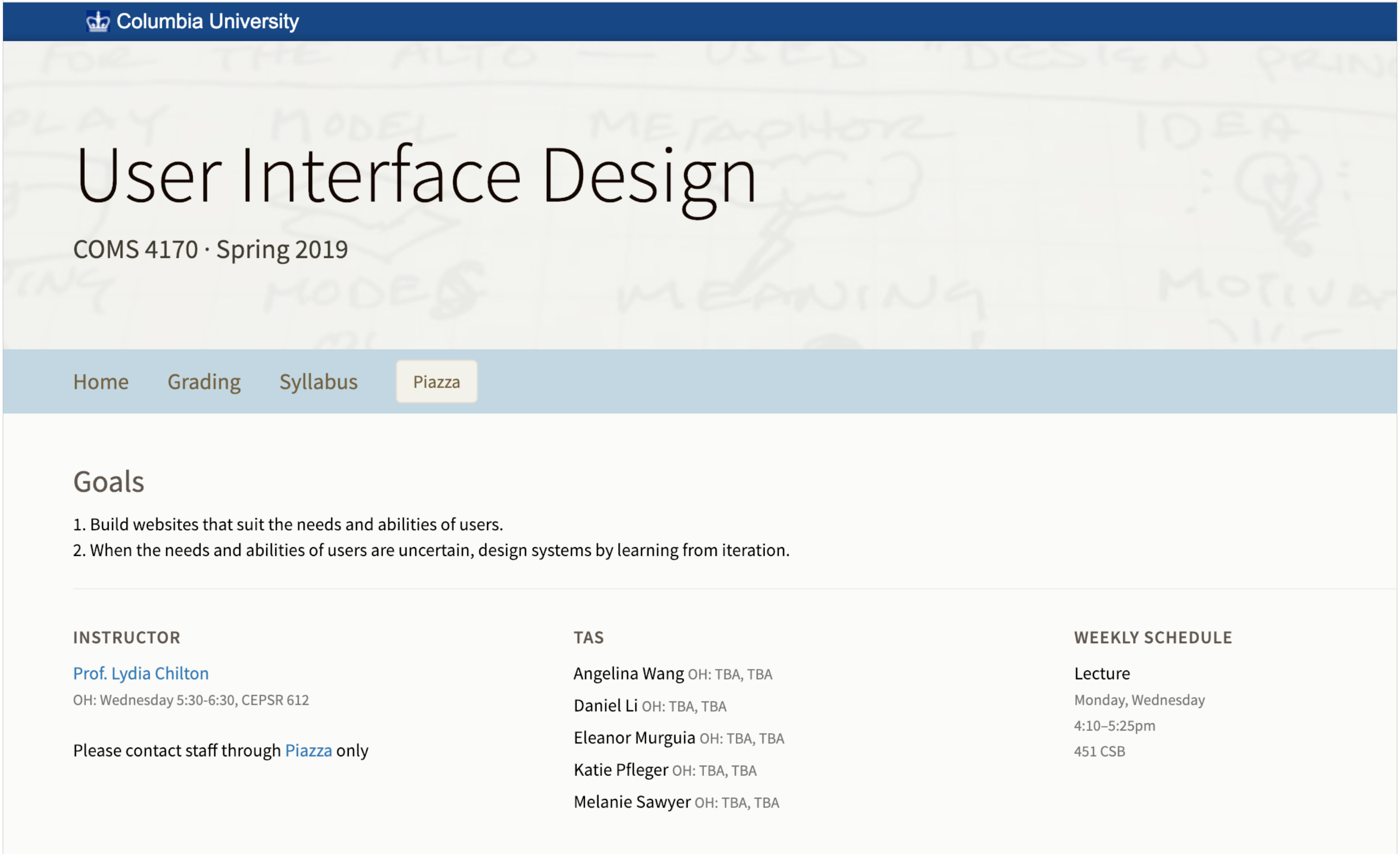


Columbia University

User Interface Design

COMS 4170 · Spring 2019

Goals

1. Build websites that suit the needs and abilities of users.
2. When the needs and abilities of users are uncertain, design systems by learning from iteration.

INSTRUCTOR

Prof. Lydia Chilton
OH: Wednesday 5:30-6:30, CEPSR 612

Please contact staff through Piazza only

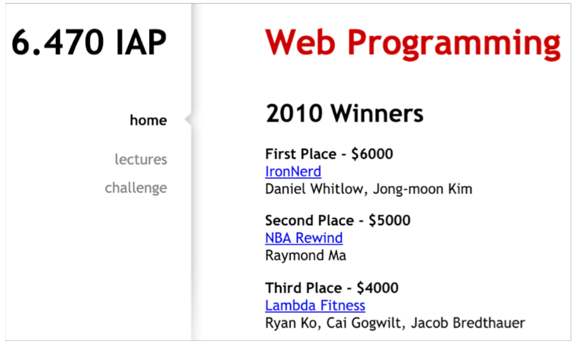
TAS

Angelina Wang	OH: TBA, TBA
Daniel Li	OH: TBA, TBA
Eleanor Murguia	OH: TBA, TBA
Katie Pfleger	OH: TBA, TBA
Melanie Sawyer	OH: TBA, TBA

WEEKLY SCHEDULE

Lecture
Monday, Wednesday
4:10–5:25pm
451 CSB

I’ve been teaching Web Dev & UI for 11 years



6.470 IAP

home

lectures

challenge

Web Programming

2010 Winners

First Place - $6000
IronNerd
Daniel Whitlow, Jong-moon Kim

Second Place - $5000
NBA Rewind
Raymond Ma

Third Place - $4000
Lambda Fitness
Ryan Ko, Cai Gogwilt, Jacob Bredthauer

MIT
2008 - 2010

TA’d AI courses

Univ Washington
2012 - 2013

Home Syllabus Logistics Projects

HCI design studio

CS 247 · Spring 2017

Stanford
2014 - 2016

Columbia University

User Interface Design

COMS 4170 · Spring 2019

Hom

Columbia University

Advanced Web Design Studio

COMS 6998 · Fall 2018

Home Syllabus

Columbia
2017 - now

4170 Staff

- Prof. Chilton
  - Office hours: Wednesdays 5:30-6:30 in CEPSR 612
- TAs:
  - Angelina Lam
  - Daniel Li
  - Eleanor Murguia
  - Katie Pfleger
  - Melanie Sawyer

- My goal is to learn all of your names.

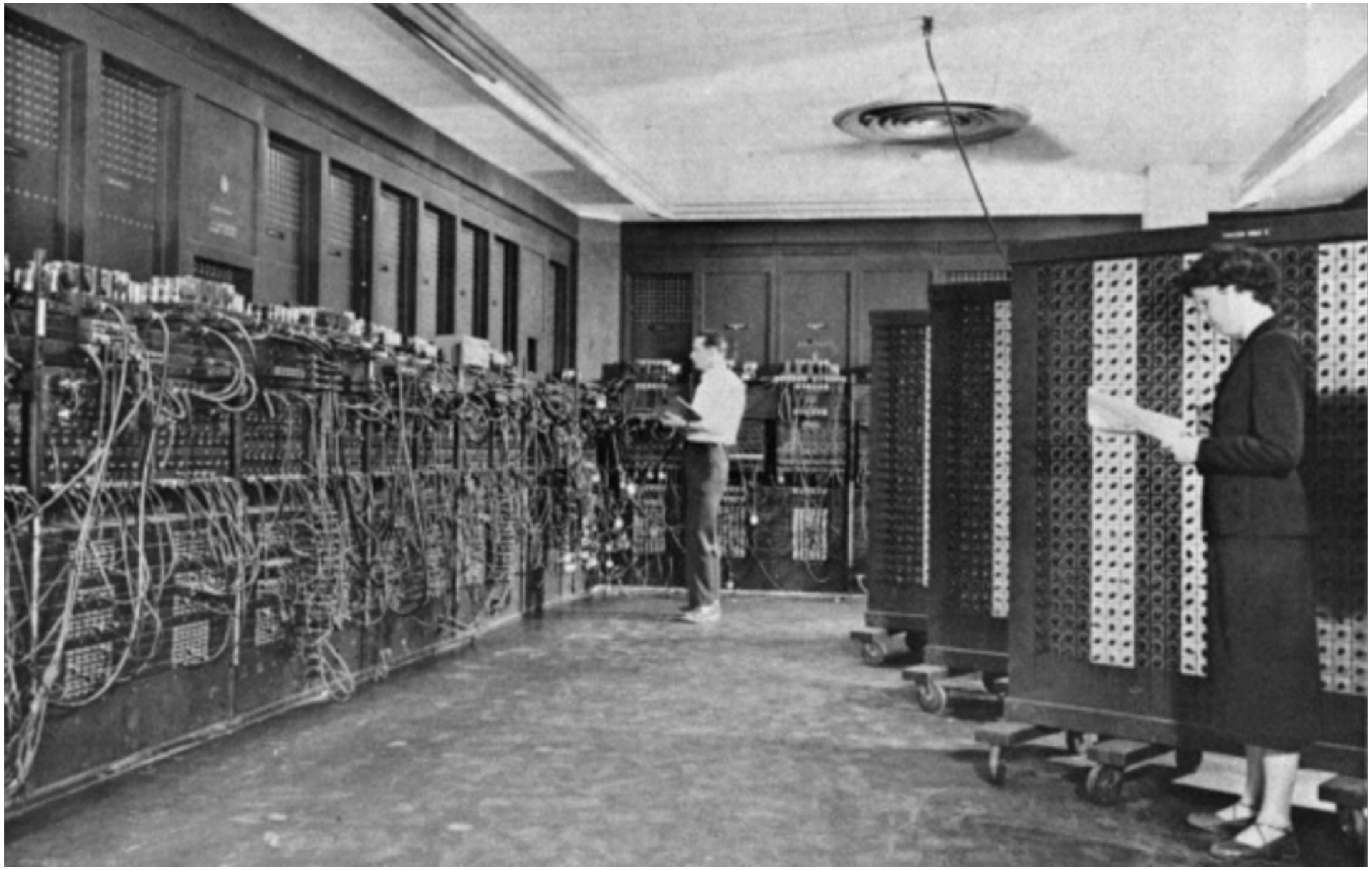
Why are user interfaces important?

1613 – 1940s

Computers: people who performed calculations

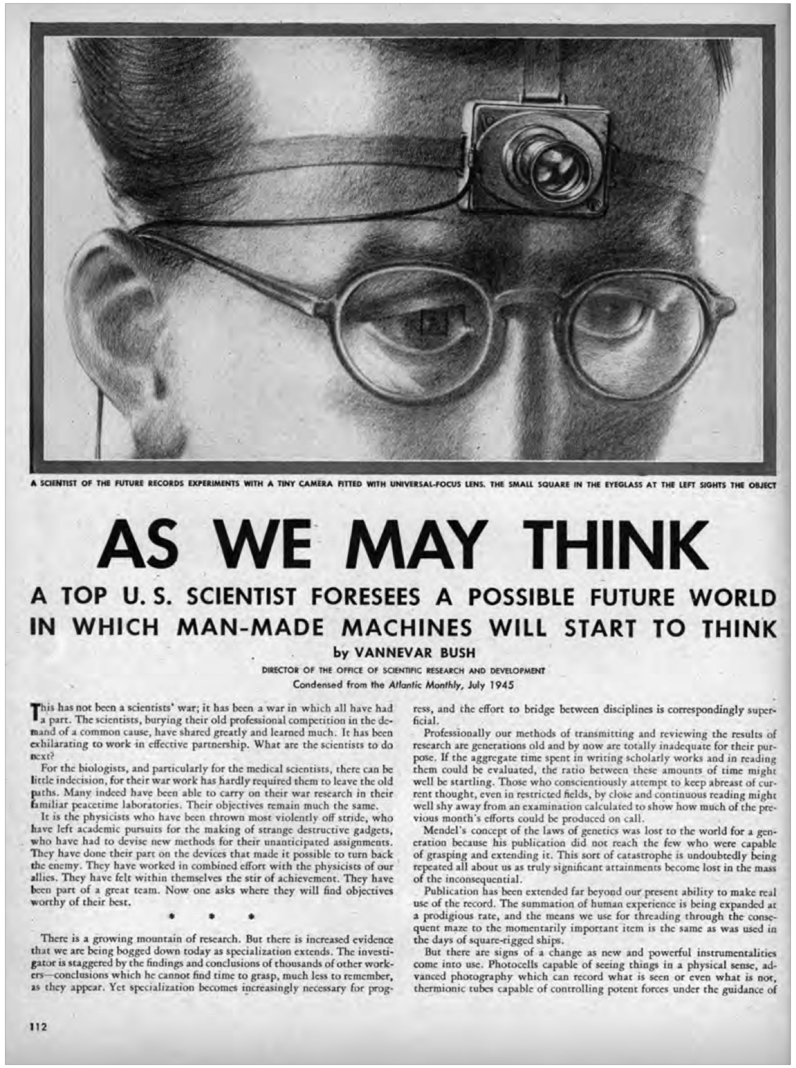
1940s – 1960s

Computers: Tools for Calculation and Symbolic Manipulation



1945

Computers: tools to augment human cognition
Vannevar Bush's vision of computers



A SCIENTIST OF THE FUTURE RECORDS EXPERIMENTS WITH A TINY CAMERA FITTED WITH UNIVERSAL-FOCUS LENS. THE SMALL SQUARE IN THE EYEGLASS AT THE LEFT SIGHTS THE OBJECT

AS WE MAY THINK

A TOP U. S. SCIENTIST FORESEES A POSSIBLE FUTURE WORLD IN WHICH MAN-MADE MACHINES WILL START TO THINK

by VANNEVAR BUSH

DIRECTOR OF THE OFFICE OF SCIENTIFIC RESEARCH AND DEVELOPMENT

Condensed from the *Atlantic Monthly*, July 1945

This has not been a scientists' war; it has been a war in which all have had a part. The scientists, burying their old professional competition in the demand of a common cause, have shared greatly and learned much. It has been exhilarating to work in effective partnership. What are the scientists to do next?

