide a door. The fault, argues this ingenious—even liberating—book, lies not in ourselves, but in product design that ignores the needs of users and the principles of cognitive psychology. The problems range from ambiguous and hidden controls to arbitrary relationships between controls and functions, coupled with a lack of feedback or other assistance and unreasonable demands on memorization. *The Design of Everyday Things* shows that good, usable design is possible. The rules

Read more

The Amazon Book Review
Author interviews, book reviews, editors picks, and more. Read it now

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newyork, 10001

Add to Cart
or 1-Click Checkout
Buy now with 1-Click®

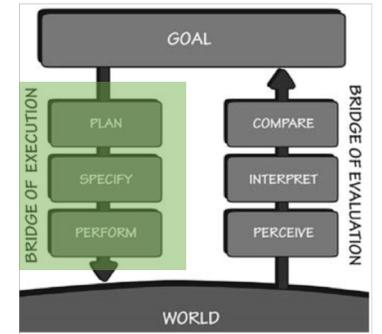
Add to List

Goal Execution Step 2:

Plan the action

Specify the action sequence

Perform the action sequence



amazon [Try Prime](#)

Books design of everyday things

Shop Valentine's Day Deals

Departments Your Amazon.com Today's Deals Gift Cards Registry Sell Help

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prime student 50% off Prime for College Students. [LEARN MORE](#)

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The Design of Everyday Things: Revised and Expanded Edition Paperback –

November 5, 2013
by Don Norman (Author)
★★★★☆ 277 customer reviews

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The Amazon Book Review
Author interviews, book reviews, editors picks, and more. [Read it now](#)

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newyork, 10001

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or 1-Click Checkout
Buy now with 1-Click®

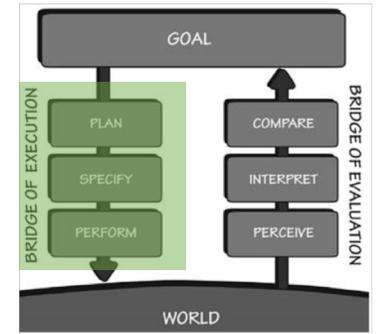
Add to List

Goal Execution Step 3:

Plan the action

Specify the action sequence

Perform the action sequence



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Departments Your Amazon.com Today's Deals Gift Cards Registry Sell Help EN Hello, Sign in Account & Lists Orders Try Prime [0](#) Cart

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The DESIGN of EVERYDAY THINGS
DON NORMAN

The Design of Everyday Things: Revised and Expanded Edition Paperback – November 5, 2013
by Don Norman (Author)
★★★★☆ 277 customer reviews
#1 Best Seller in Retailing Industry

See all 2 formats and editions

Kindle \$11.99	Paperback \$11.33
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Read with Our Free App 62 Used from \$4.93
62 New from \$5.33
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Even the smartest among us can feel inept as we fail to figure out which light switch or oven burner to turn on, or whether to push, pull, or slide a door. The fault, argues this ingenious—even liberating—book, lies not in ourselves, but in product design that ignores the needs of users and the principles of cognitive psychology. The problems range from ambiguous and hidden controls to arbitrary relationships between controls and functions, coupled with a lack of feedback or other assistance and unreasonable demands on memorization. *The Design of Everyday Things* shows that good, usable design is possible. The rules

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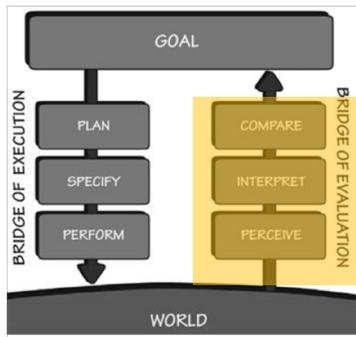
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or 1-Click Checkout
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Want it TODAY, Jan. 31? Order within **1 hr 15 mins** and choose **Same-Day Delivery** at checkout. [Details](#)

Ship to:
newyork, 10001

[Add to List](#)



Goal Evaluation Step 1: Perceive the State of the world

amazon.co.uk Order Confirmation

Hello,
Thanks for your order. We'll let you know once your item(s) have dispatched. Your estimated delivery date is indicated below.

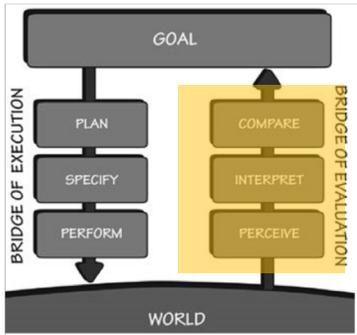
<p>Arriving:</p> <p>Wednesday, January 4 - Monday, January 9</p>	<p>Your order will be sent to:</p> <p>Olayemi Osonuga 2B HERBERT ROAD LONDON, SE18 3SH United Kingdom</p>
--	---

Order Details

Placed on January 02, 2017

	<p>EFFORTING Vintage Chandelier Deer Horn Resin 6 Lights,Rural countryside antler chandeliers, Study Rooms/Office, Dining Room, Bedroom, Living Room Chand</p> <p>Condition: New</p> <p>Sold by EFFORTING Tiffany</p> <p><small>Fulfilled by Amazon</small></p>	<p>197.99 GBP</p>
---	--	-------------------------------------

Goal Evaluation Step 2: Interpret the perception



amazon.co.uk Order Confirmation

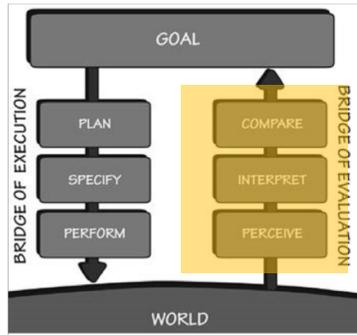
Hello,
Thanks for your order. We'll let you know once your item(s) have dispatched. Your estimated delivery date is indicated below.

Arriving: Wednesday, January 4 - Monday, January 9	Your order will be sent to: Olayemi Osonuga 2B HERBERT ROAD LONDON, SE18 3SH United Kingdom
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Order Details

Placed on January 02, 2017

	EFFORTING Vintage Chandelier Deer Horn Resin 6 Lights, Rural countryside antler chandeliers, Study Rooms/Office, Dining Room, Bedroom, Living Room Chand Condition: New Sold by EFFORTING Tiffany <small>Fulfilled by Amazon</small>	197.99 GBP
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Goal Evaluation Step 3: Compare the outcome with the goal

amazon.co.uk Order Confirmation

Hello,
Thanks for your order. We'll let you know once your item(s) have dispatched. Your estimated delivery date is indicated below.

