User Interaction Models

No screens





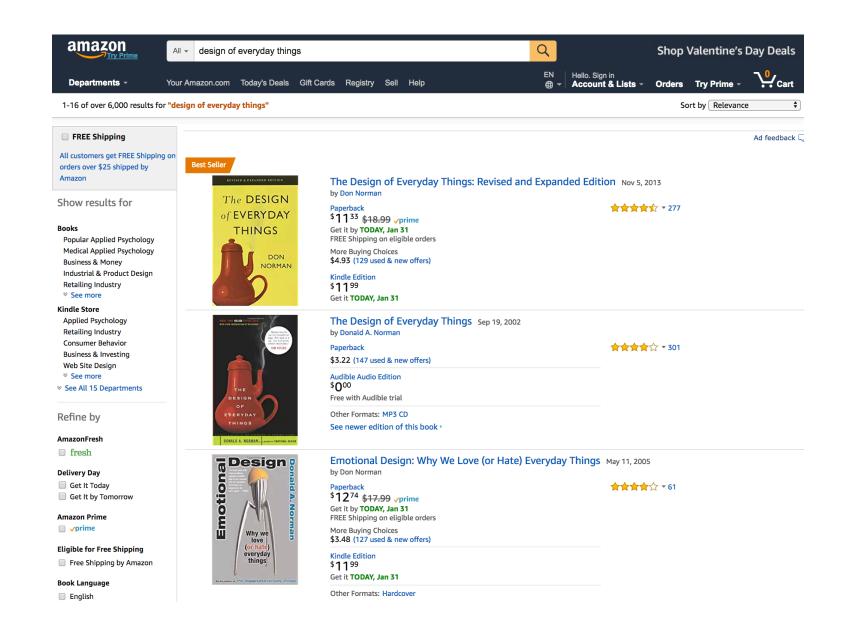
Prof. Lydia Chilton COMS 4170 31 January 2018



Goal 1

Build websites that suit the needs and abilities of users

1. Display information





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

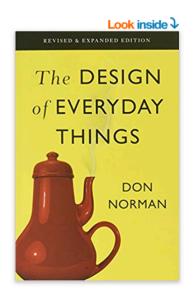
How do users interact with this webpage?

Clara Valantina /a Day Deals



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





See all 4 images

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 Paperback \$11.99 \$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