For the biologists, and particularly for the medical scientists, there can be little indecision, for their war work has hardly required them to leave the old paths. Many indeed have been able to carry on their war research in their familiar peacetime laboratories. Their objectives remain much the same.

It is the physicists who have been thrown most violently off stride, who have left academic pursuits for the making of strange destructive gadgets, who have had to devise new methods for their unanticipated assignments. They have done their part on the devices that made it possible to turn back the enemy. They have worked in combined effort with the physicists of our allies. They have felt within themselves the stir of achievement. They have been part of a great team. Now one asks where they will find objectives worthy of their best.

* * *

There is a growing mountain of research. But there is increased evidence that we are being bogged down today as specialization extends. The investigator is staggered by the findings and conclusions of thousands of other workers—conclusions which he cannot find time to grasp, much less to remember, as they appear. Yet specialization becomes increasingly necessary for progress, and the effort to bridge between disciplines is correspondingly superficial.

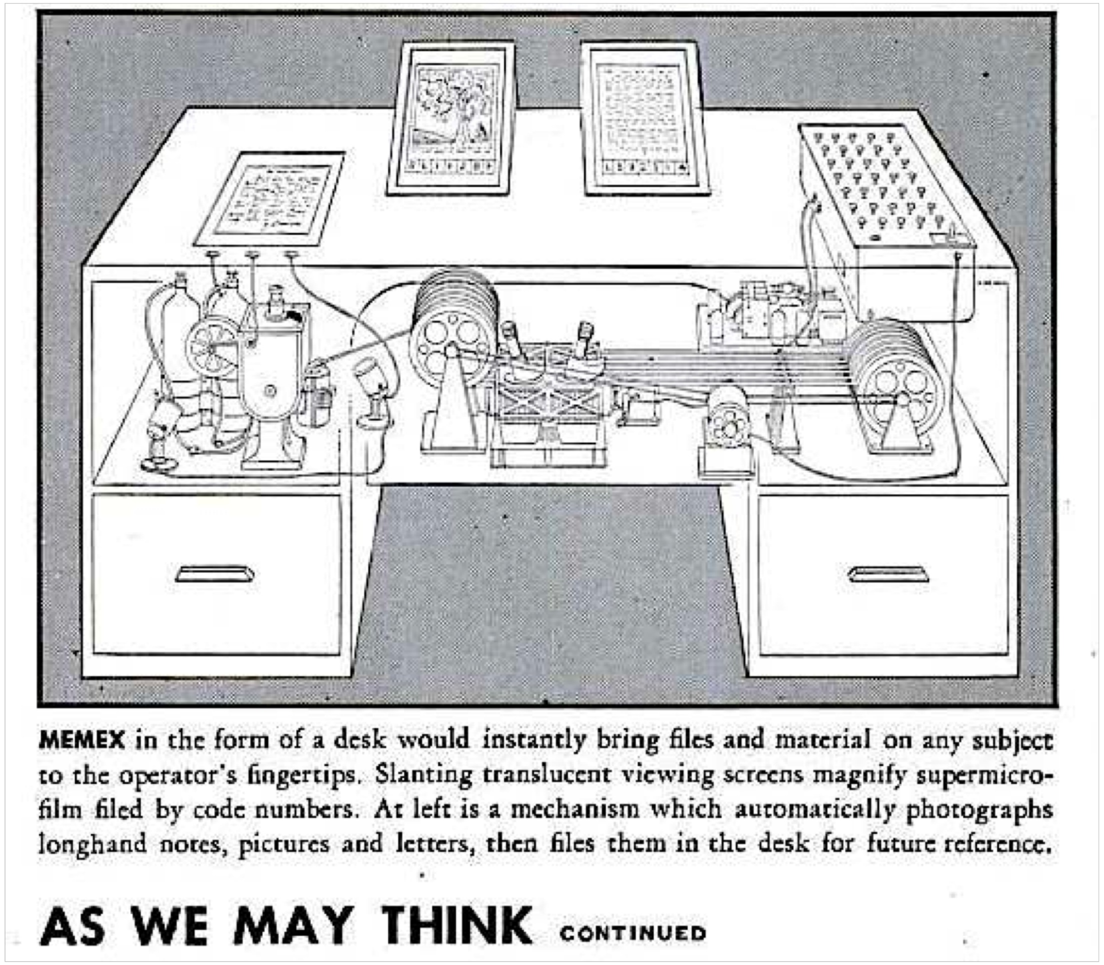
Professionally our methods of transmitting and reviewing the results of research are generations old and by now are totally inadequate for their purpose. If the aggregate time spent in writing scholarly works and in reading them could be evaluated, the ratio between these amounts of time might well be startling. Those who conscientiously attempt to keep abreast of current thought, even in restricted fields, by close and continuous reading might well shy away from an examination calculated to show how much of the previous month's efforts could be produced on call.

Mendel's concept of the laws of genetics was lost to the world for a generation because his publication did not reach the few who were capable of grasping and extending it. This sort of catastrophe is undoubtedly being repeated all about us as truly significant attainments become lost in the mass of the inconsequential.

Publication has been extended far beyond our present ability to make real use of the record. The summation of human experience is being expanded at a prodigious rate, and the means we use for threading through the consequent maze to the momentarily important item is the same as was used in the days of square-rigged ships.

But there are signs of a change as new and powerful instrumentalities come into use. Photocells capable of seeing things in a physical sense, advanced photography which can record what is seen or even what is not, thermionic tubes capable of controlling potent forces under the guidance of

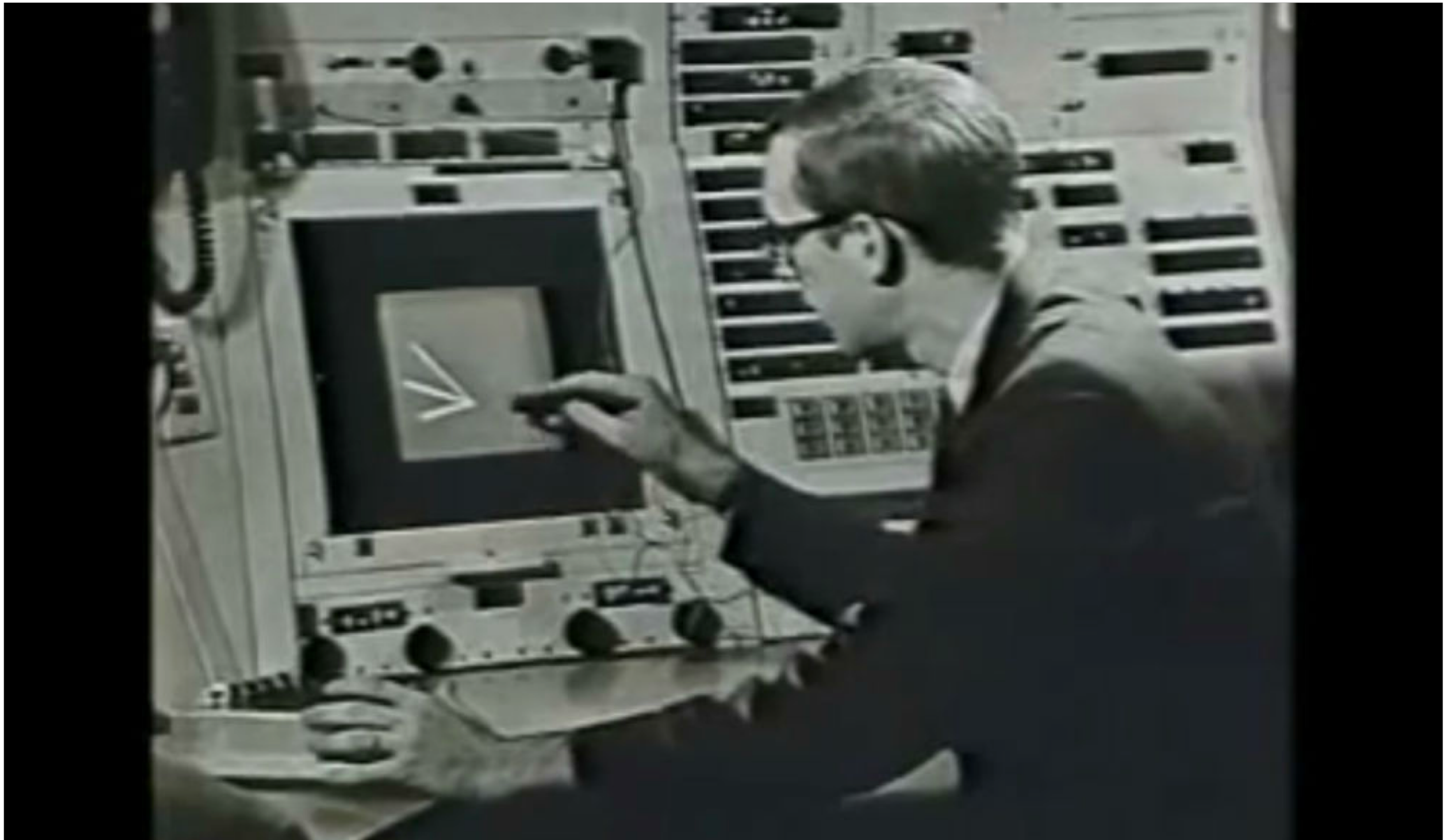
112



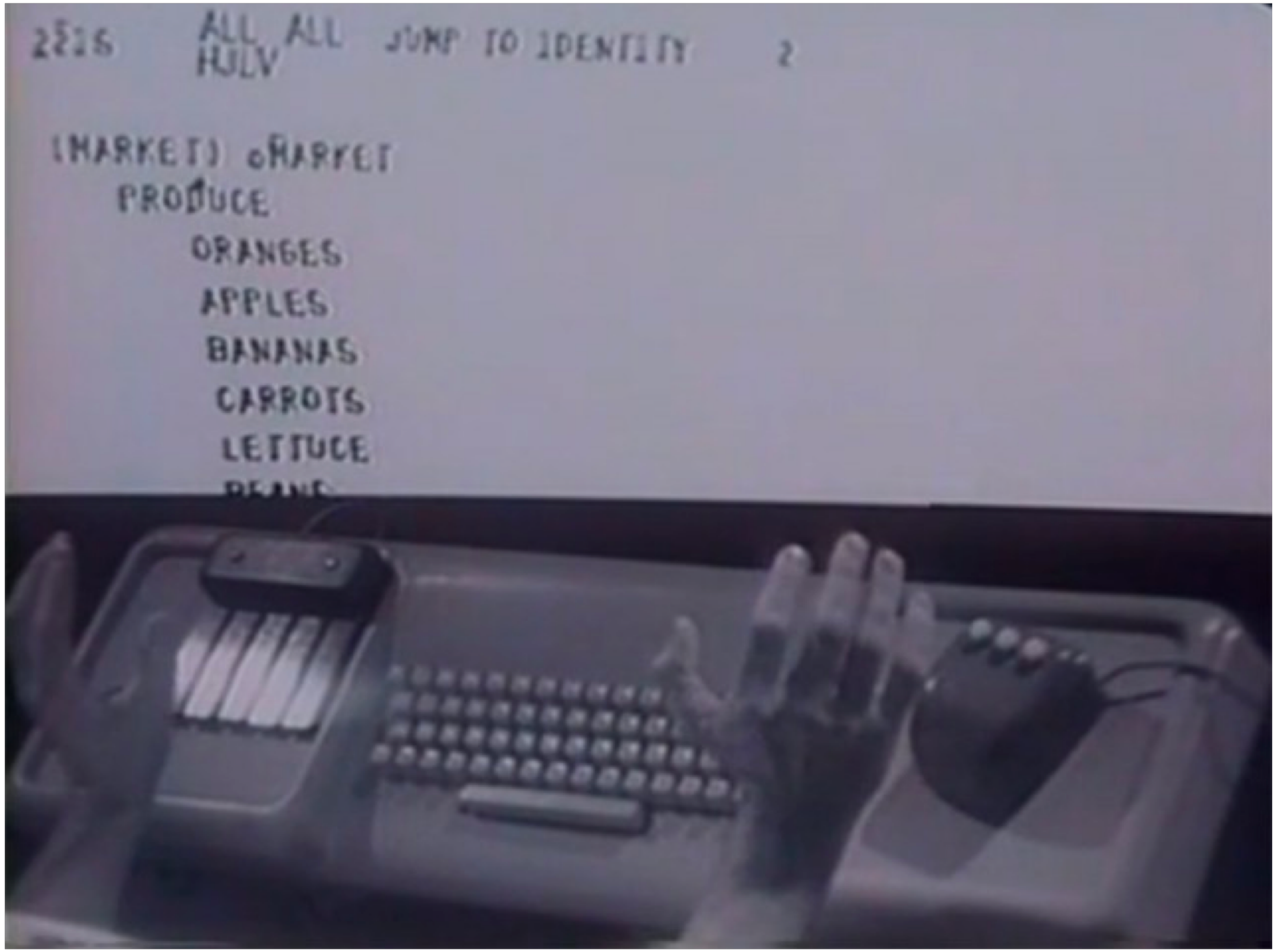
MEMEX in the form of a desk would instantly bring files and material on any subject to the operator's fingertips. Slanting translucent viewing screens magnify supermicrofilm filed by code numbers. At left is a mechanism which automatically photographs longhand notes, pictures and letters, then files them in the desk for future reference.