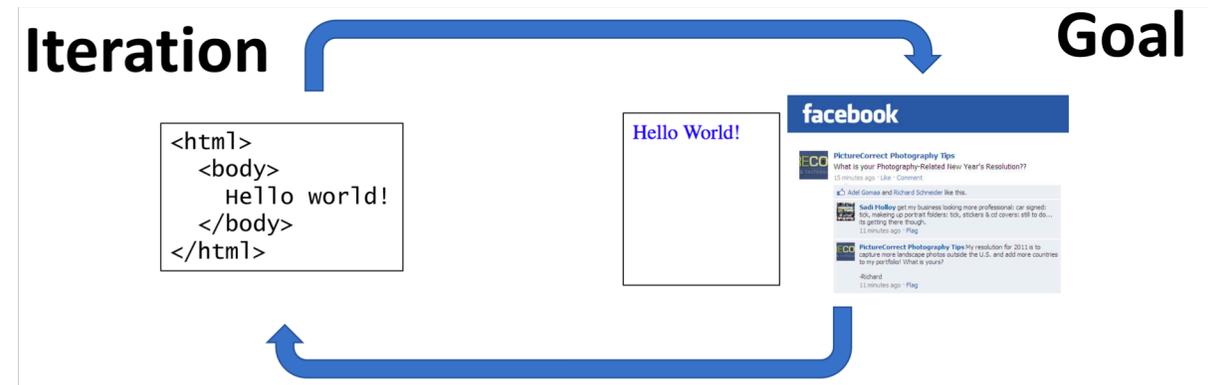
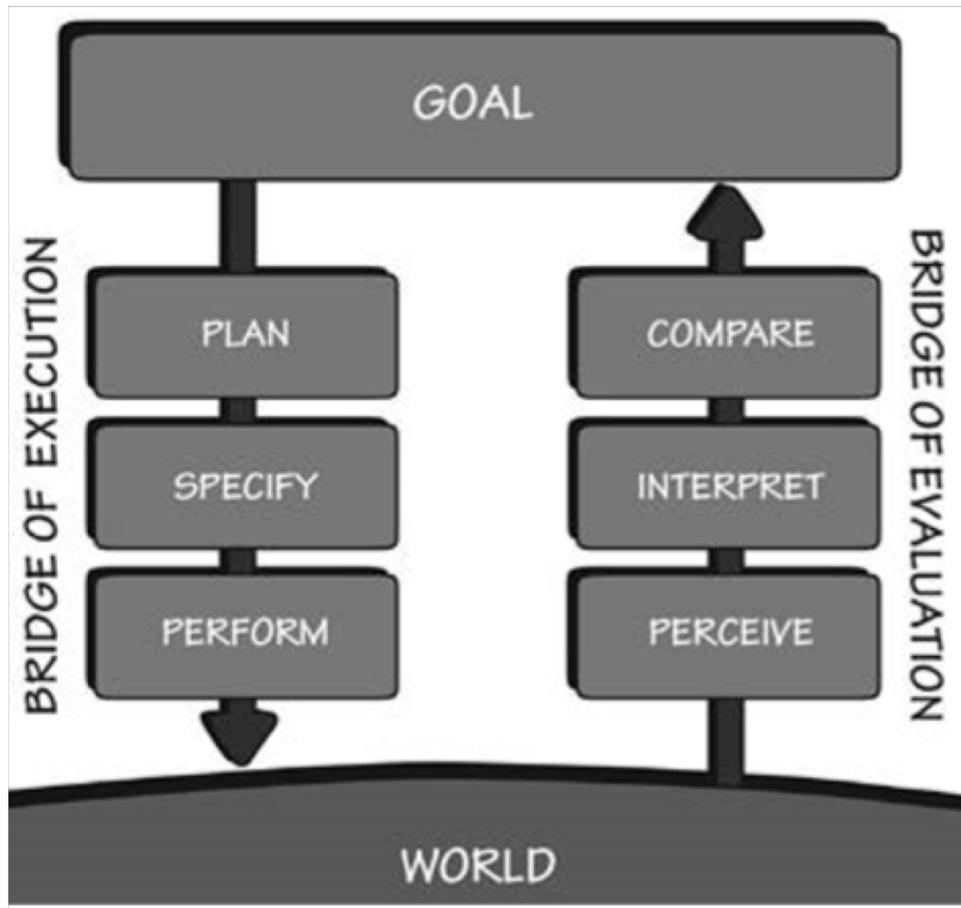
<p>Arriving:</p> <p>Wednesday, January 4 - Monday, January 9</p>	<p>Your order will be sent to:</p> <p>Olayemi Osonuga 2B HERBERT ROAD LONDON, SE18 3SH United Kingdom</p>
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Order Details

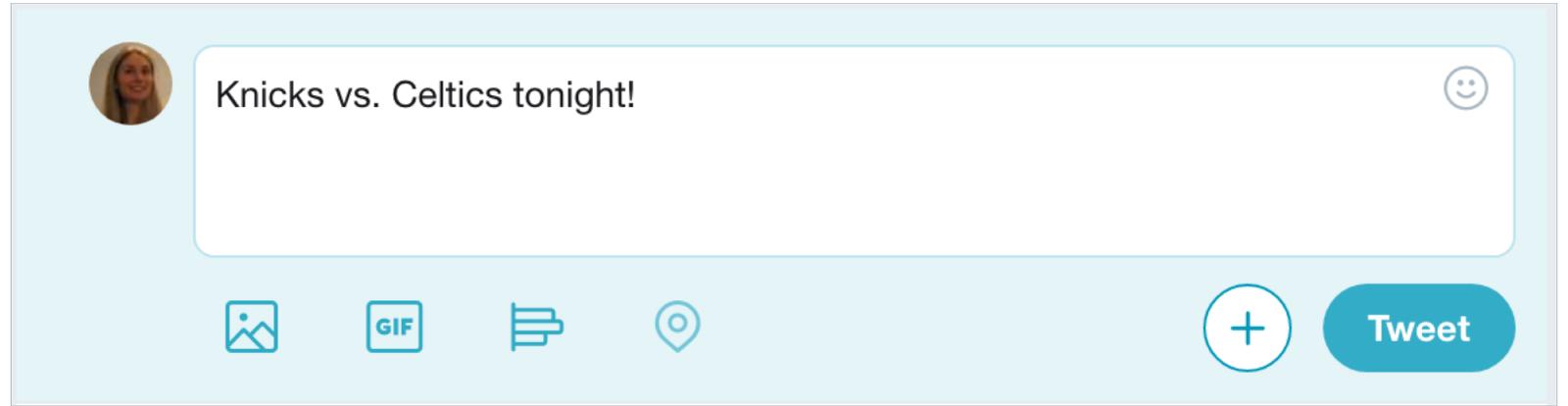
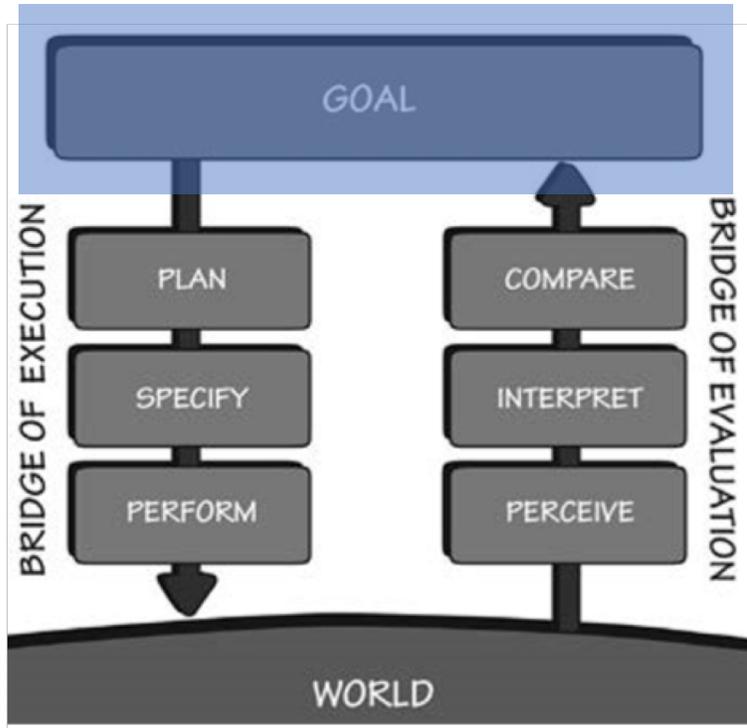
Placed on January 02, 2017