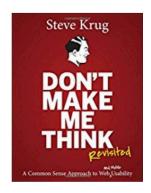


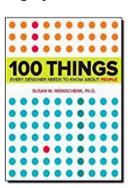
Add to List



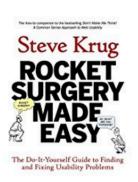


Customers also bought these highly rated items













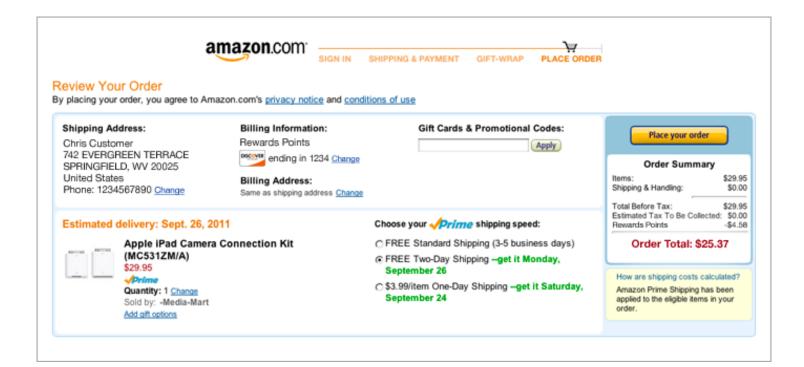


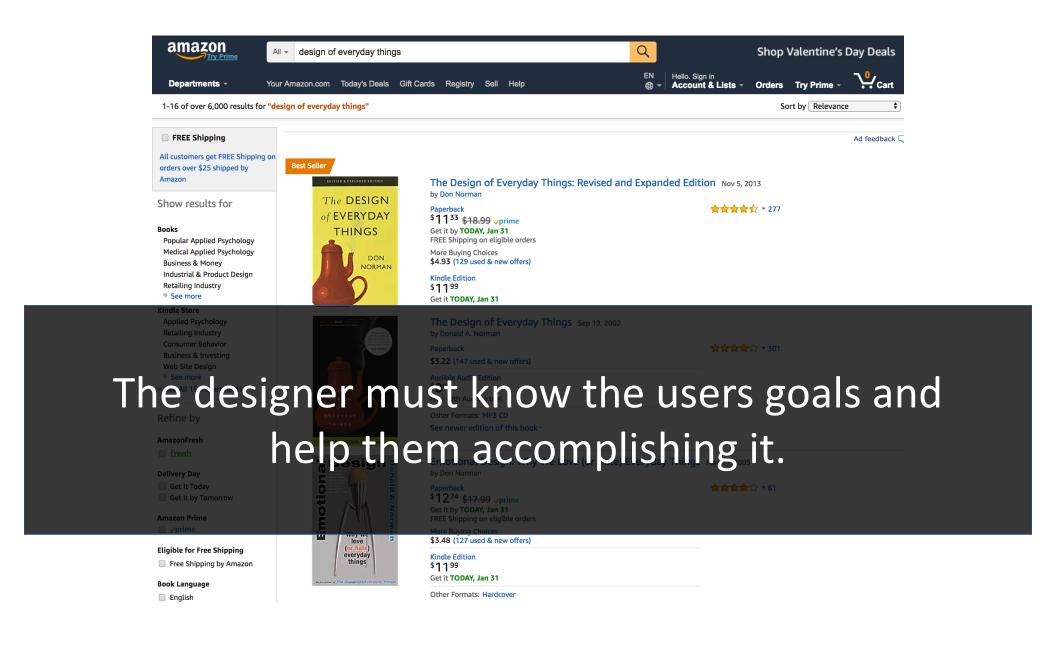
Secure Payment Info

VISA AMEX DISCOVER PayPar
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)

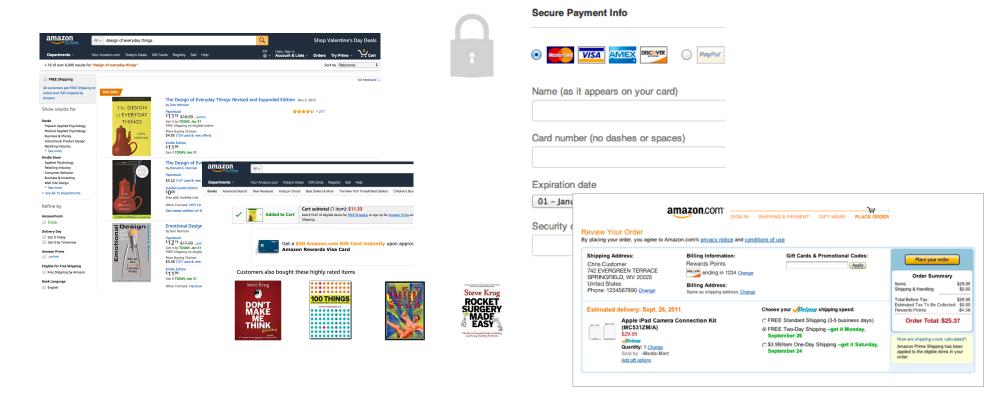
Continue

You can review this order before it's final.



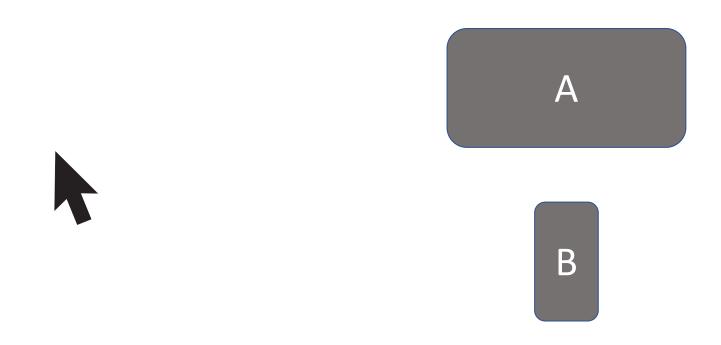


In the goal of buying a book, what were some of the intermediate goals?