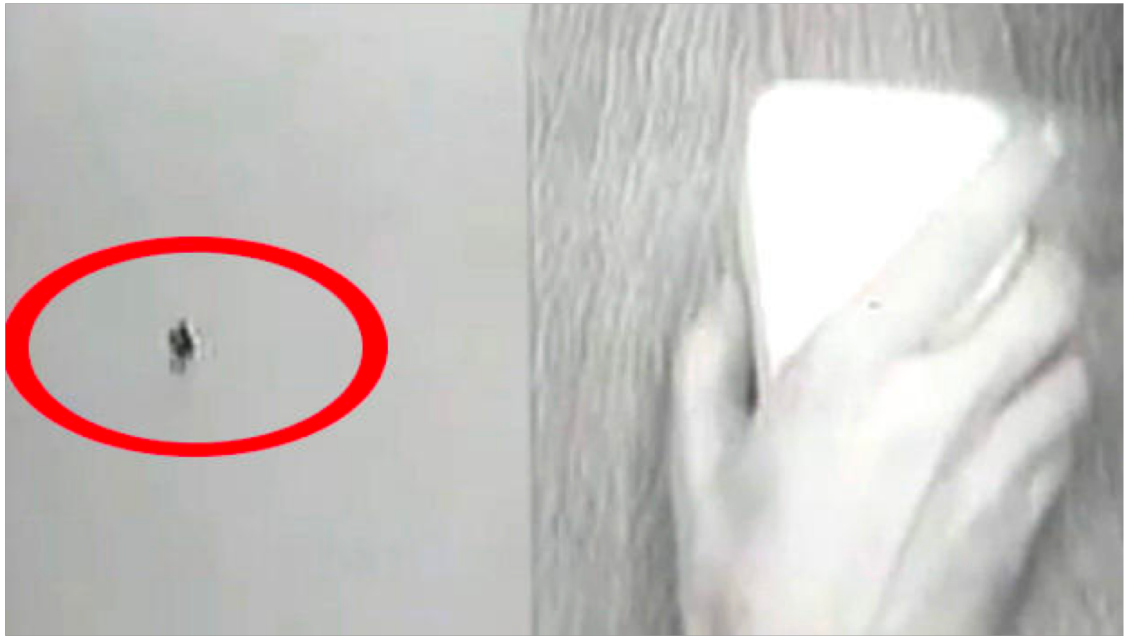
AS WE MAY THINK CONTINUED

1963: First Graphical User Interface
Ivan Sutherland’s CAD software, Sketchpad



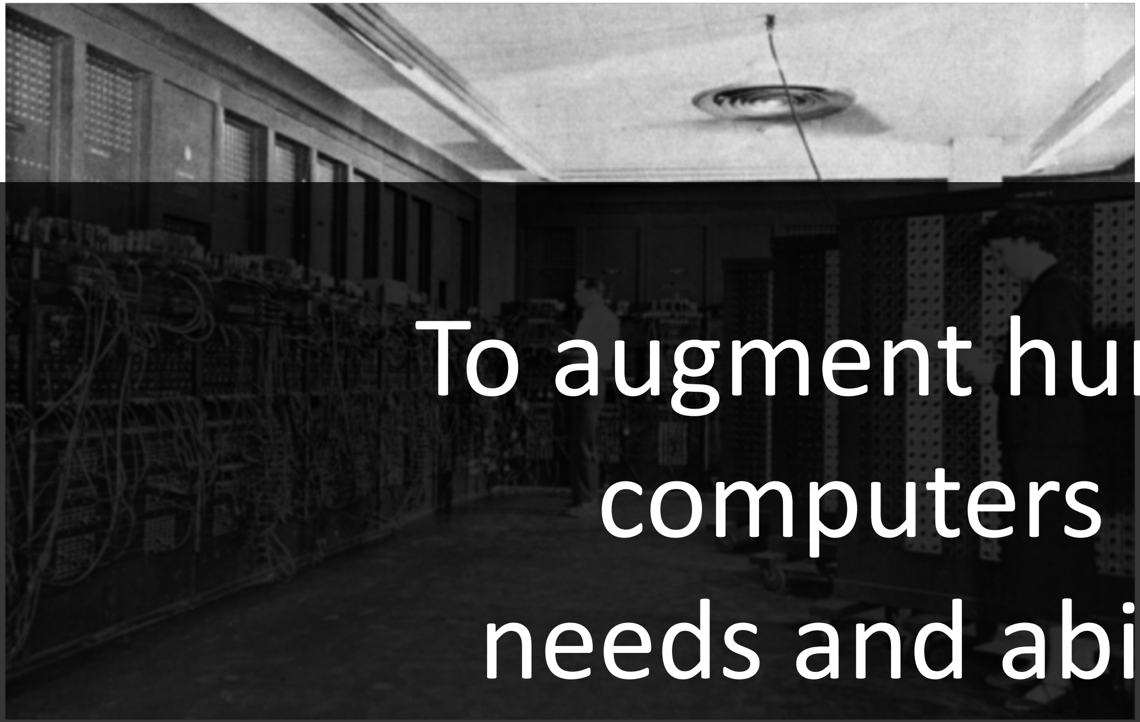
1968: Interaction devices for computer use. Douglas Engelbart’s mouse

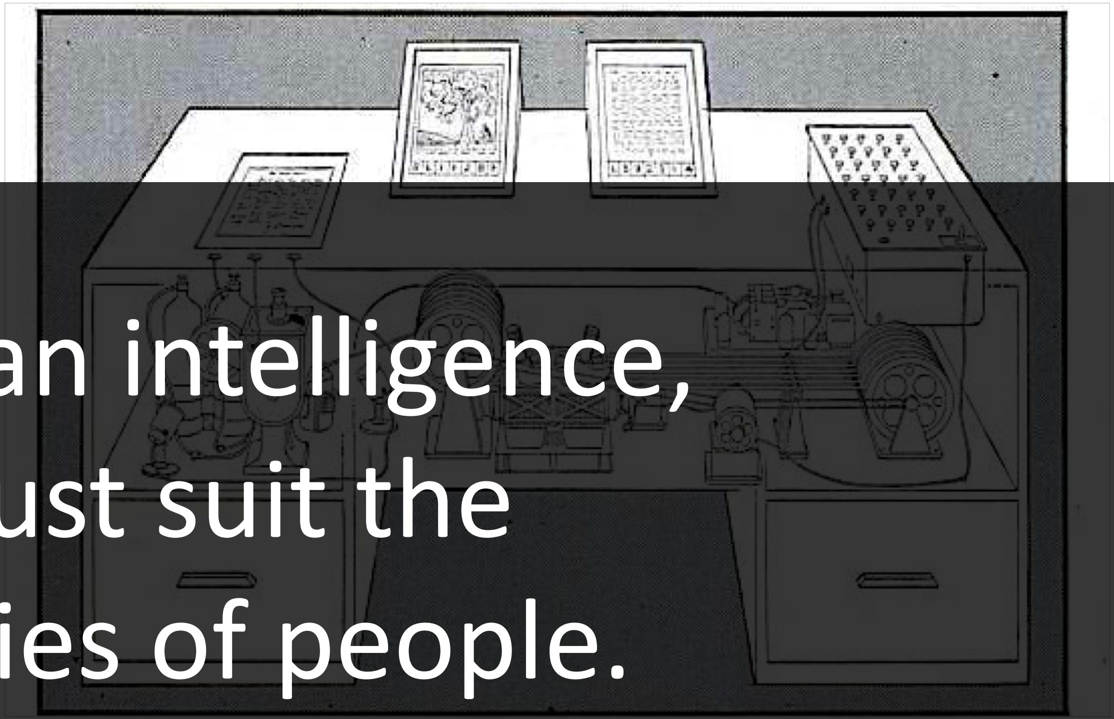




Computers: Tools for calculation.

Computers: Tools to augment human intelligence.



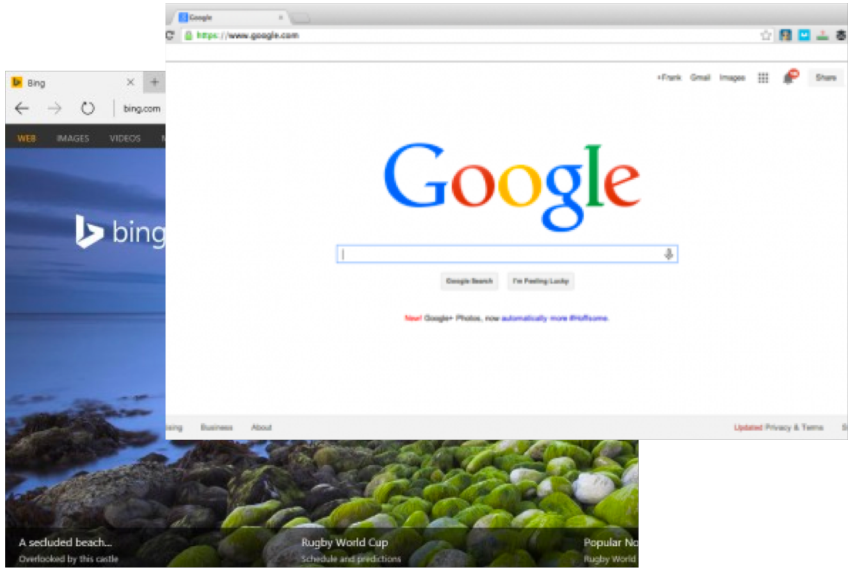


To augment human intelligence,
computers must suit the
needs and abilities of people.

Computer-centric
interface

Human-centric
interface

The Internet: The Rise of Usability



For physical products, users did not get to experience the usability of the product until **after they bought it**.

For desktop software, users call expensive support centers, but the costs aren’t “charged” to the software engineers, so they have **no motivation to ship great UIs.**

On the Web, users experience the usability of a site before they have committed to using it and **before they buy it.**

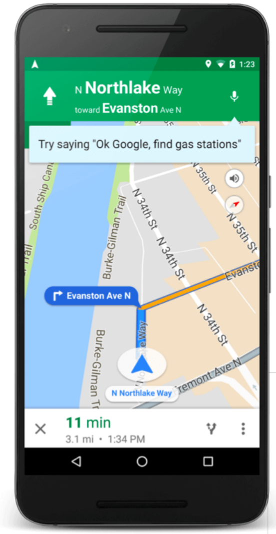
UI is now the primary “selling point” of software

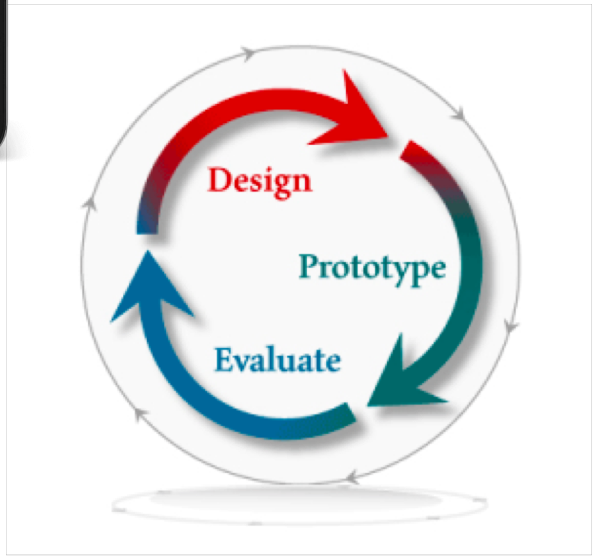
Nielsen, Jakob. *Designing Web Usability: The Practice of Simplicity*. (1999)

Goals of COMS 4170

1. Build websites that suit the **needs and abilities** of users.

2. When the needs and abilities of users are unclear, design systems by **learning from iteration** and experimentation.





Grading Buckets

- **A** >= 90%
- 90% > **B** >= 80%
- 80% > **C** >= 70%
- 70% > **D** >= 60%
- **F** > 60%

Grade breakdown

- **Weekly Homework: 70%**
  - 15 homework assignments
  - Each homework worth 5% of grade
  - We will drop your lowest HW grade
- **Participation: 15%**
  - Come to every class and speak up
  - Every class is worth ~0.5% of your grade
  - We will drop your two lowest participation grades.
- **<u>Individual</u> Final Project: 15%**
- No final exam

How we measure participation

- Speak up once during class
- After class, post to piazza two things:
  - what you said (just to remind us)
  - In your own words, write down one thing you learned or remember
- Due by 6pm