	<p>EFFORTING Vintage Chandelier Deer Horn Resin 6 Lights, Rural countryside antler chandeliers, Study Rooms/Office, Dining Room, Bedroom, Living Room Chand</p> <p>Condition: New Sold by EFFORTING Tiffany <small>Fulfilled by Amazon</small></p>	<p>197.99 GBP</p>
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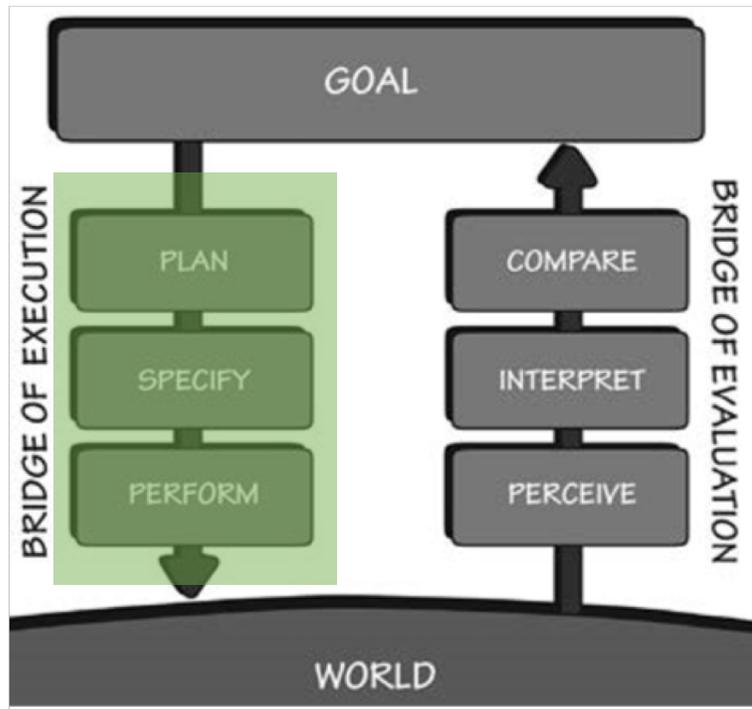
What does The 7 Stages of Action remind you of?



What's the users goal? Post a tweet



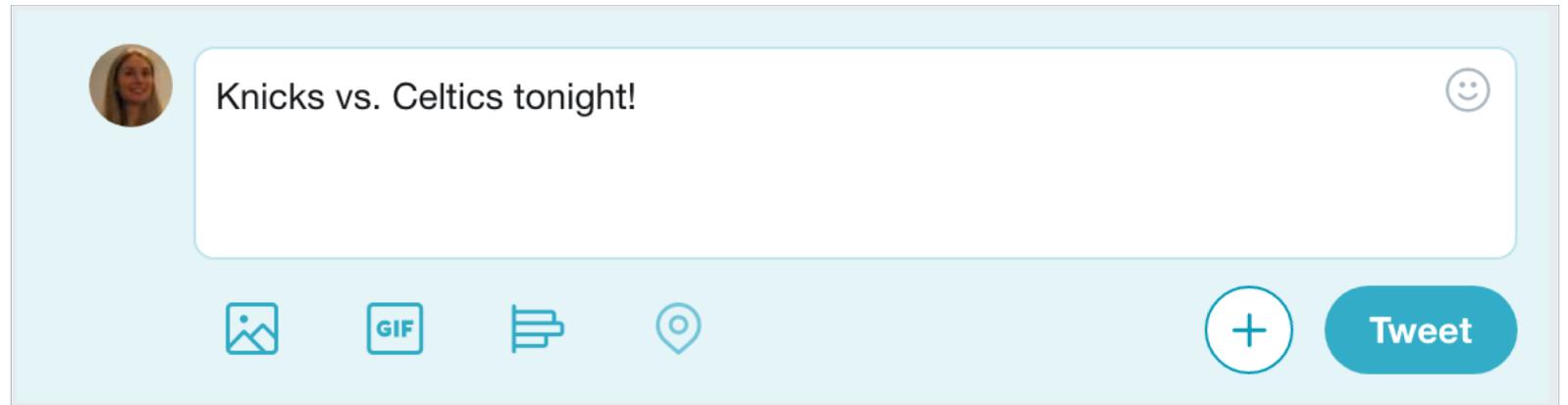
What does the execute?



Put cursor in box

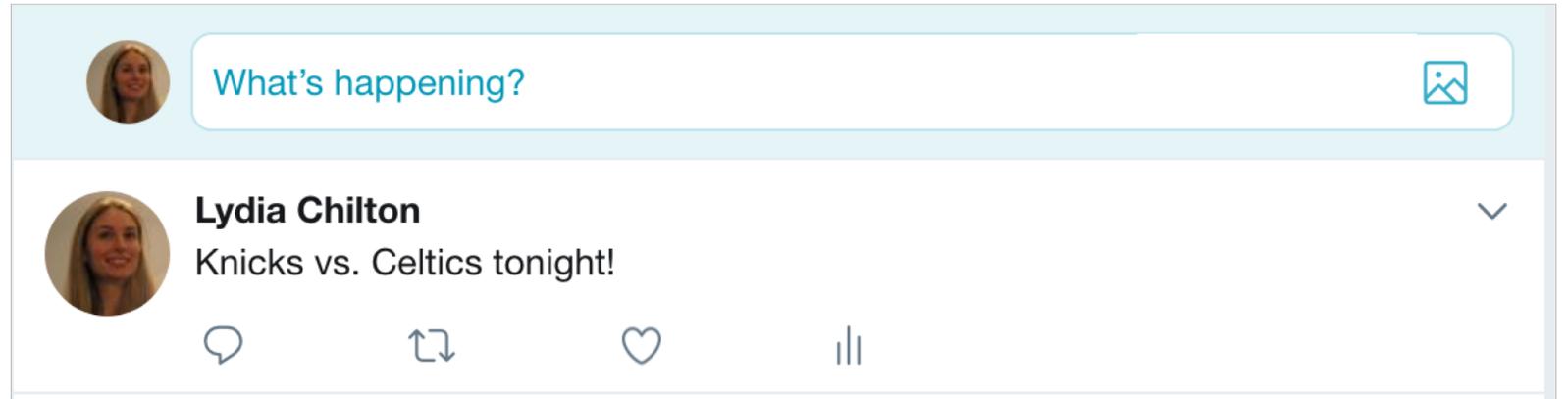
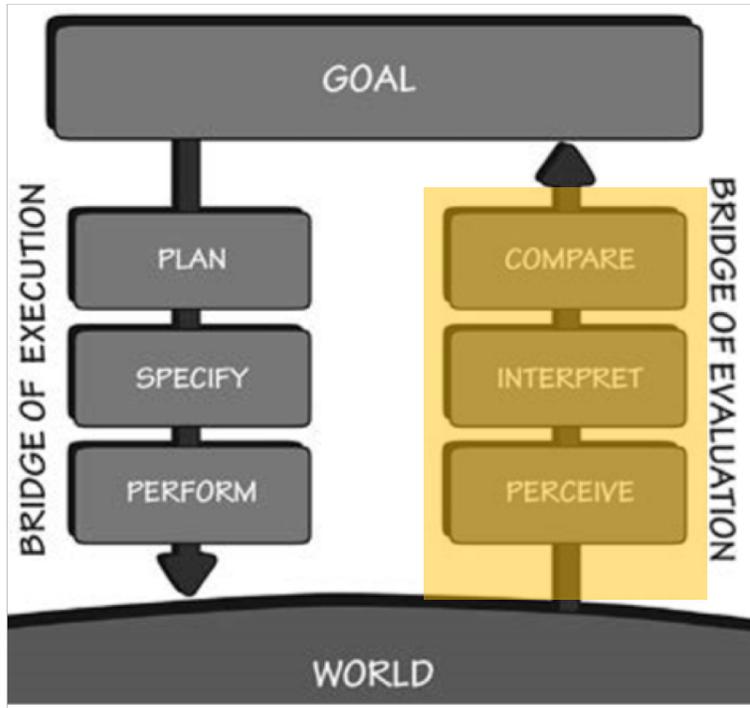
Type message