Low-Level Interaction: Clicking Buttons

Which button is faster to click?



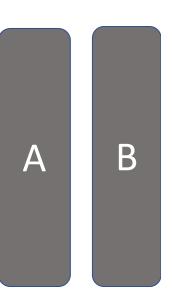
Which button is faster to click?



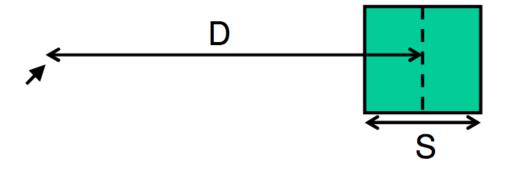
B

Which button is faster to click?



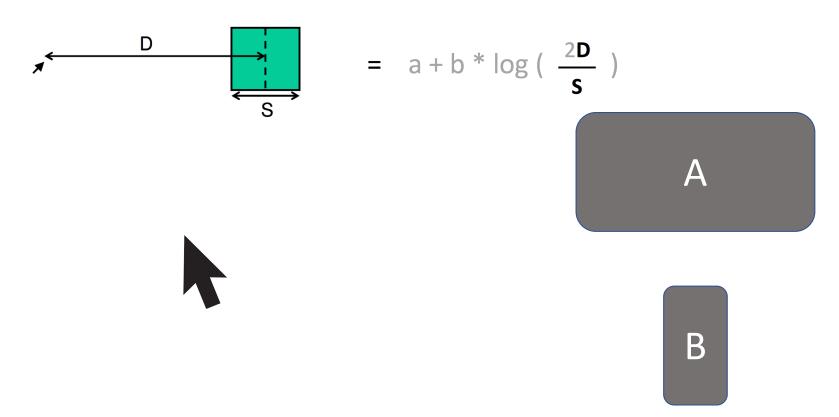


Fitts's Law

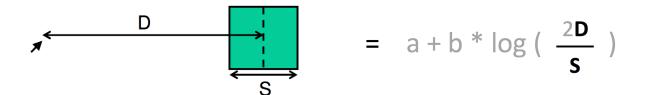


Time to move your pointer to a target = $a + b * log(\frac{2D}{S})$

Which button is faster to click according to Fitts?



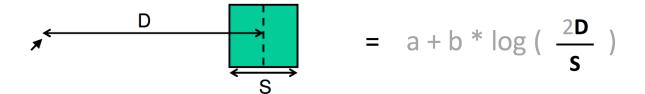
Which button is faster to click according to Fitts?



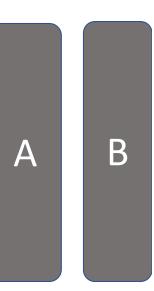


B

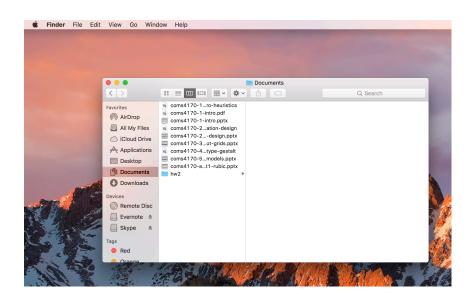
Which button is faster to click according to Fitts?



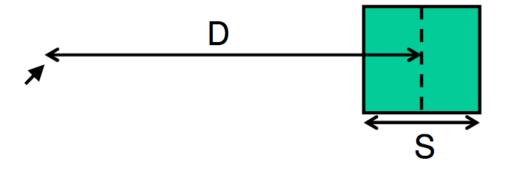




Placing buttons on the edge of the screen gives them effectively infinite size



Fitts's Law: What are a and b?



Time to move your pointer to a target =

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

Time to move your pointer to a target

$$= a + b * log (\frac{2D}{s})$$











Low-Level Interaction: **Keystrokes**

What types of low-level actions are needed?