Late Policy for Homework

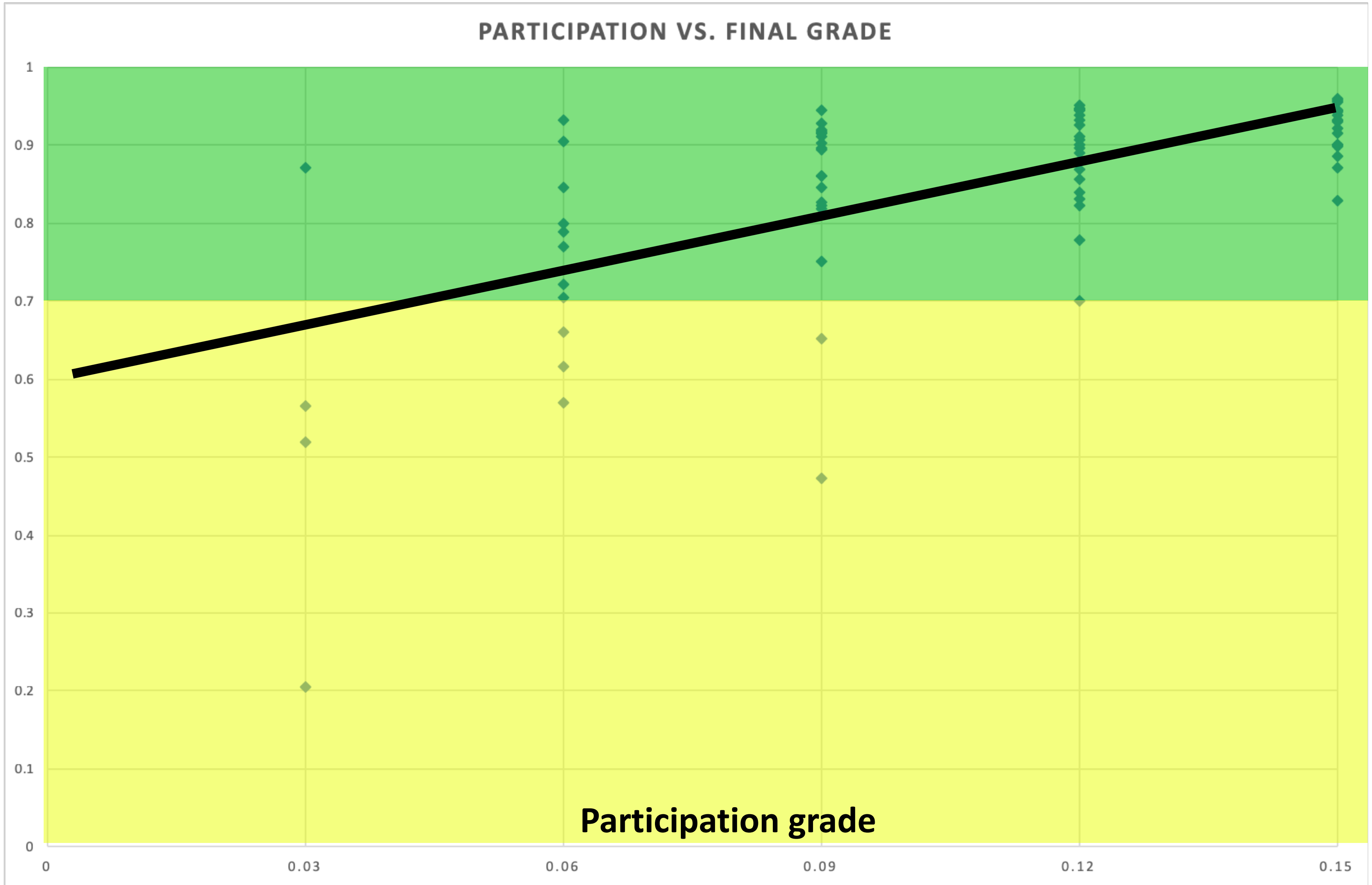
- Assignments are due Friday at 4pm
  - There is a small grace period, which we will not announce.
  - Assume it is 10 minutes.
- Assignments turned in up to 24 hours late get 10% deducted (Sat 4pm)
- Assignments turned in up to 48 hours late get 20% deducted (Sun 4pm)
- Assignments turned in up to 72 hours late get 30% deducted (Mon 4pm)
- After 4pm, work cannot be accepted because we will discuss solutions in class.
- If you are ill or have other difficulties,
  - Email Prof Chilton before the class/due date to let us know.
  - Provide note from a doctor or advising dean
  - Email me a plan for when you will submit the work
  - It can't be later than 72 hours (Monday 4pm)

Participation make up policy for excused absences

- Email Prof Chilton before the class
- Provide note from a doctor or advising dean
- Write a 1-page summary of the key points of the lecture
- Bring it to a staff member during office hours to go over it.

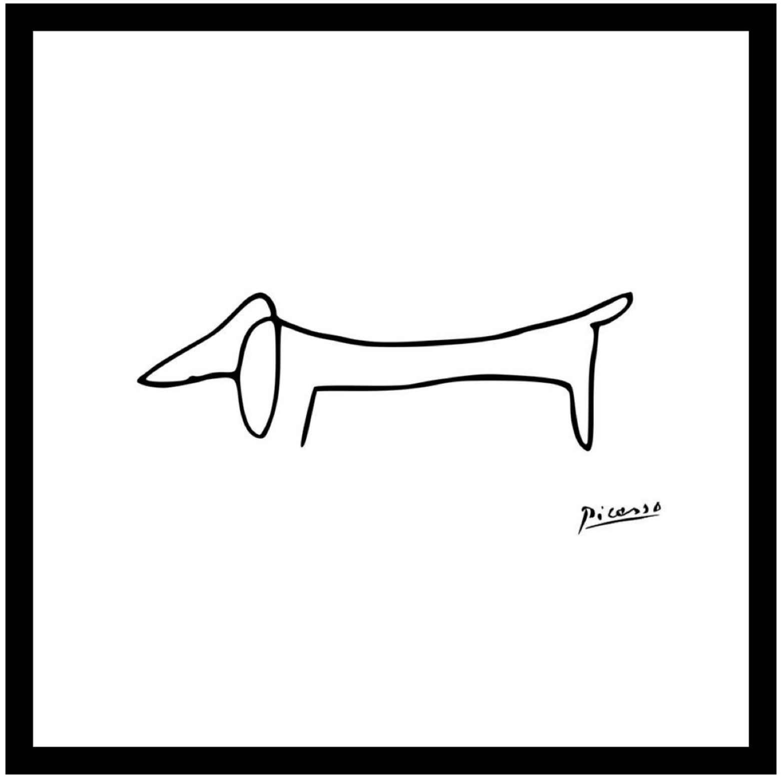
Attendance is crucial to understanding the material

Final Grade
(participation portion omitted)



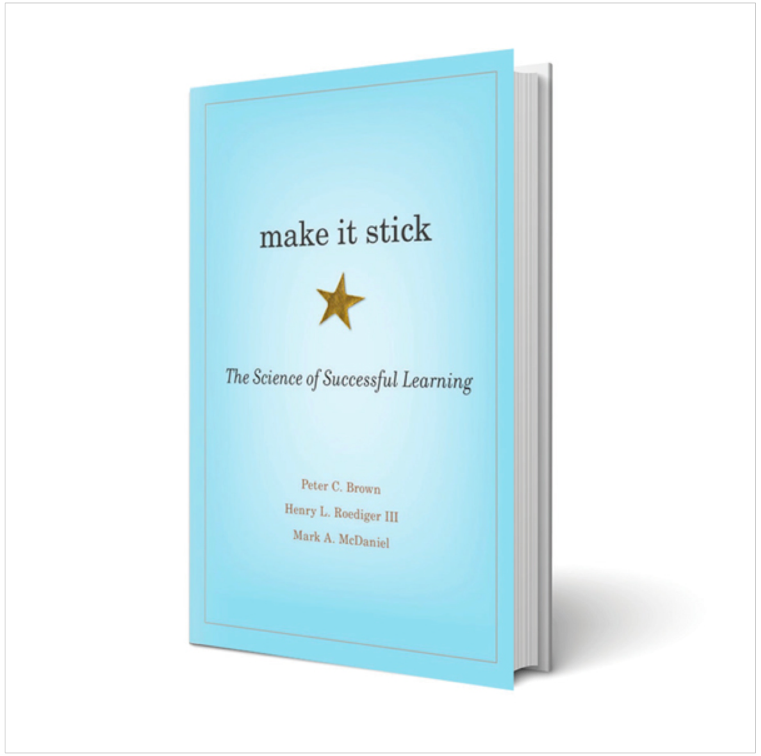
A
B
C
D
F

Please don’t underestimate this class

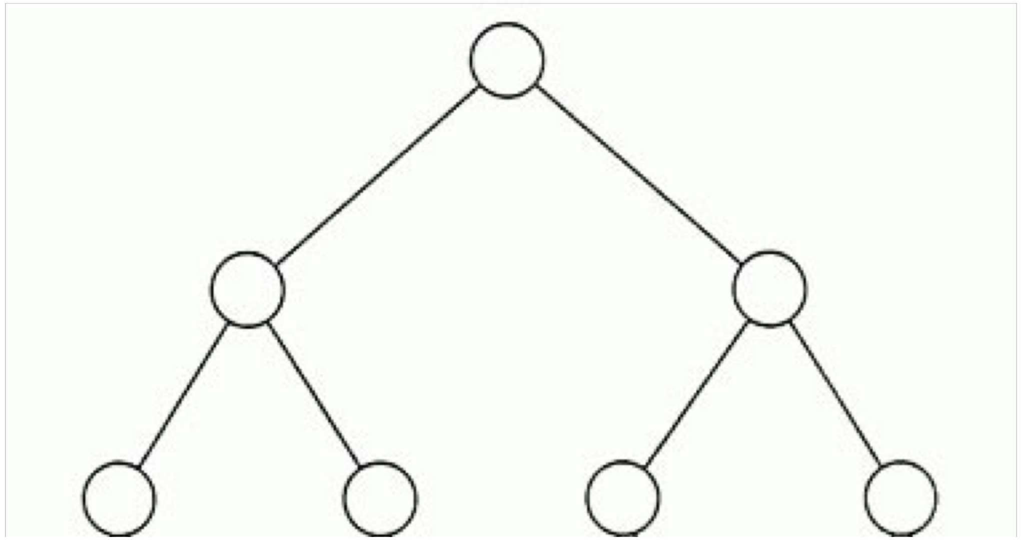


Simple, functional design is deceptively difficult

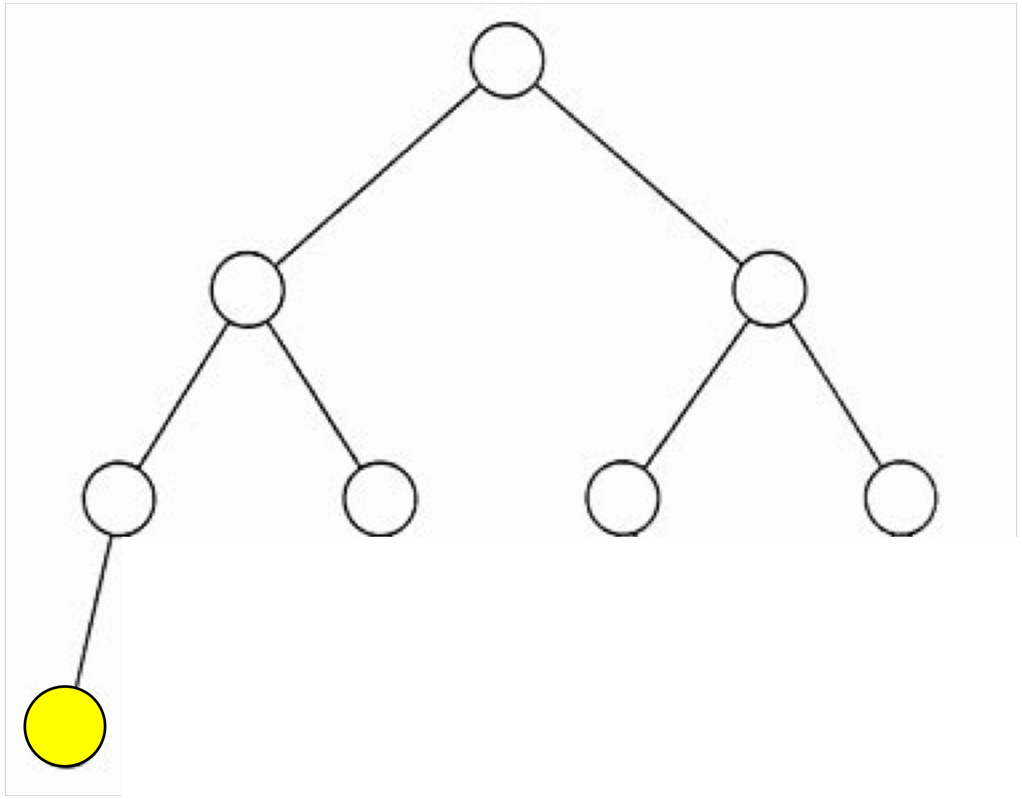
Why is participation 15% of my grade?