Move mouse to button and click



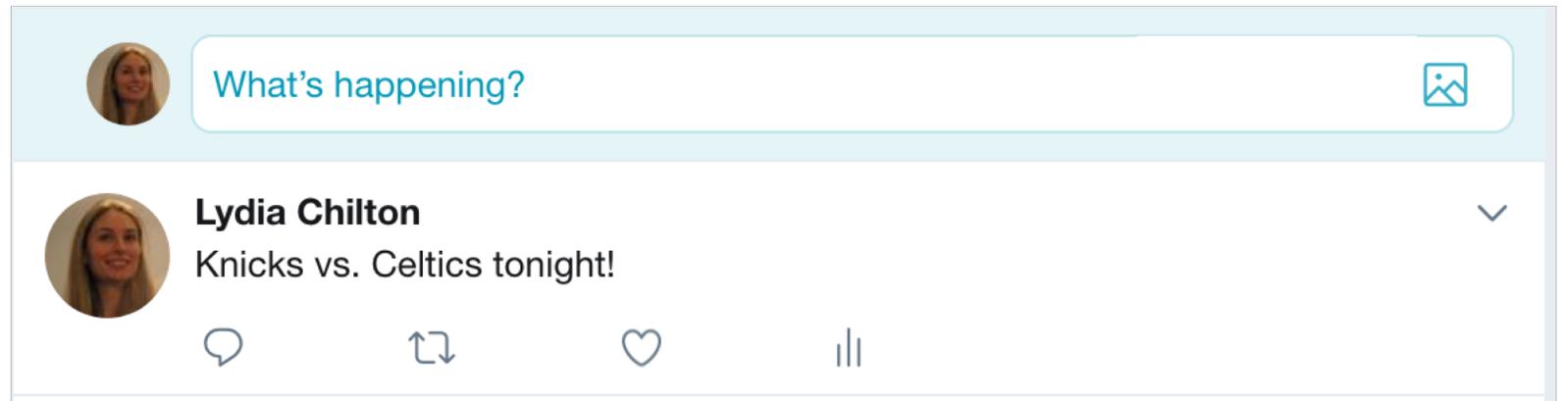
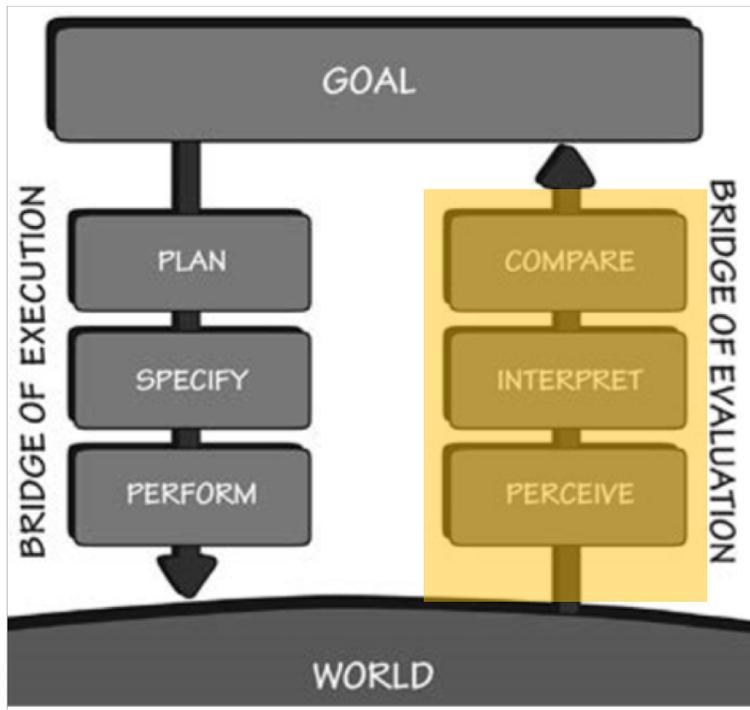
What does the user evaluate?

Did it get posted?



How does the user know?

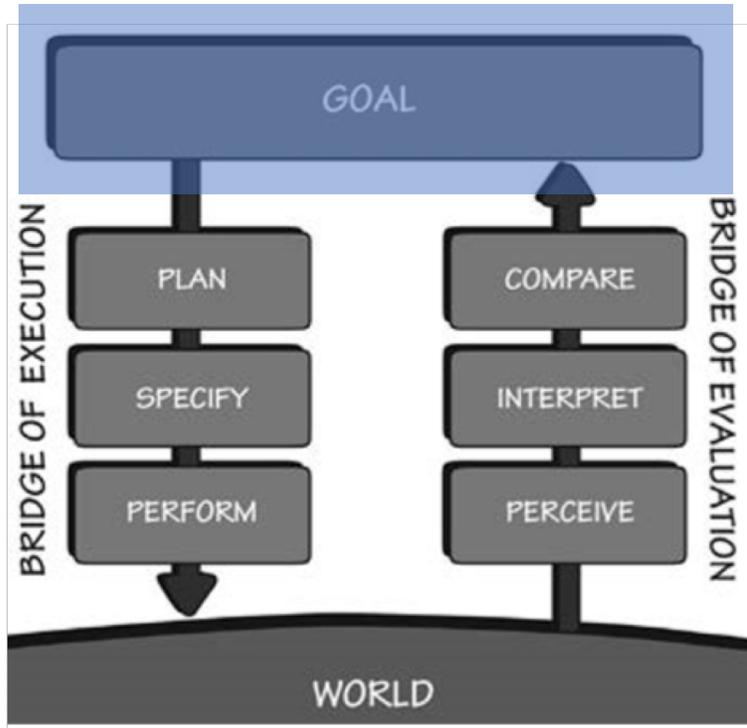
It's my face.
It's my text.
It has new options.



Goal: Perfect DDR score.

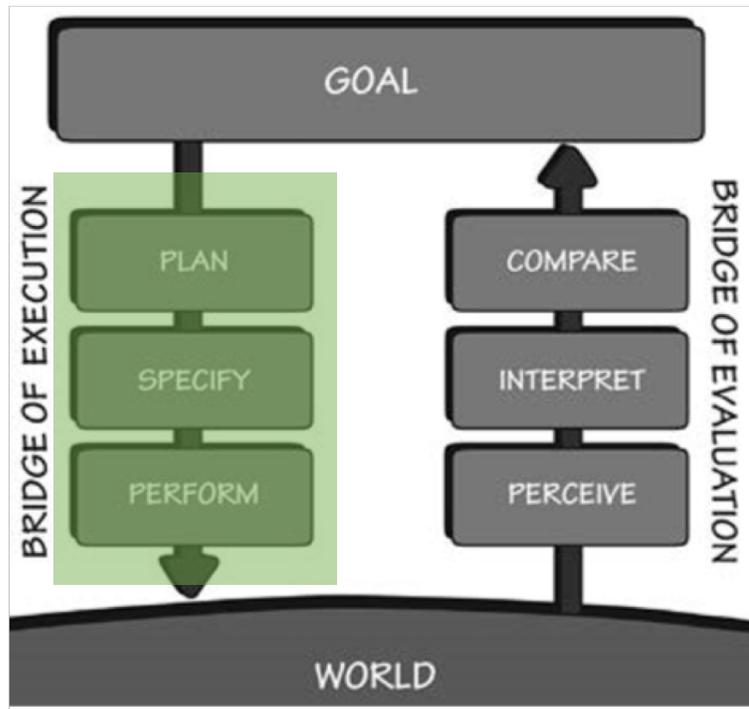
What's the users subgoal?