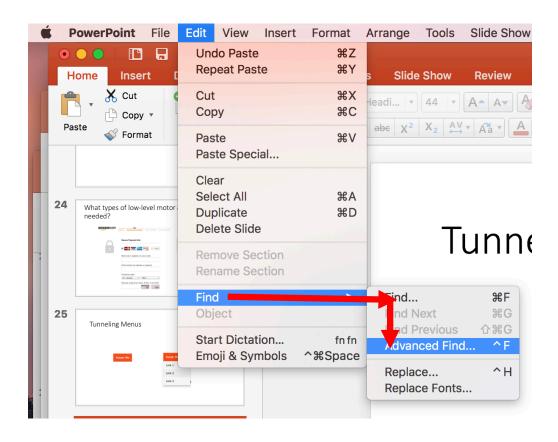


Tunneling Menus

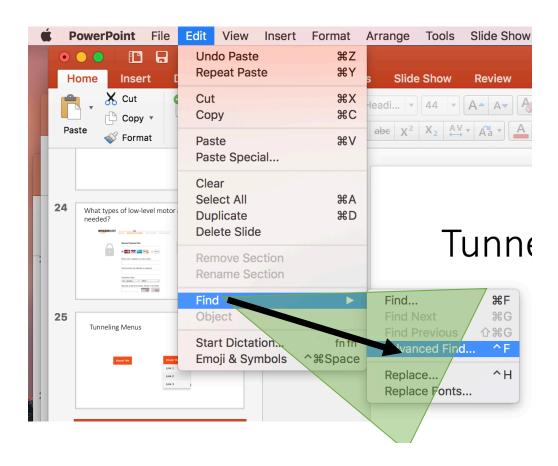
Hover Me

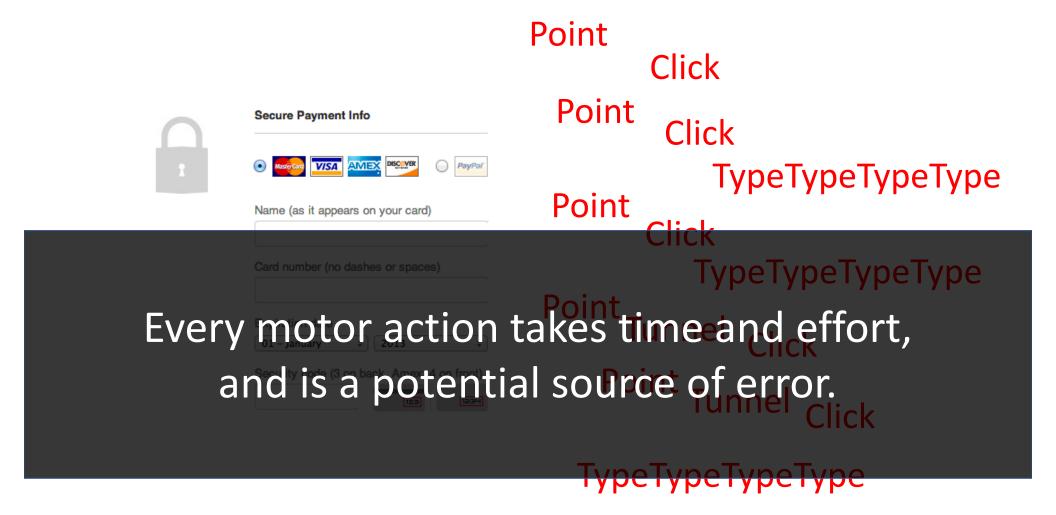


Cascading Tunnel Menus

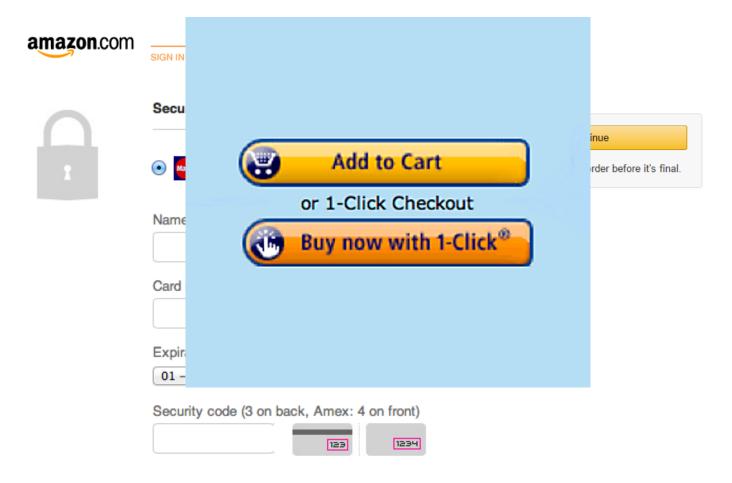


Cascading Tunnel Menus

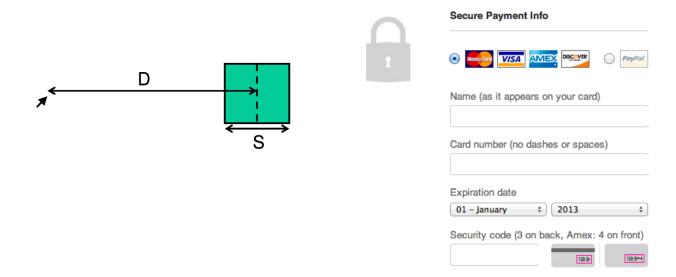




What would be better?