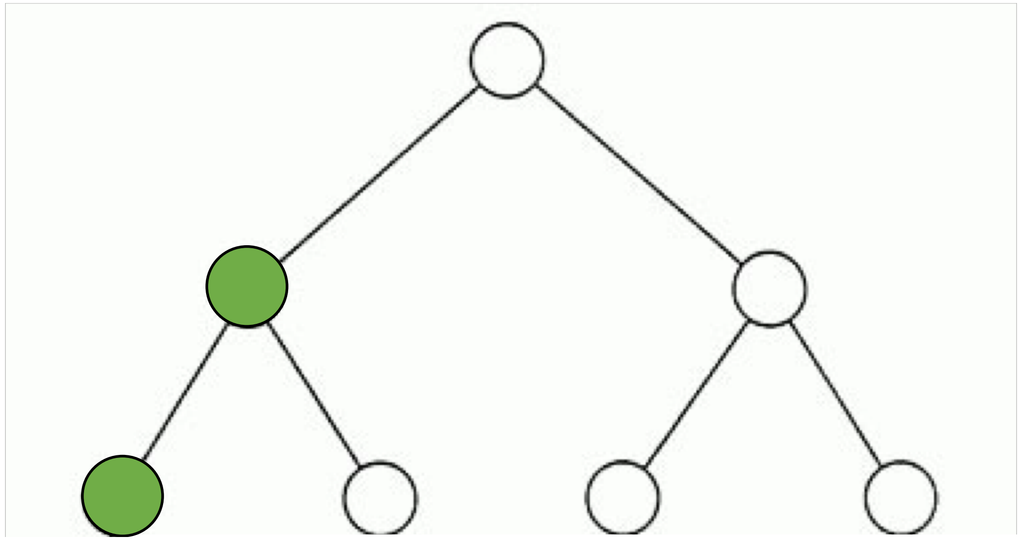
Human memory is tree-structured



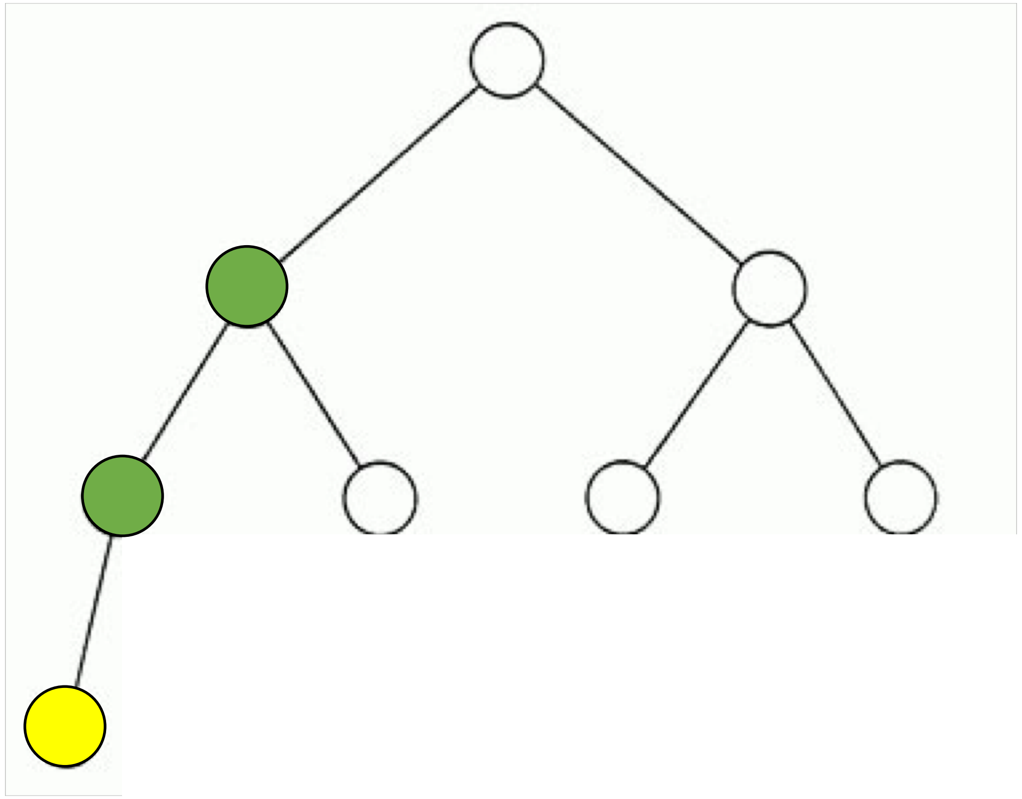
New knowledge gets appended to the tree.



Where does new knowledge get appended?
To where nodes of tree are currently active.

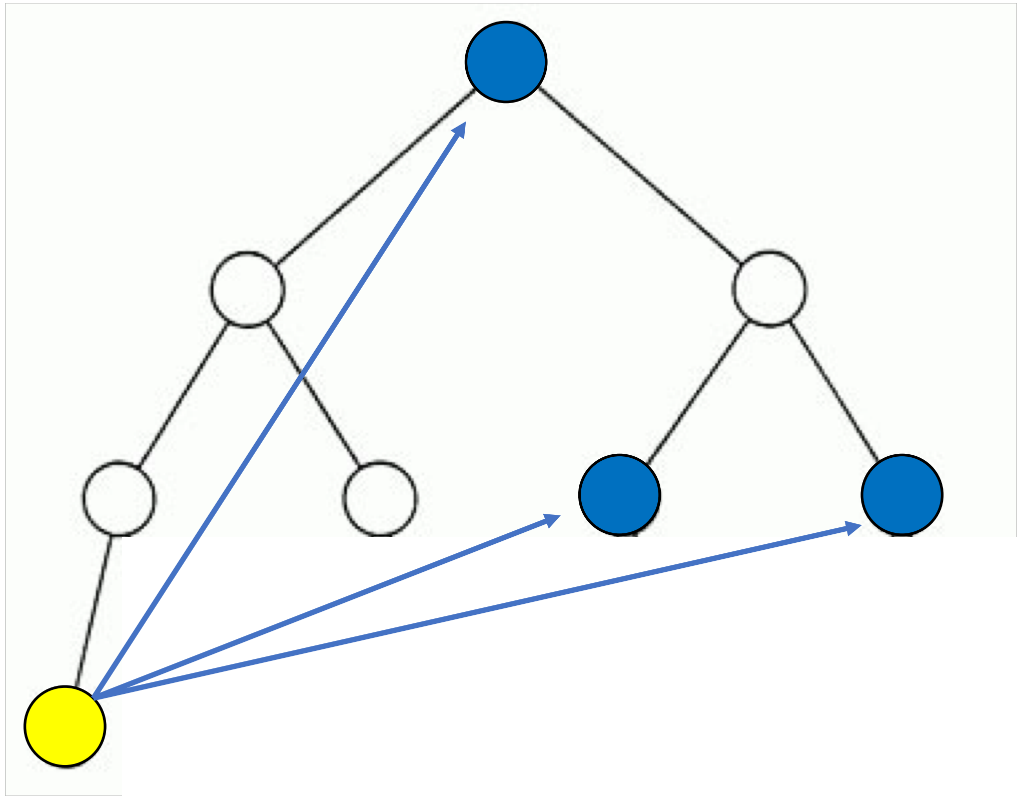


By guessing about new knowledge before it is presented, you warm up the right place for it in memory.

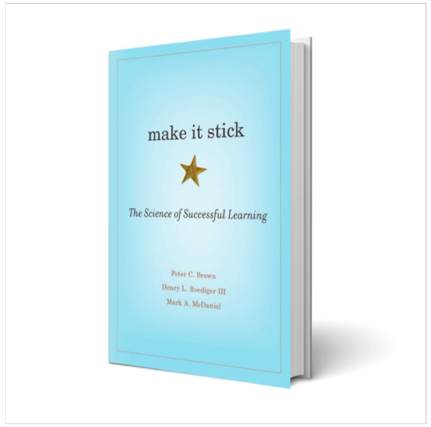


Generation: Guessing before you hear the answer

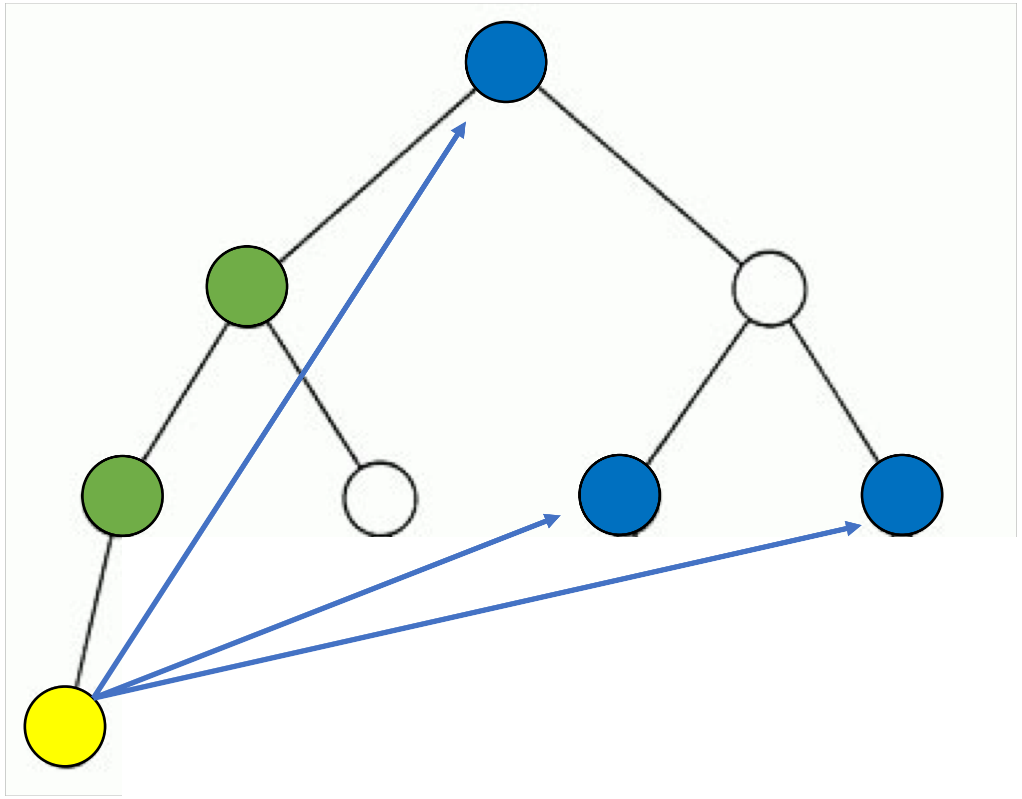
Once you hear the new knowledge, you want to connect it to connect other to other knowledge so it will trigger when relevant.



Elaboration: Relating new knowledge to old topics.



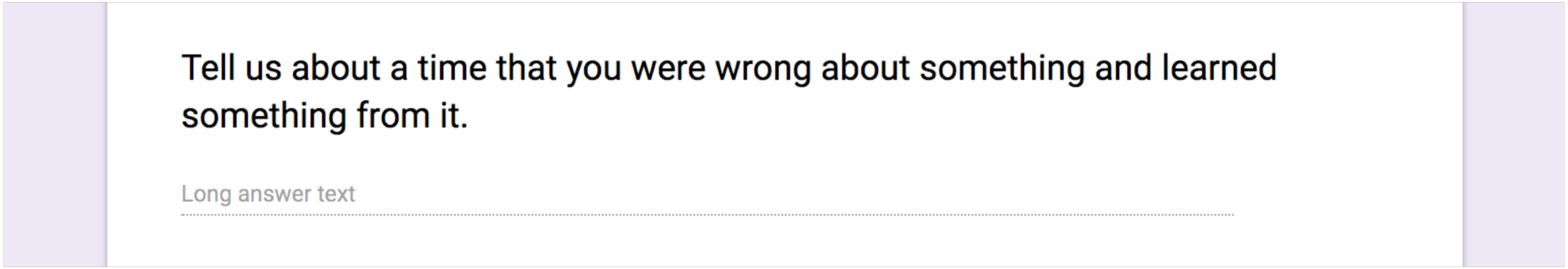
Generation & Elaboration



Guess about the new knowledge.
Must take risks, you will probably be (partially) wrong.

Relate new knowledge to old topics.
This aspect of participation is about providing insights.

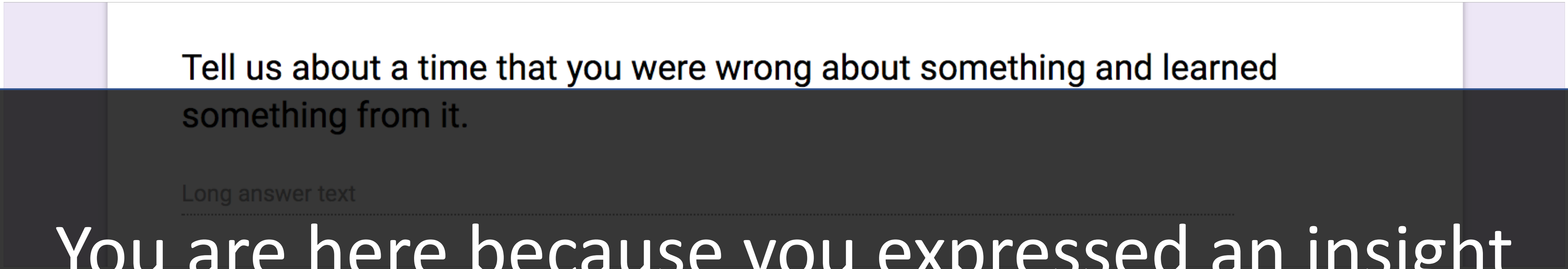
Learning from mistakes is good



Tell us about a time that you were wrong about something and learned something from it.

Long answer text

Learning from mistakes is good



Tell us about a time that you were wrong about something and learned something from it.

Long answer text

You are here because you expressed an insight about a time you learned from a mistake.

You were admitted to the this class because you were able to express an insight from a time you made a mistake.

Lecture 1:
10 Usability Heuristics

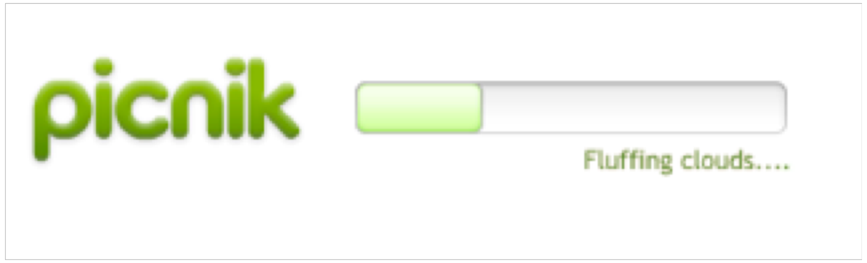
No screens

Prof. Chilton
COMS 4170
23 January 2019

Say your name

1. Visibility of system status

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.