Step on the correct arrow at the correct time.



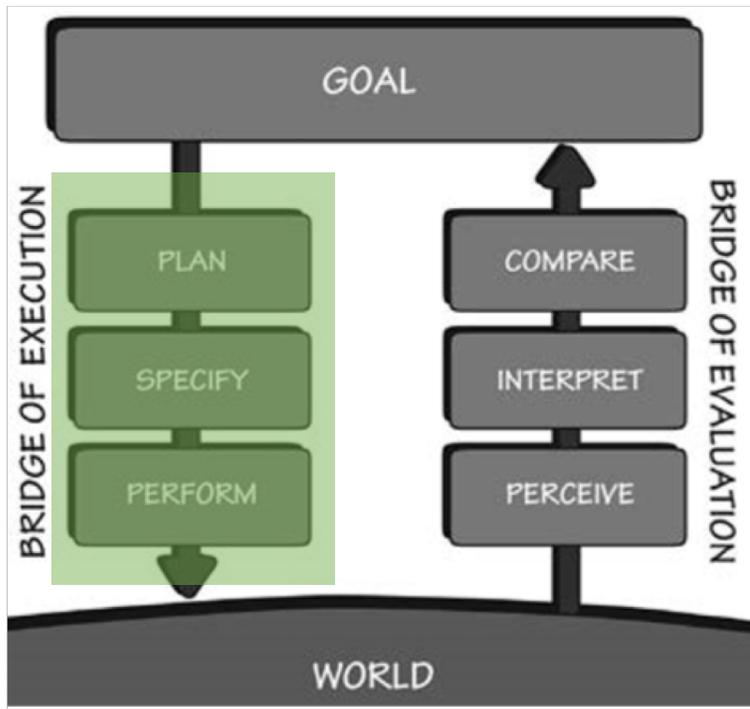
Execution 1: How does the user plan the action?

Look at the screen to see the
correct arrow/timing

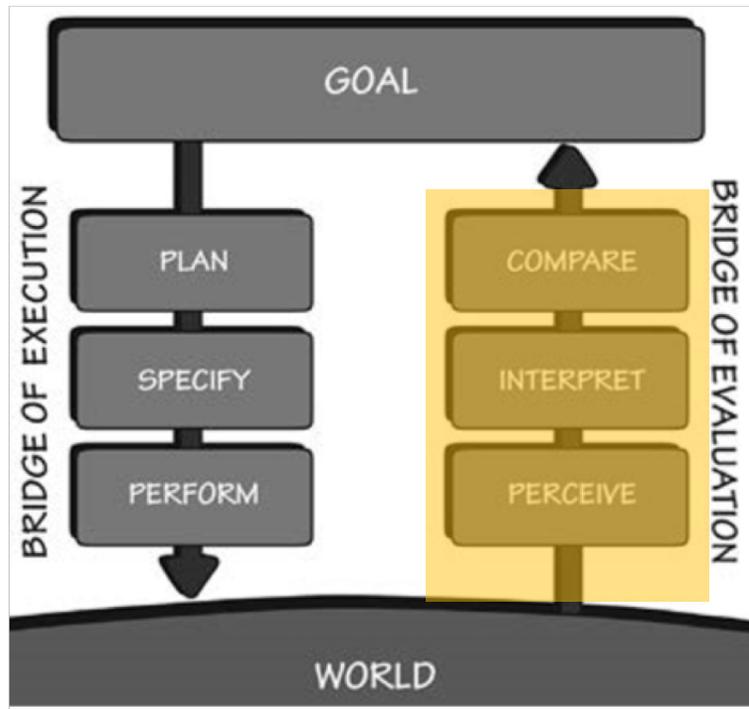


Execution 2&3: How does the user execute the action?

Lift your foot, move over arrow,
Place it at the right time



Evaluation: How does the user evaluate the action?

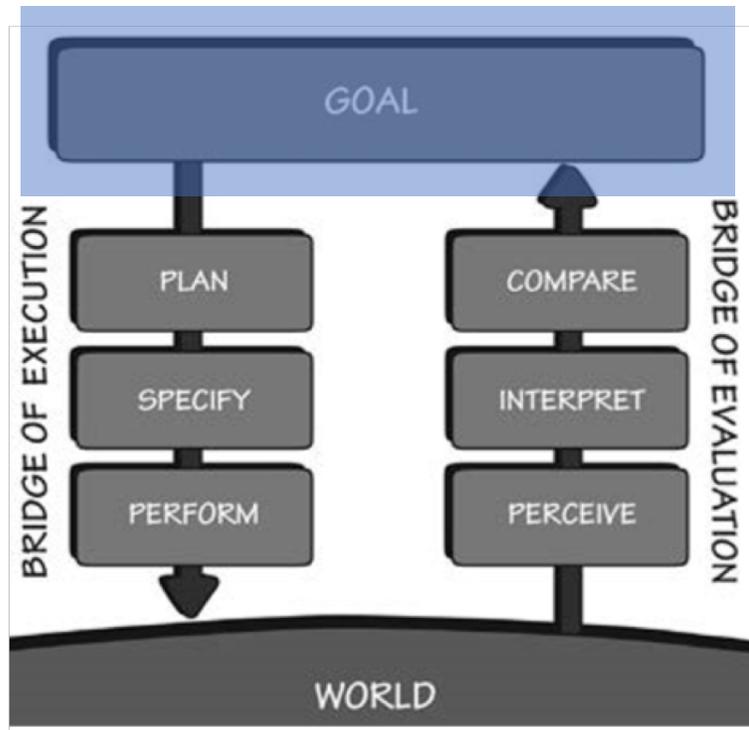


You can see the arrow flash
It tells you a grade



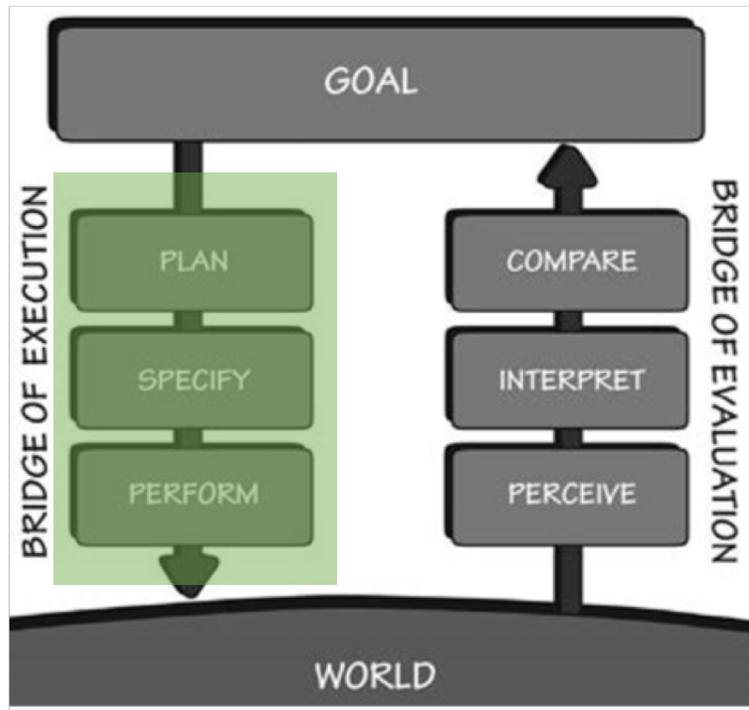
What's the users goal?