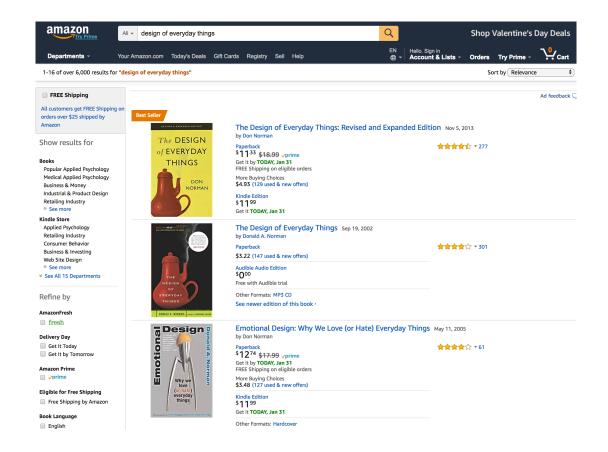
Low-level Interactions take time and effort. Minimize them because you do them a lot.





High-Level Interaction Loop

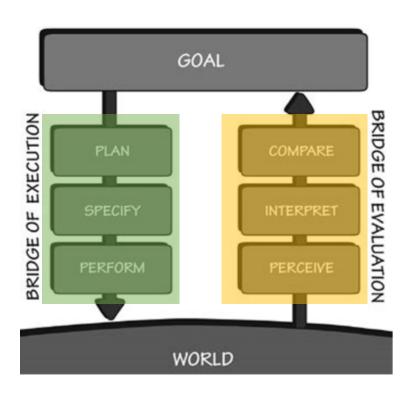
Establish a goal: Buy a book.



What are the cognitive roles of these two screen? (in relation to the goal)