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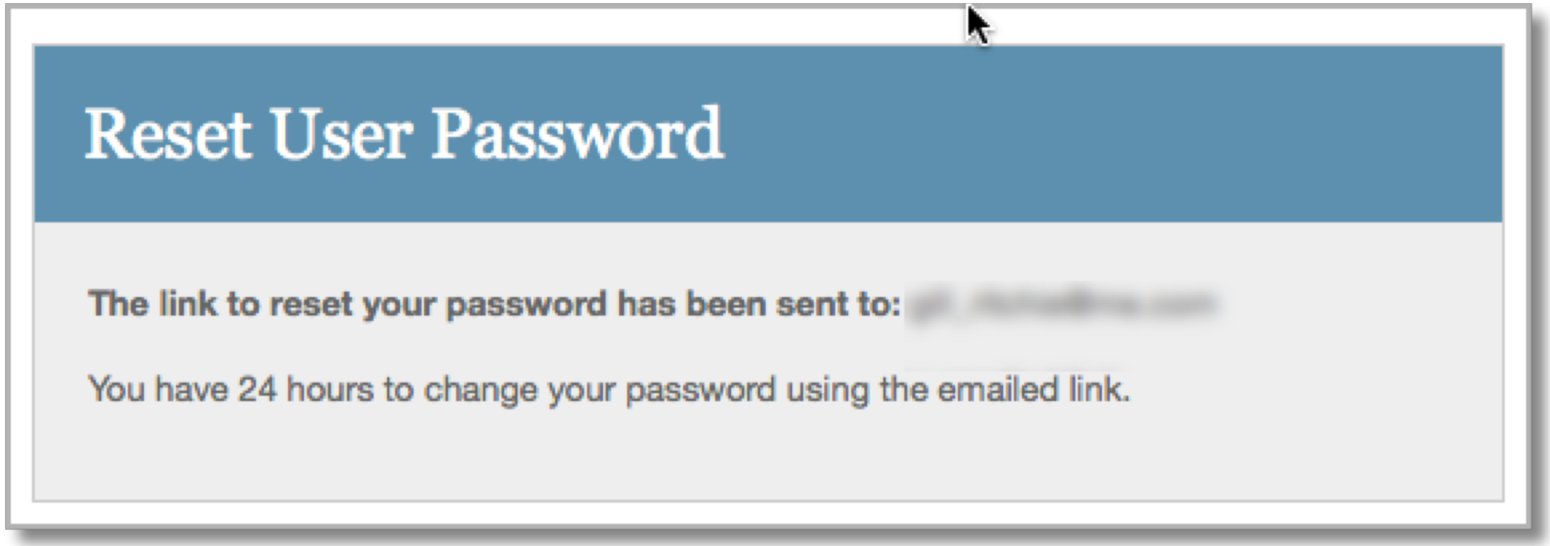


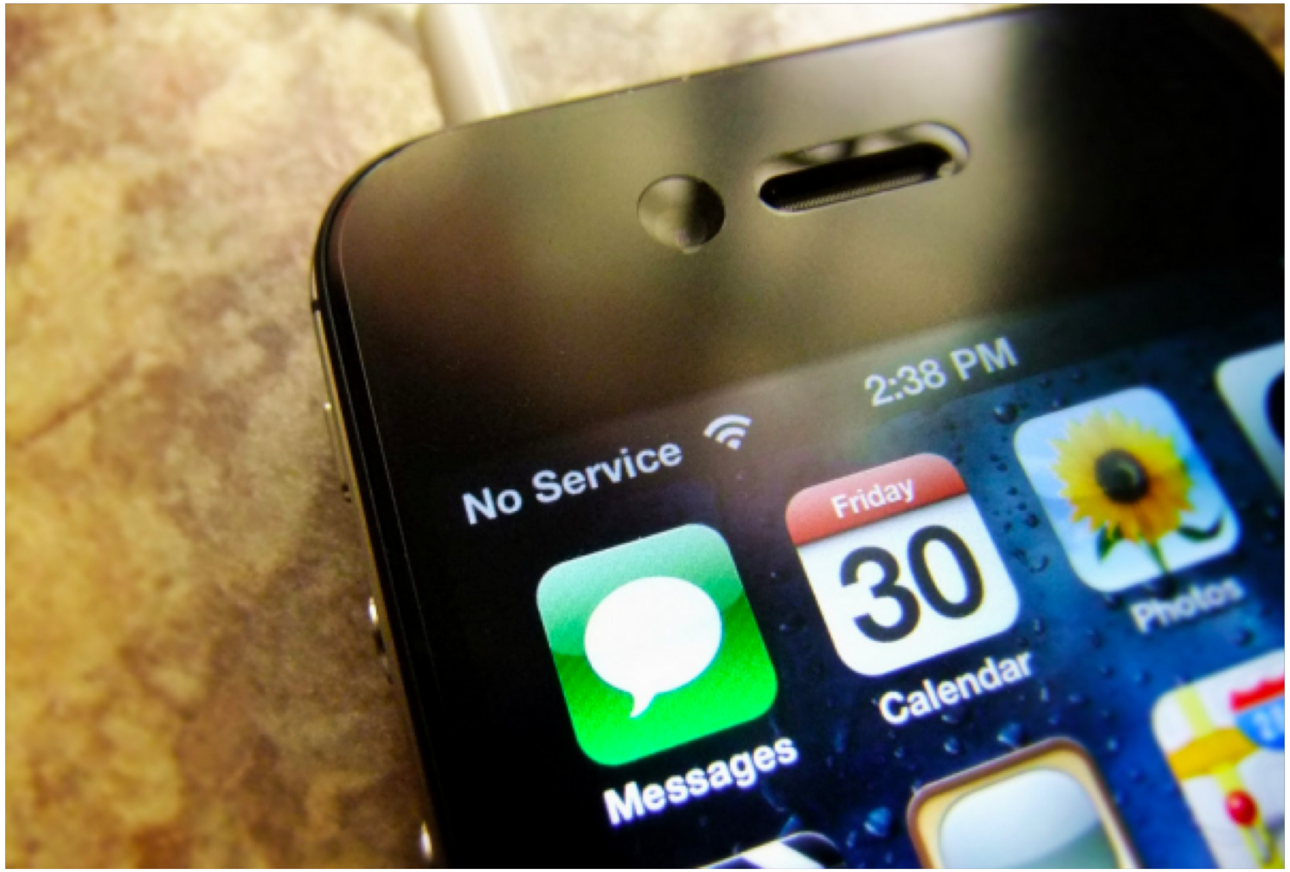
Reset User Password

The link to reset your password has been sent to: [redacted]

You have 24 hours to change your password using the emailed link.

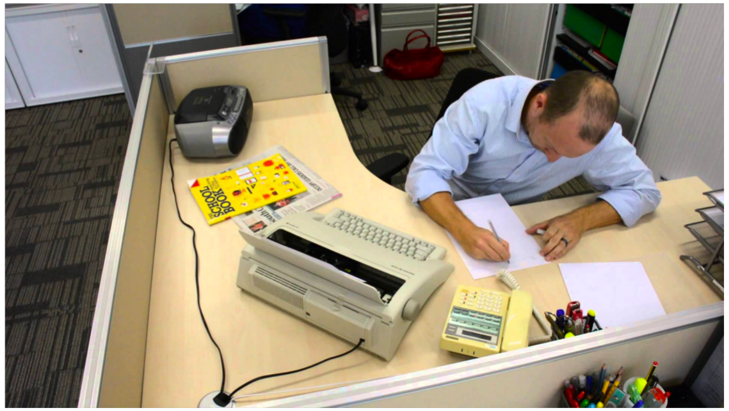
1. Visibility of system status

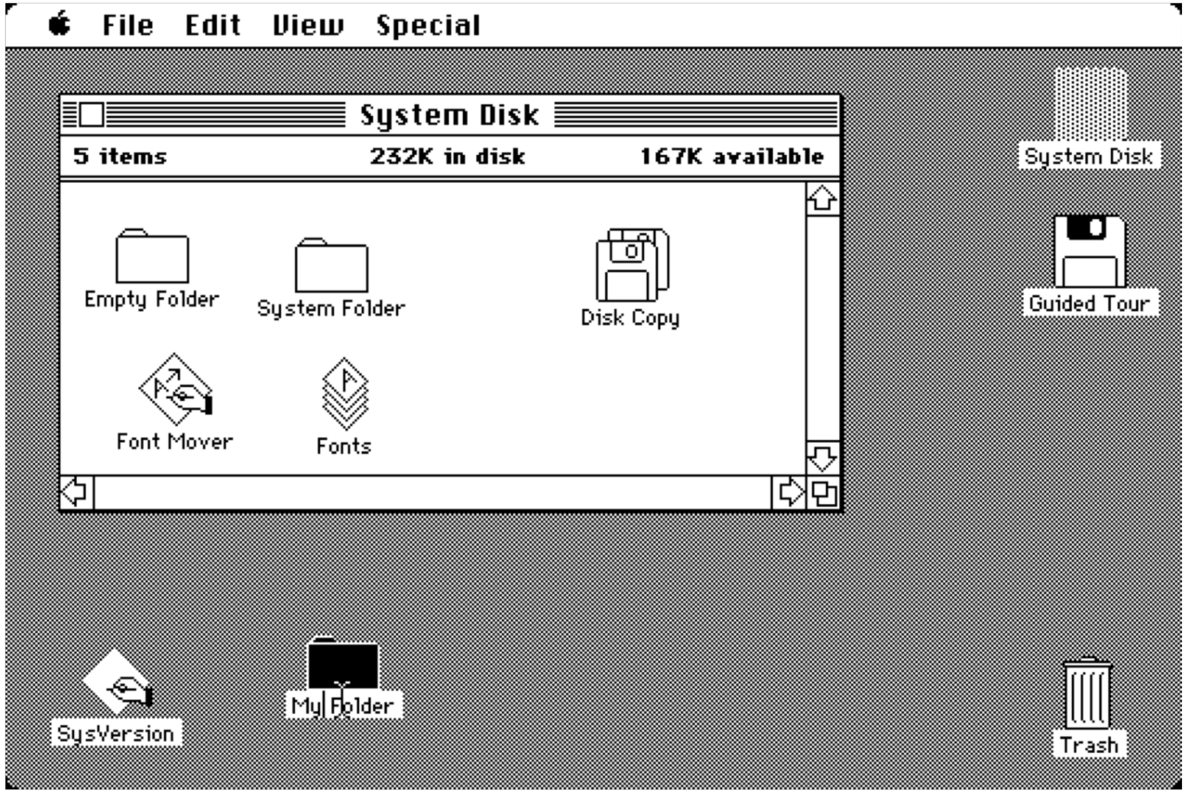
The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.



2. Match between system and the real world

The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms.





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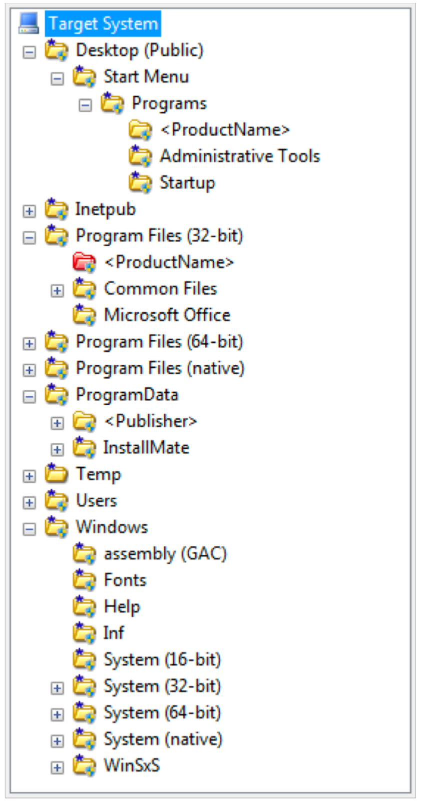
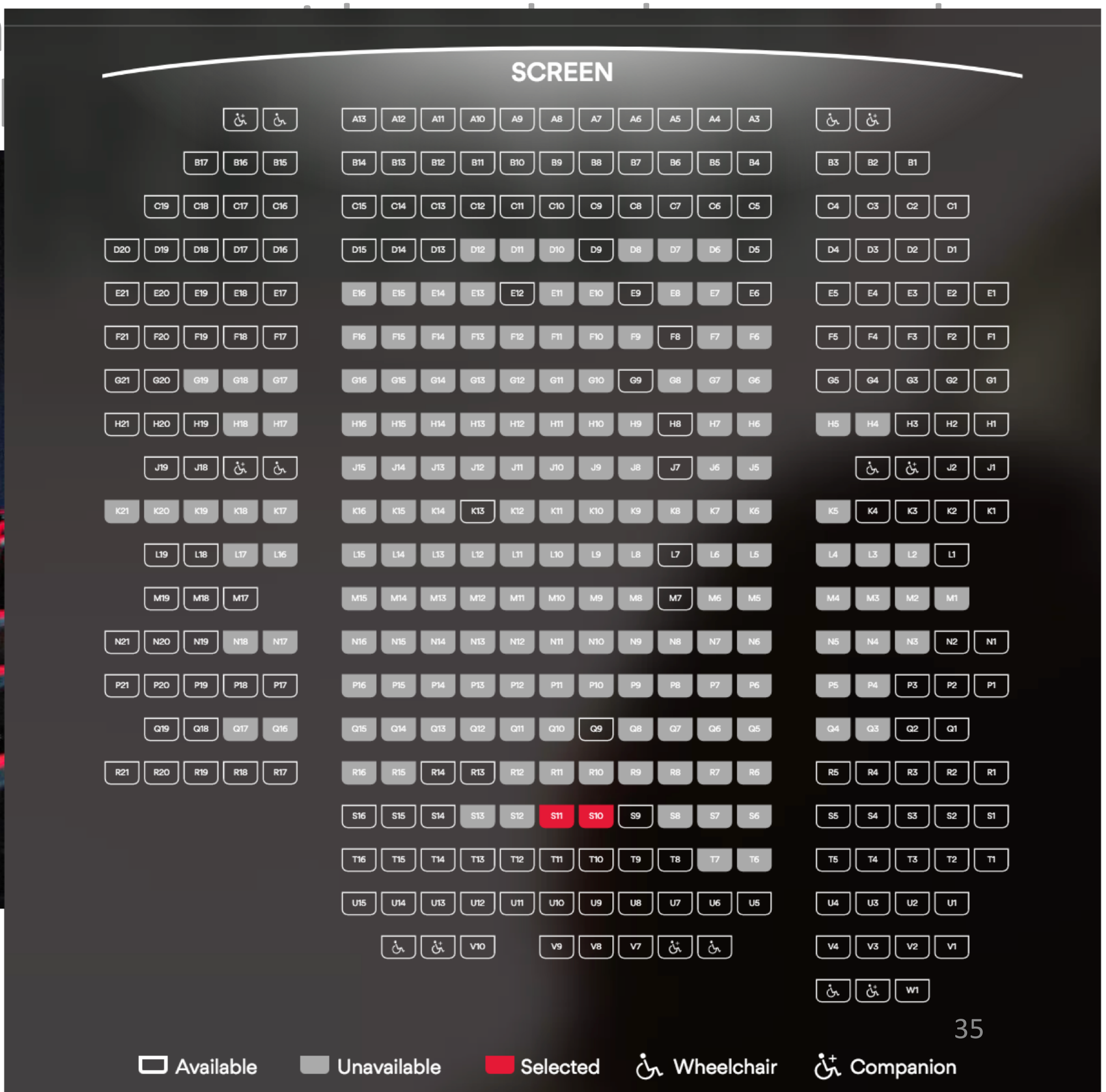