To set the alarm for 9:07am



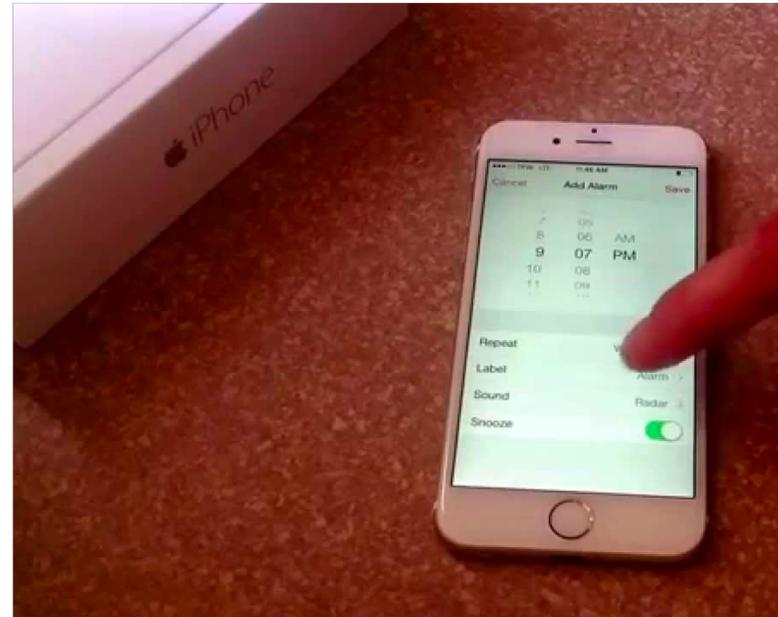
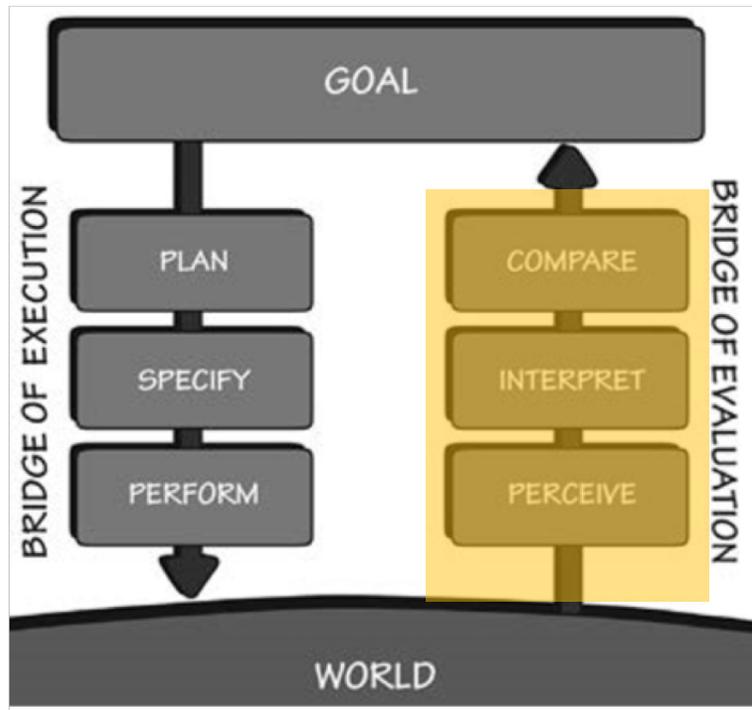
Execution?

Move the wheel to the time
Switch it to “on”



Evaluation?

Turns to an alarm screen



Next time:

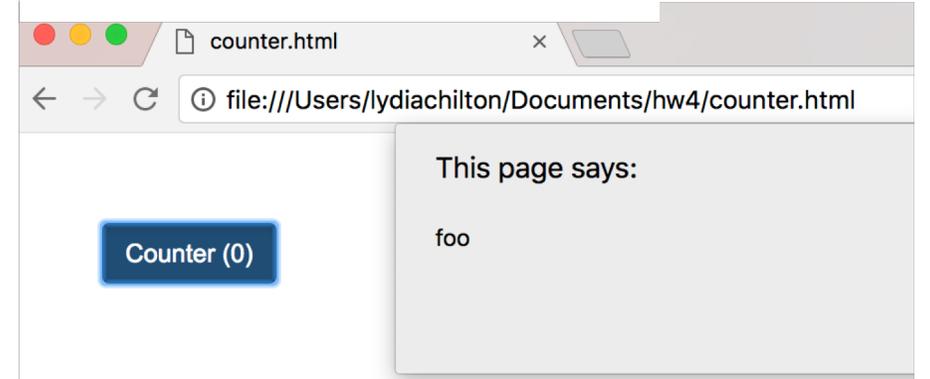
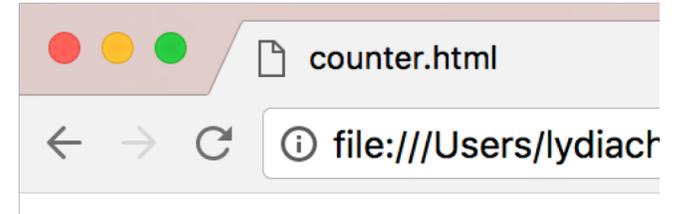
Programming interactions in JavaScript?

HTML

```
30  
31 <body>  
32  
33   <button id="counter" class="btn btn-primary">Counter (0)</button>  
34  
35 </body>  
36
```

JavaScript

```
25  
26 $(document).ready(function(){  
27   $("#counter").click(function(){  
28     alert("foo")  
29   })  
30 })  
31
```



Summary

Users interact with the system to accomplish a goal.

The screenshot shows the Amazon product page for the book "The Design of Everyday Things: Revised and Expanded Edition" by Don Norman. The page layout includes a top navigation bar with the Amazon logo, a search bar containing "design of everyday things", and various account and navigation links. Below the navigation bar is a promotional banner for Prime Student. The main content area features the book's cover on the left, which is yellow with a red teapot illustration. To the right of the cover, the book title and author are displayed, along with the release date (November 5, 2013), a star rating of 4.5 stars from 277 reviews, and a "#1 Best Seller" badge in the Retailing Industry. Below this, there are options to view all 2 formats and editions, with a table showing prices for Kindle (\$11.99), Paperback (\$11.33), and audiobook options. A detailed description of the book follows, explaining its focus on user-centered design and cognitive psychology. At the bottom, there is a section for "The Amazon Book Review" and a "Read more" link. On the right side of the page, a purchase sidebar shows the current price of \$11.33 (a 40% discount from the list price of \$18.99), a quantity selector set to 1, and an "Add to Cart" button. It also highlights Prime shipping benefits and offers same-day delivery for orders placed by January 31st.

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Books ▾ design of everyday things 🔍

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REVISED & EXPANDED EDITION

The DESIGN of EVERYDAY THINGS

DON NORMAN

The Design of Everyday Things: Revised and Expanded Edition Paperback – November 5, 2013

by Don Norman (Author)

★★★★☆ 277 customer reviews

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Even the smartest among us can feel inept as we fail to figure out which light switch or oven burner to turn on, or whether to push, pull, or slide a door. The fault, argues this ingenious—even liberating—book, lies not in ourselves, but in product design that ignores the needs of users and the principles of cognitive psychology. The problems range from ambiguous and hidden controls to arbitrary relationships between controls and functions, coupled with a lack of feedback or other assistance and unreasonable demands on memorization. *The Design of Everyday Things* shows that good, usable design is possible. The rules

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The designer must create the subgoals and interactions to help them accomplish it.