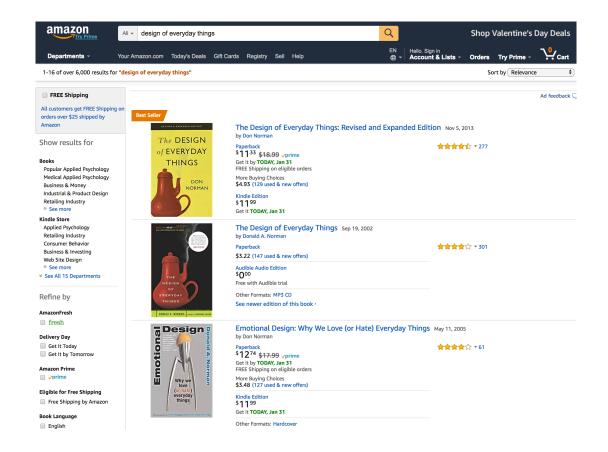


The Seven Stages of Action

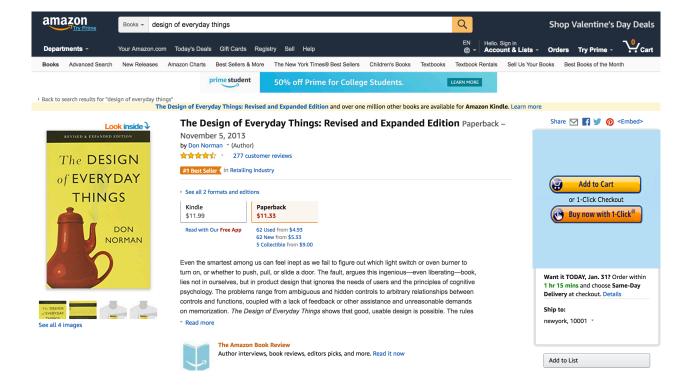


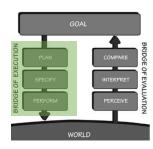
- 1. Form the goal
- 2. Plan the action
- 3. Specify the action sequence
- 4. Perform the action sequence
- 5. Perceive the state of the world
- 6. Interpret the perception
- 7. Compare the outcome with the goal

Establish a goal: Buy a book.

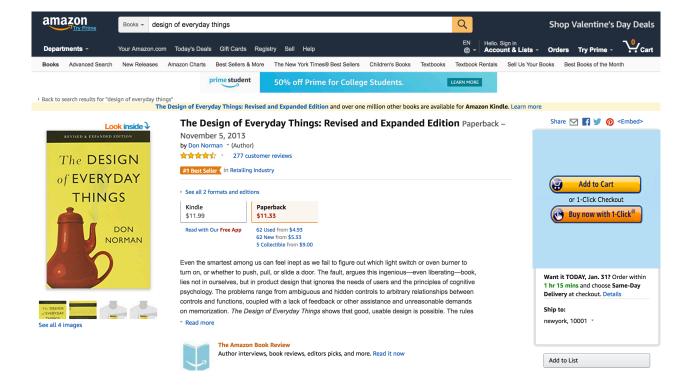


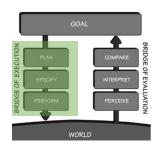
Goal Execution Step 1: Plan the action



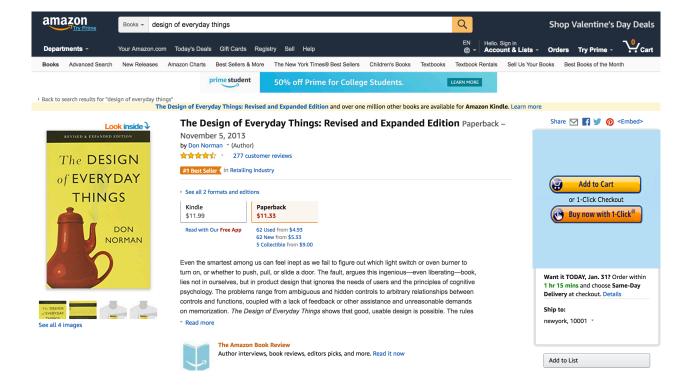


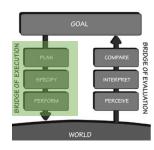
Goal Execution Step 2: **Specify the action sequence**

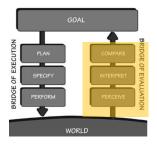




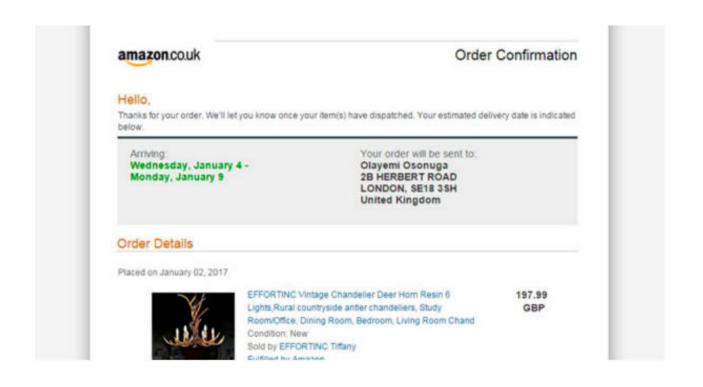
Goal Execution Step 3: **Perform the action sequence**