- Target System
  - Desktop (Public)
    - Start Menu
      - Programs
        - <ProductName>
        - Administrative Tools
        - Startup
  - Inetpub
  - Program Files (32-bit)
    - <ProductName>
    - Common Files
    - Microsoft Office
  - Program Files (64-bit)
  - Program Files (native)
  - ProgramData
    - <Publisher>
    - InstallMate
  - Temp
  - Users
  - Windows
    - assembly (GAC)
    - Fonts
    - Help
    - Inf
    - System (16-bit)
    - System (32-bit)
    - System (64-bit)
    - System (native)
    - WinSxS

2. Match between system and the real world

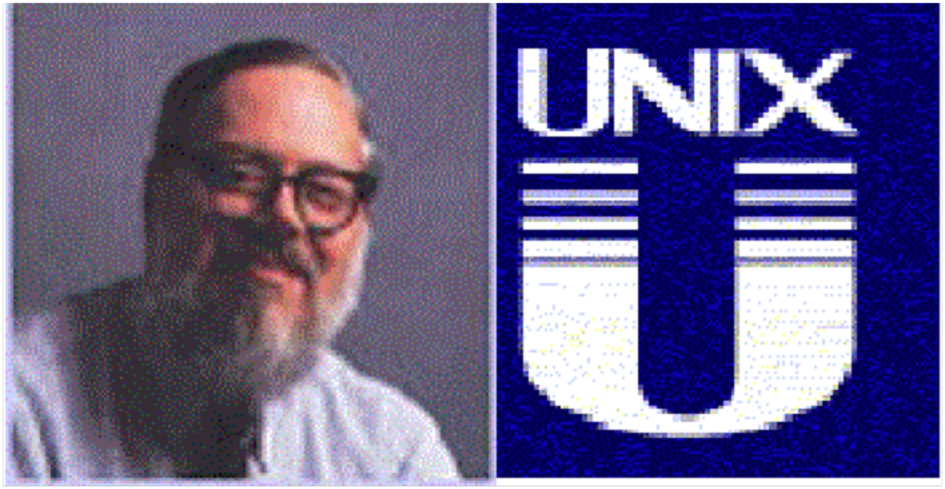
The system should speak the users' la

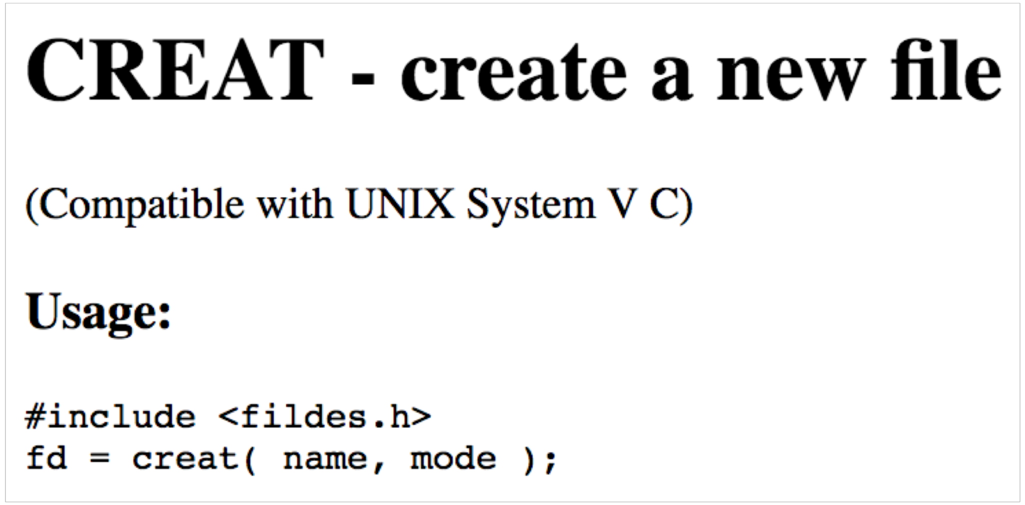
concepts familiar to the user, rather t



2. Violation: Match between system and the real world

The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms.





CREAT - create a new file

(Compatible with UNIX System V C)

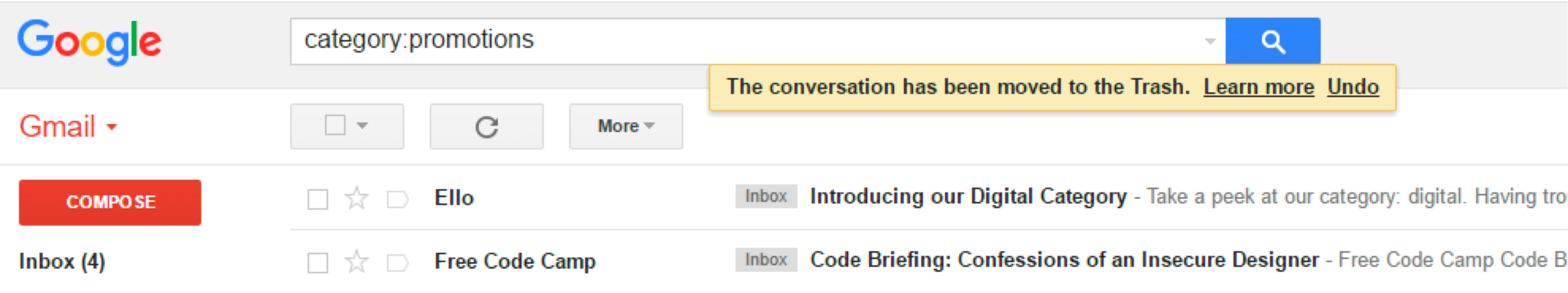
Usage:

```
#include <fildes.h>
fd = creat( name, mode );
```

"I'd spell `creat` with an `e`."

3. User control and freedom (Navigation)

Users often choose system functions by mistake and will need easy ways to fix the mistakes. Support undo and redo.



The conversation has been moved to the Trash. Learn more Undo

Ello	Inbox	Introducing our Digital Category - Take a peek at our category: digital. Having tro
Free Code Camp	Inbox	Code Briefing: Confessions of an Insecure Designer - Free Code Camp Code B

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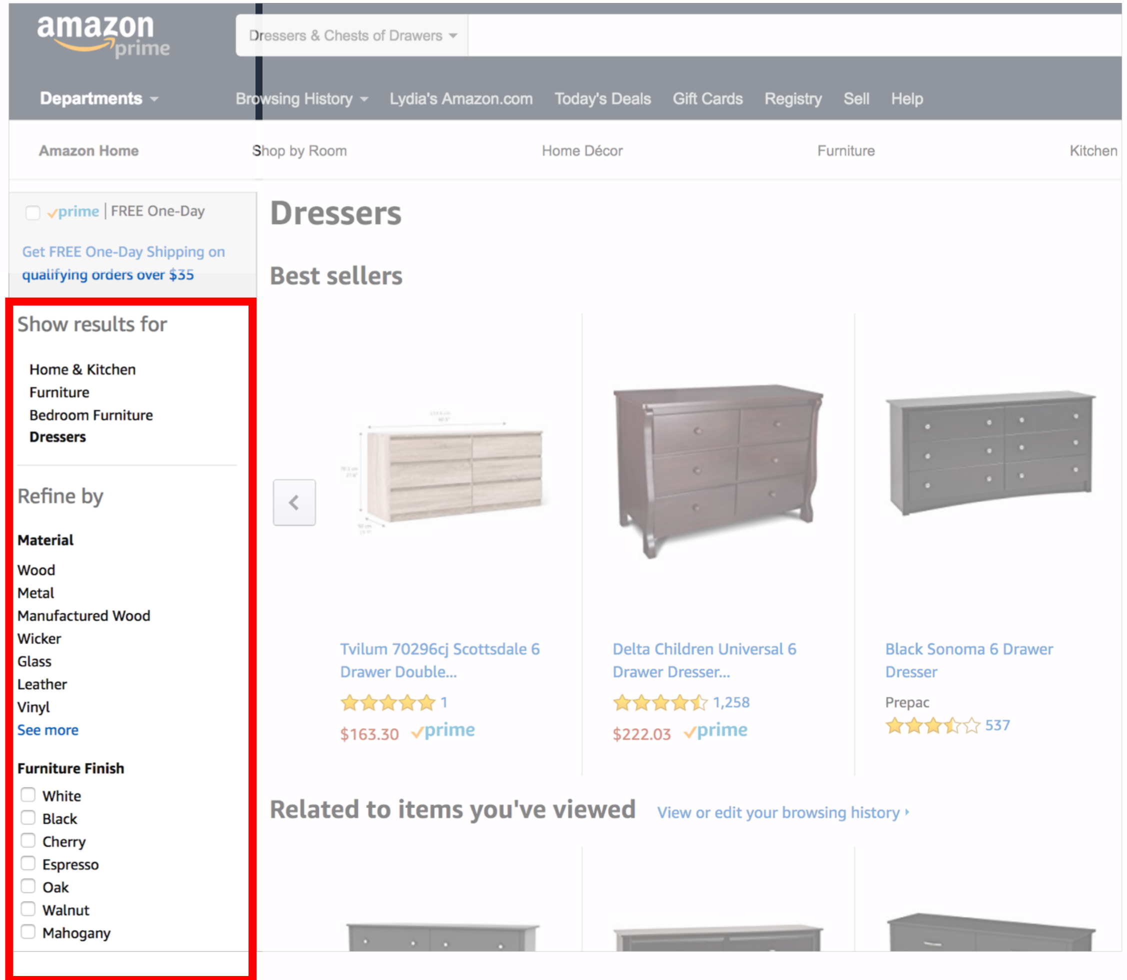

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Bedroom Furniture
Dressers

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Furniture Finish

□ White
□ Black
□ Cherry
□ Espresso
□ Oak
□ Walnut
□ Mahogany

Dressers

Best sellers

Tvilum 70296cj Scottsdale 6 Drawer Double...
1
$163.30 prime

Delta Children Universal 6 Drawer Dresser...
1,258
$222.03 prime

Black Sonoma 6 Drawer Dresser
Prepac
537

Related to items you've viewed

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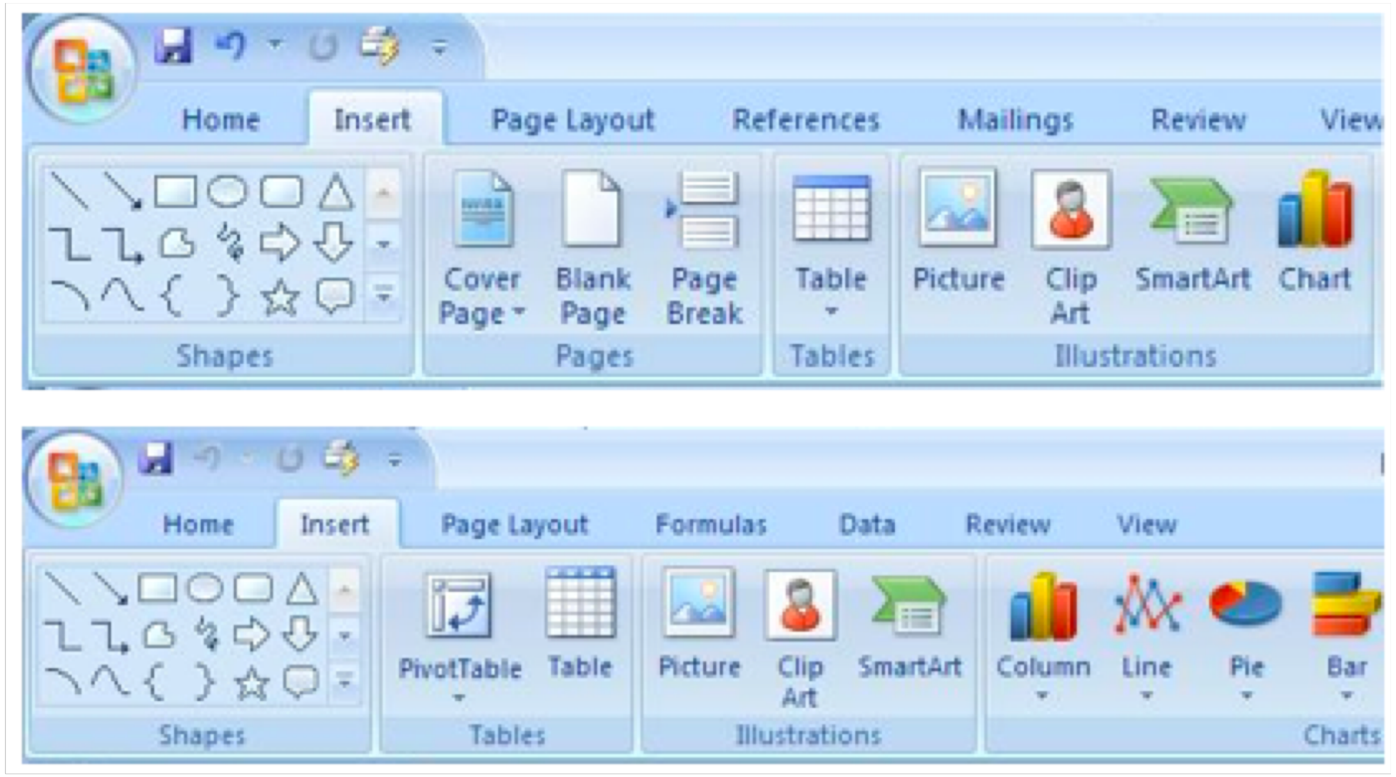
4. Consistency and standards

Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.