Goal: Buy a book

Subgoal:

Find it

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Enter payment info

Place order

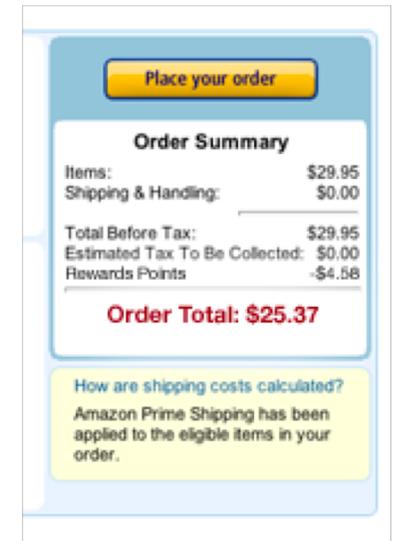
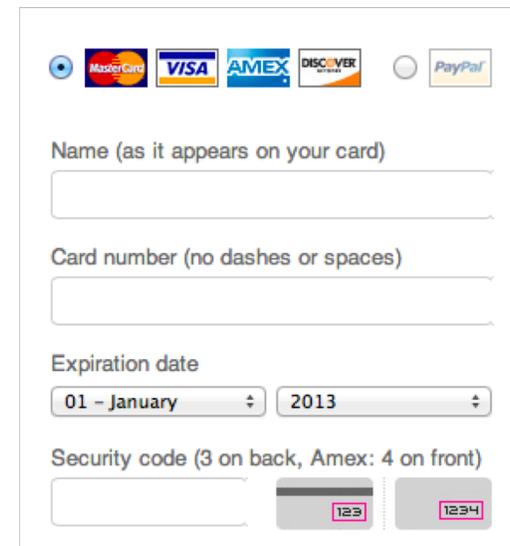
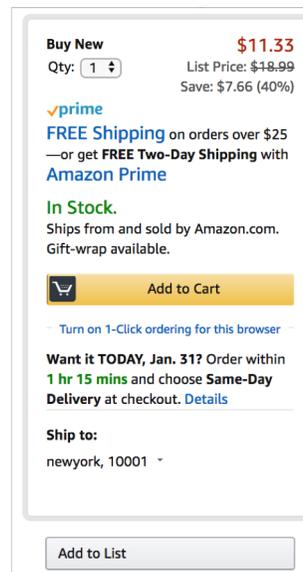
Interaction:

Type, click

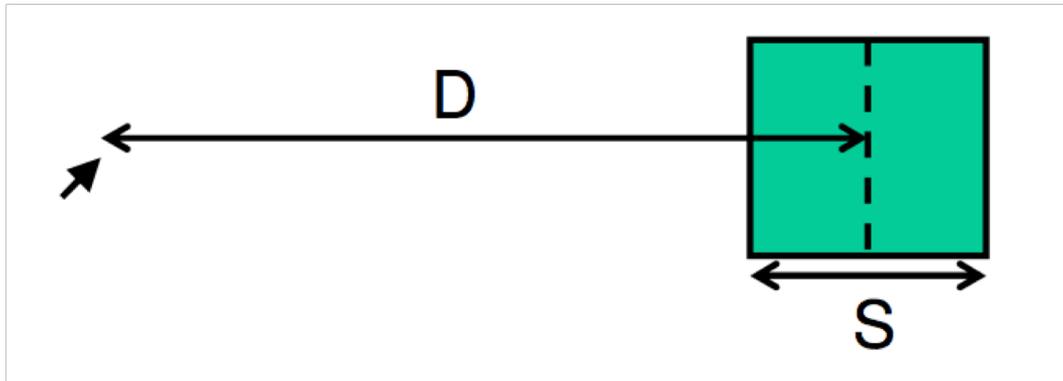
click

Type, click, point

Click



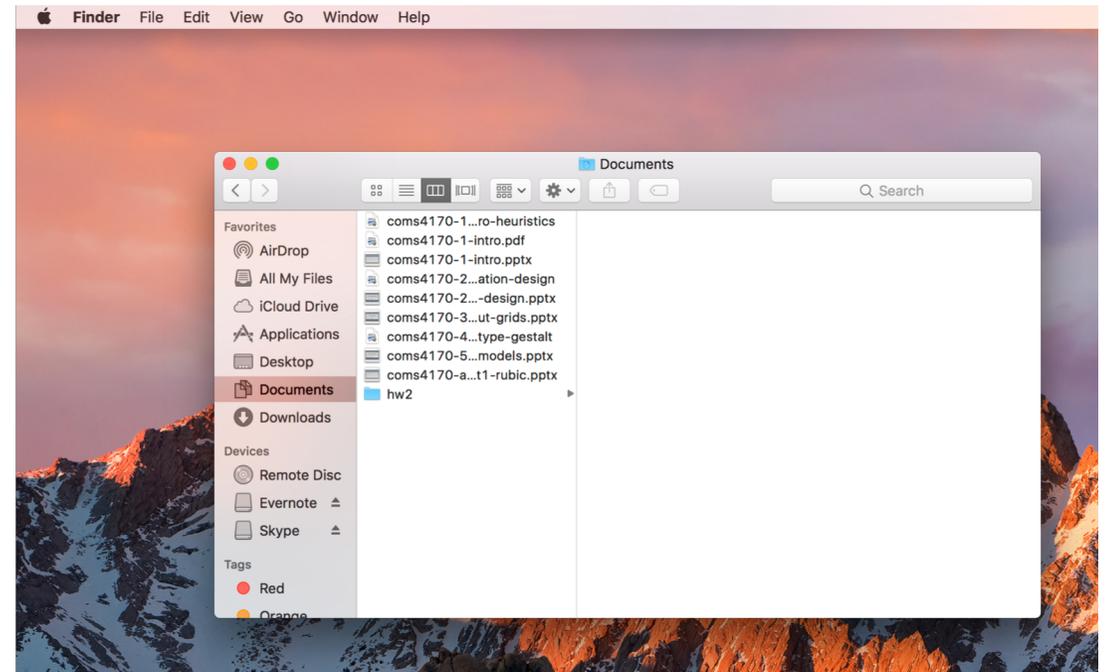
Time to move to a target : Fitts's Law



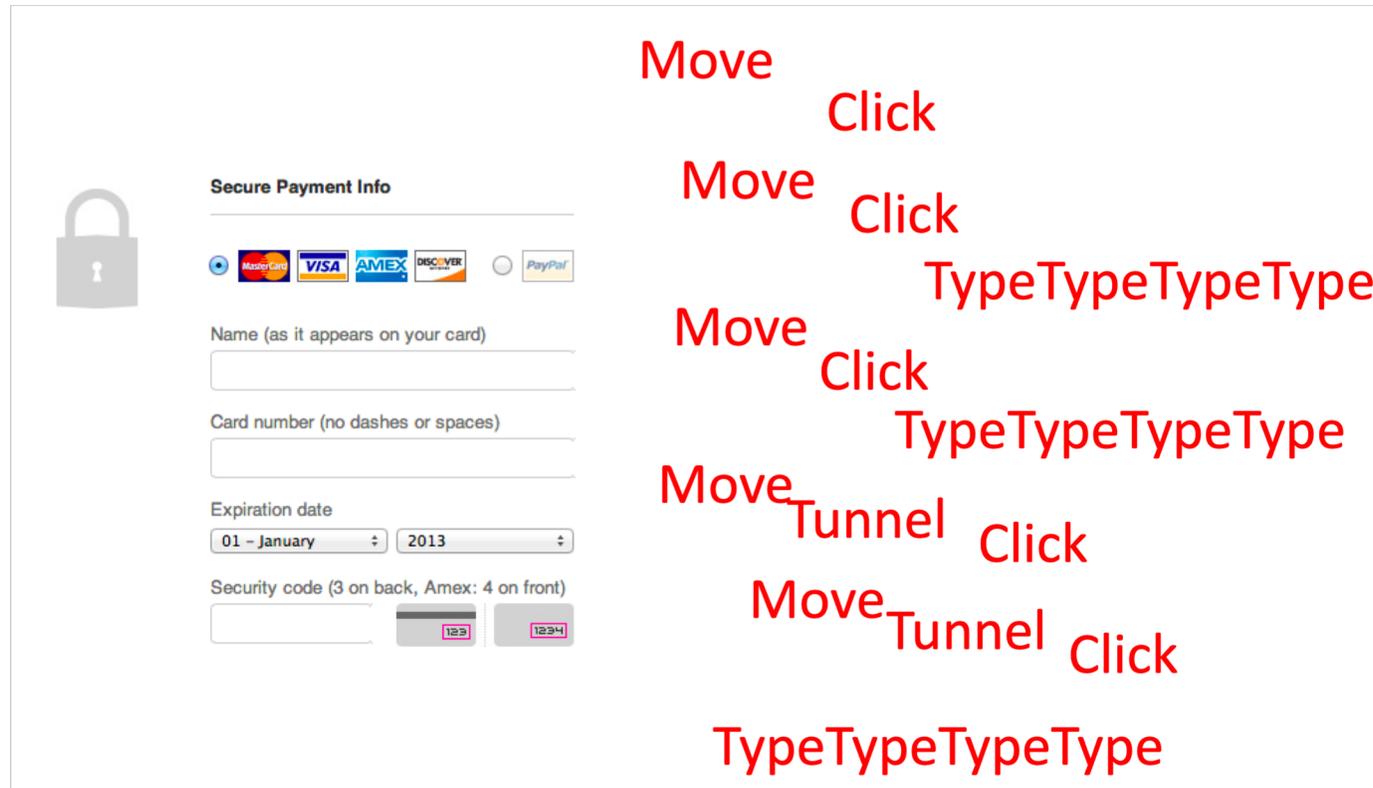
Time to move your
pointer to a target

$$= a + b * \log \left(\frac{2D}{S} \right)$$

Buttons on the edges are fast
to get to because they have
infinite size



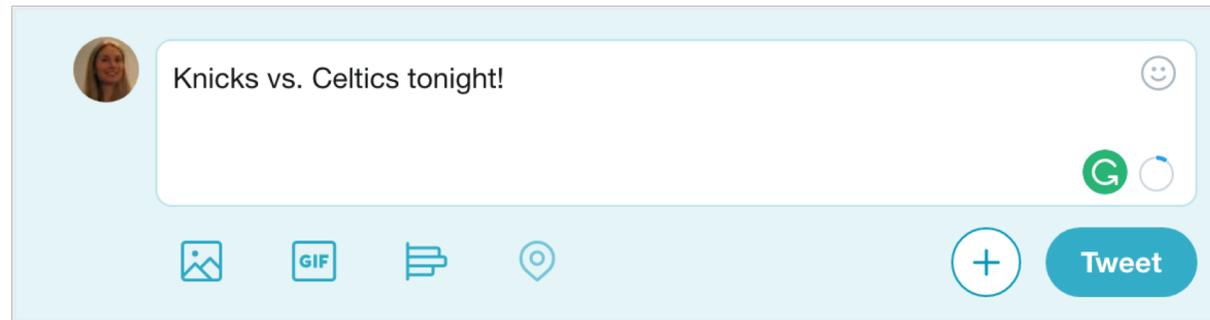
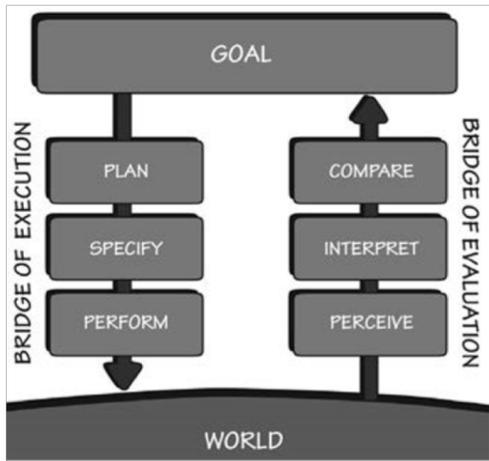
Low-level interactions take time and effort.
Minimize them because you do them a lot.



The image shows a 'Secure Payment Info' form with several input fields and a payment method selector. Red text annotations are overlaid on the form, indicating user interactions:

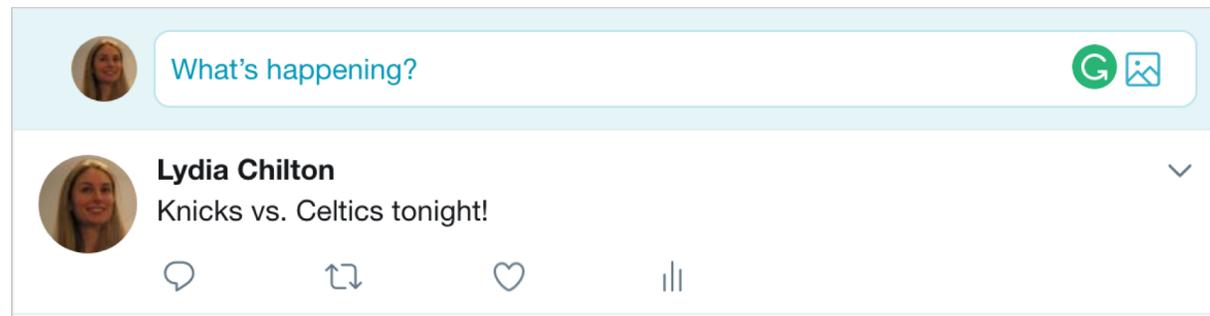
- Move**: Located above the payment method selector.
- Click**: Located above the first radio button in the payment method selector.
- Move**: Located above the 'Name (as it appears on your card)' input field.
- Click**: Located above the 'Name (as it appears on your card)' input field.
- TypeTypeTypeType**: Located above the 'Name (as it appears on your card)' input field.
- Move**: Located above the 'Card number (no dashes or spaces)' input field.
- Click**: Located above the 'Card number (no dashes or spaces)' input field.
- TypeTypeTypeType**: Located above the 'Card number (no dashes or spaces)' input field.
- Move**: Located above the 'Expiration date' dropdown menu.
- Tunnel**: Located above the 'Expiration date' dropdown menu.
- Click**: Located above the 'Expiration date' dropdown menu.
- Move**: Located above the 'Security code (3 on back, Amex: 4 on front)' input field.
- Tunnel**: Located above the 'Security code (3 on back, Amex: 4 on front)' input field.
- Click**: Located above the 'Security code (3 on back, Amex: 4 on front)' input field.
- TypeTypeTypeType**: Located below the 'Security code (3 on back, Amex: 4 on front)' input field.

Know the users' goals and design interactions as: execution and evaluation



Execution

- Plan the action
- Specify the action sequence
- Perform the action sequence



Evaluation

- Perceive the state of the world
- Interpret the perception
- Compare the outcome with the goal