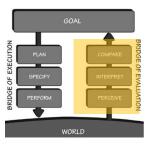




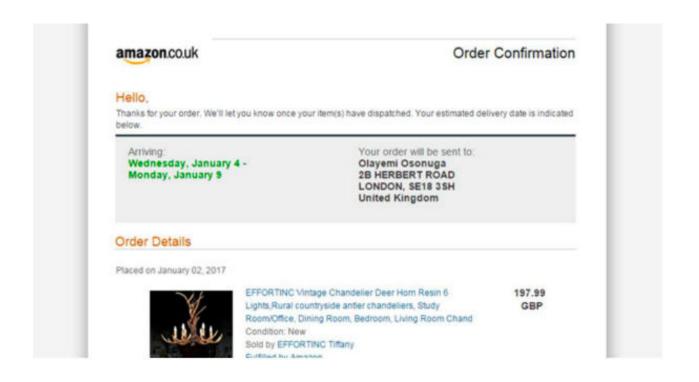


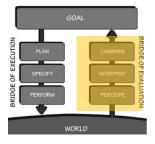
Goal Evaluation Step 1: **Perceive the State of the world**



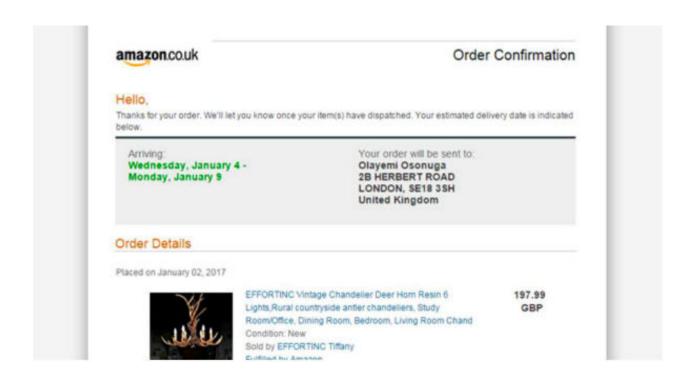


Goal Evaluation Step 2: **Interpret the perception**

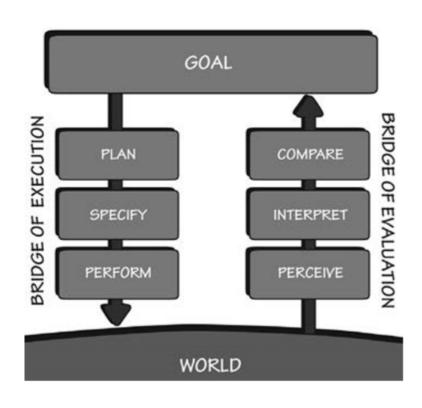


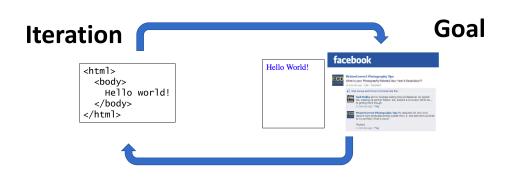


Goal Evaluation Step 3: **Compare the outcome with the goal**

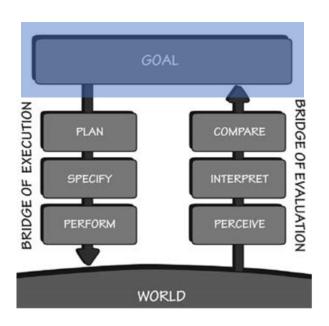


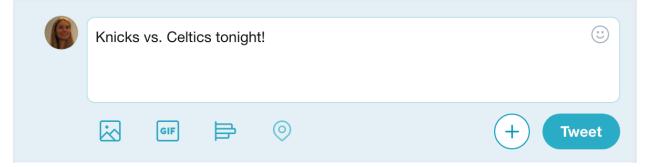
What does The 7 Stages of Action remind you of?





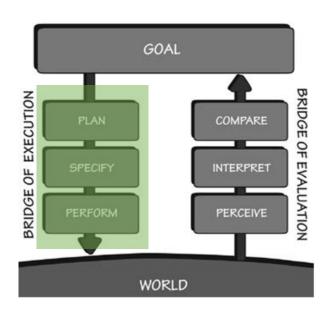
What's the users goal?





Execution

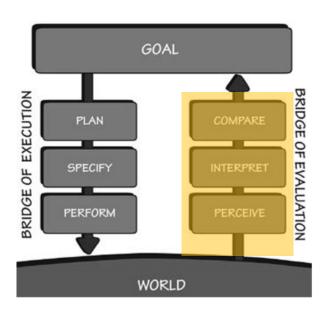
Plan the action
Specify the action sequence
Perform the action sequence

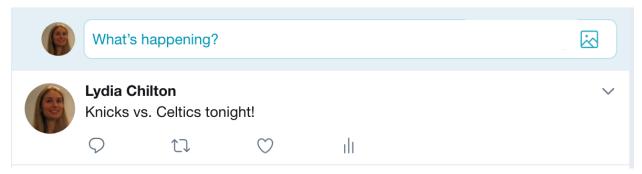




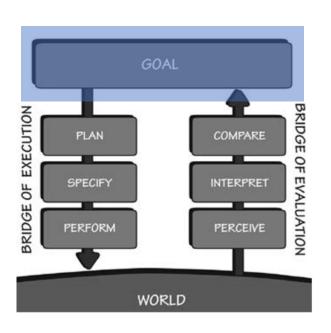
Evaluation

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





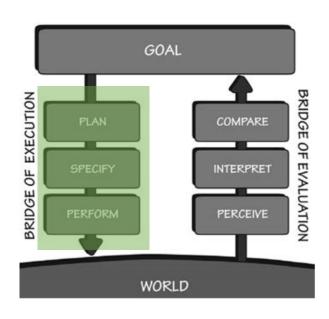
What's the users goal?





Execution

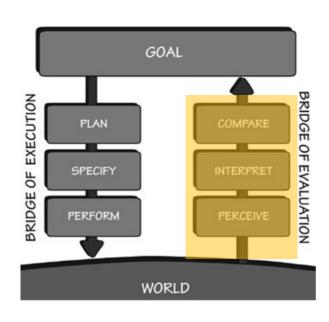
Plan the action
Specify the action sequence
Perform the action sequence





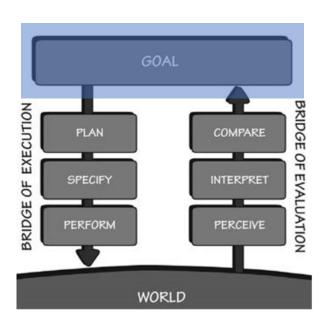
Evaluation

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





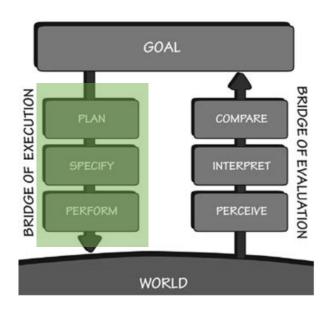
What's the users goal?





Execution

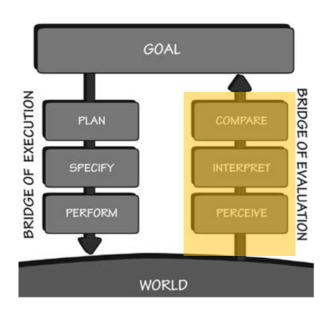
Plan the action
Specify the action sequence
Perform the action sequence





Evaluation

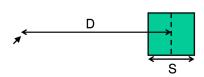
Perceive the state of the world Interpret the perception Compare the outcome with the goal



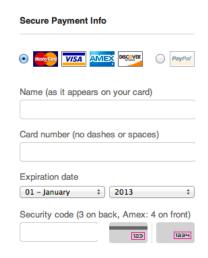


Summary

Users interact with the system to accomplish a goal.



Low-level goals: Clicking, Typing



Intermediate goals: Filling out forms



High-level goals: **Buying a book**

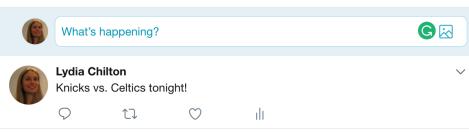
Know the users goals and design an interaction that facilitates all 7 stages of action.





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