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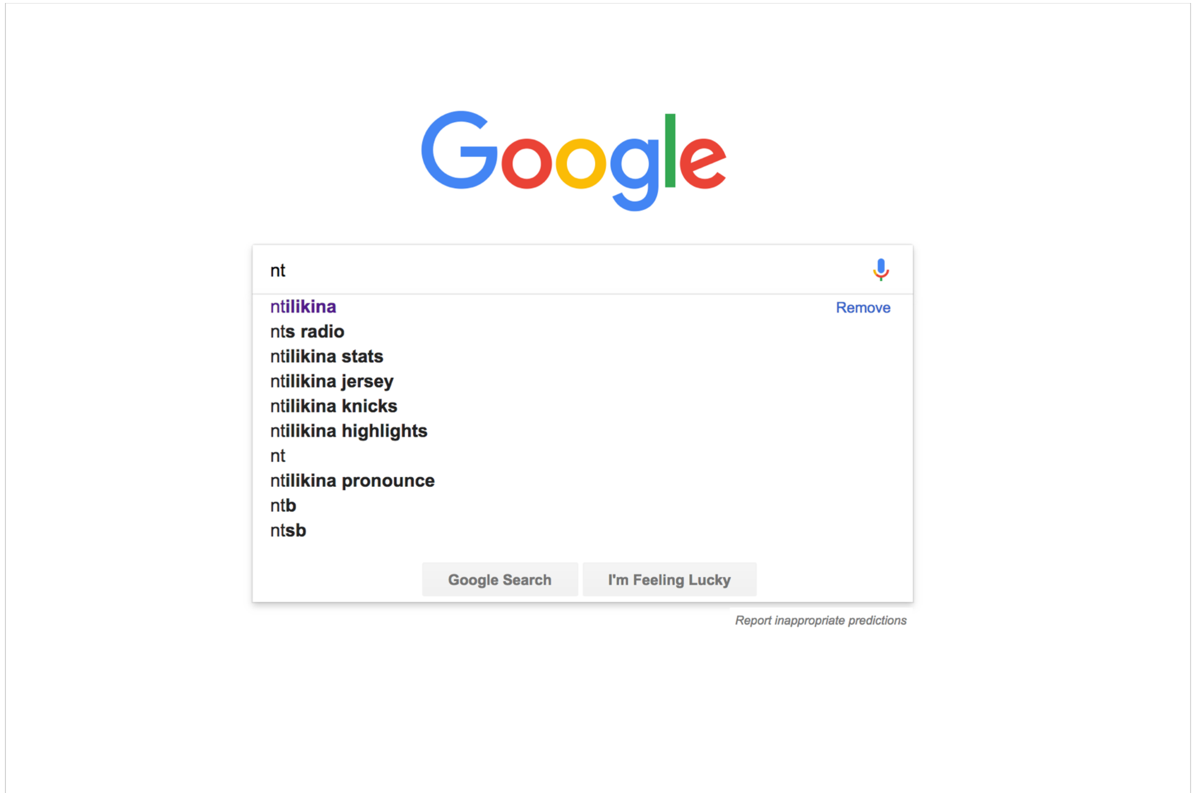
5. Error prevention

Even better than good error messages is a careful design which prevents a problem from occurring in the first place.



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5. Error prevention

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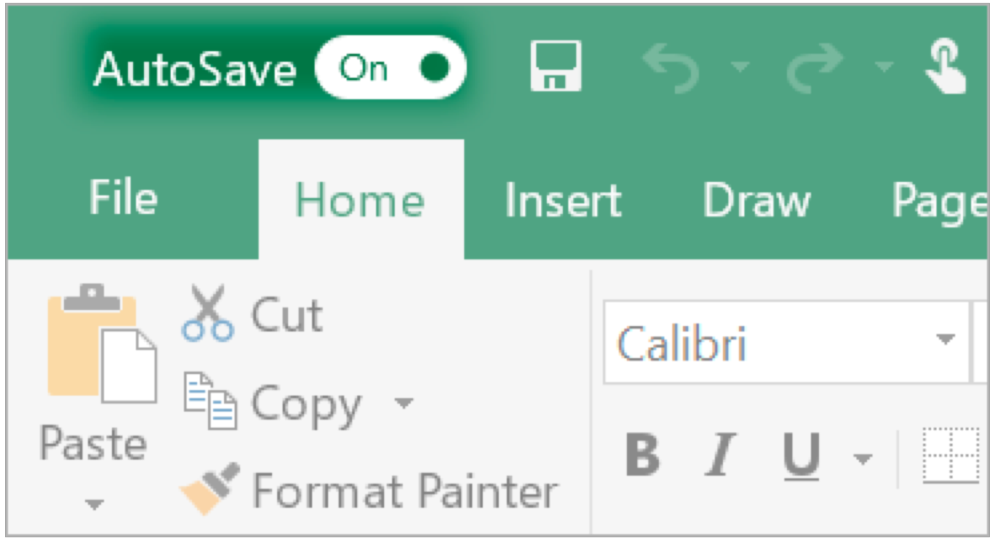
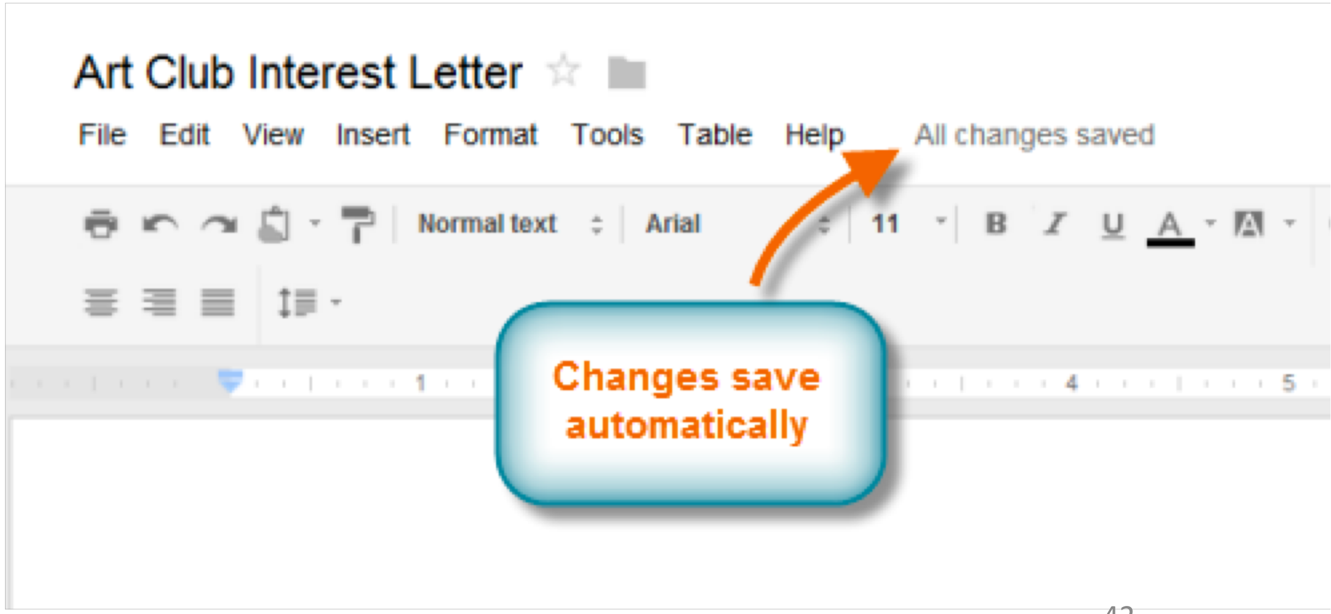
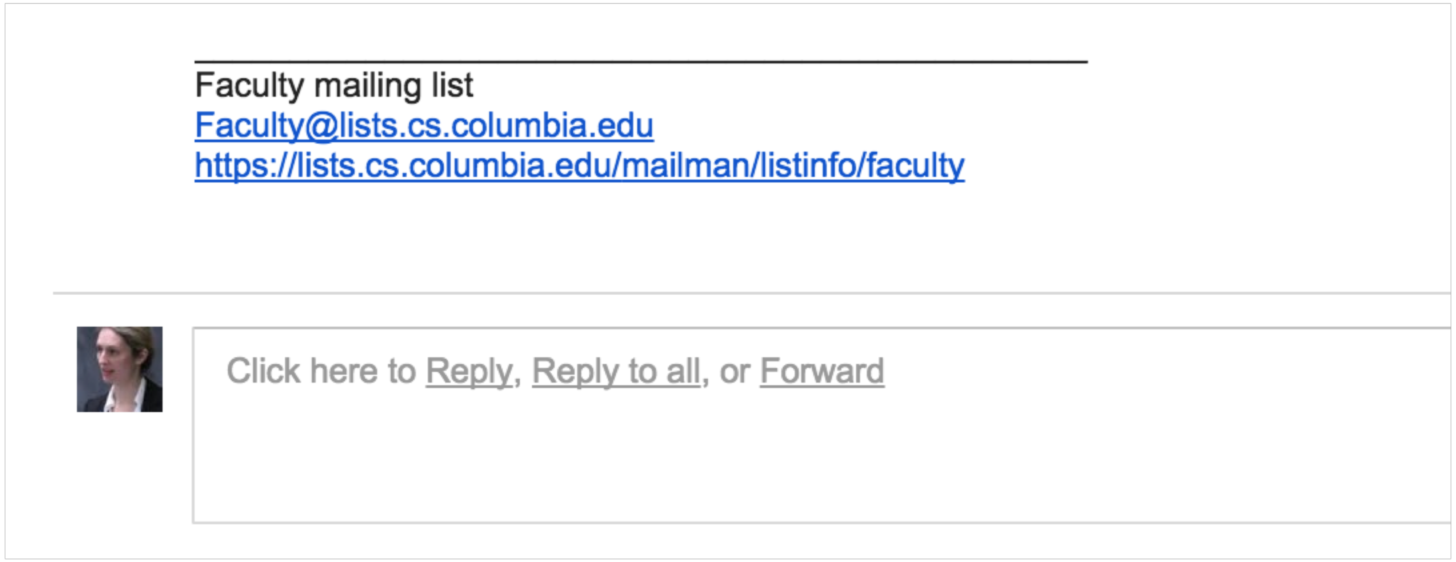




Changes save automatically

5. Violation: Error prevention

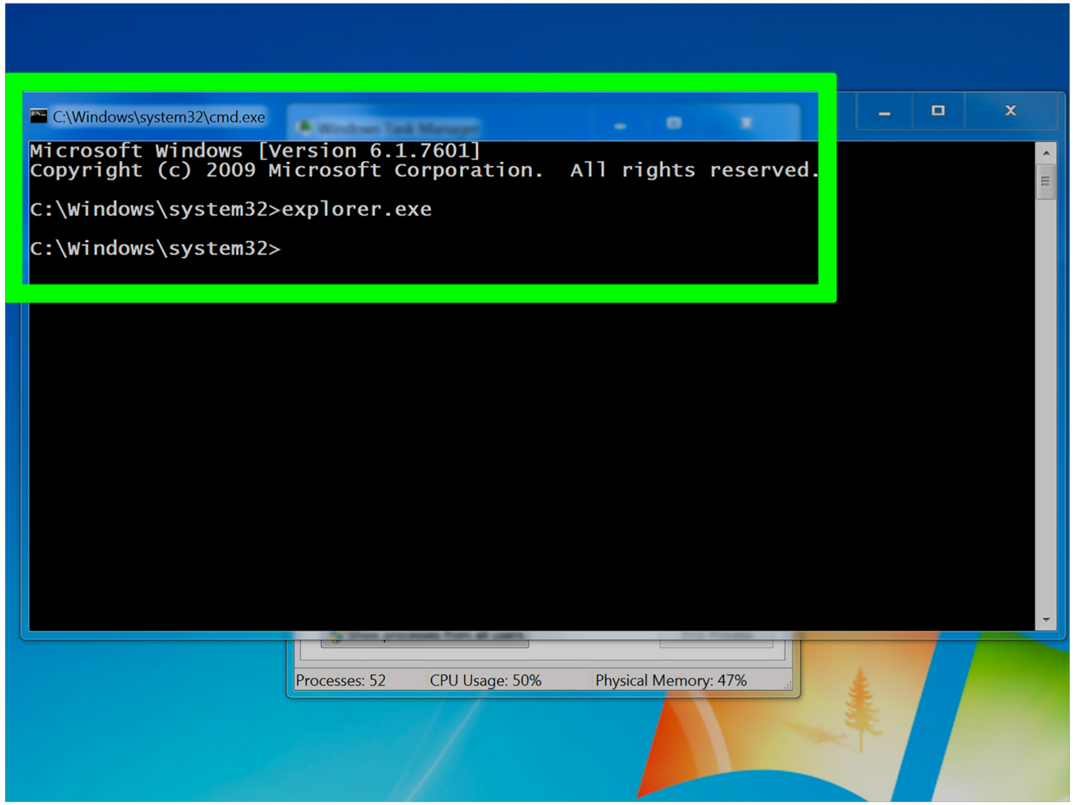
Even better than good error messages is a careful design which prevents a problem from occurring in the first place.



Faculty mailing list
Faculty@lists.cs.columbia.edu
https://lists.cs.columbia.edu/mailman/listinfo/faculty

6. Recognition rather than recall

Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another.

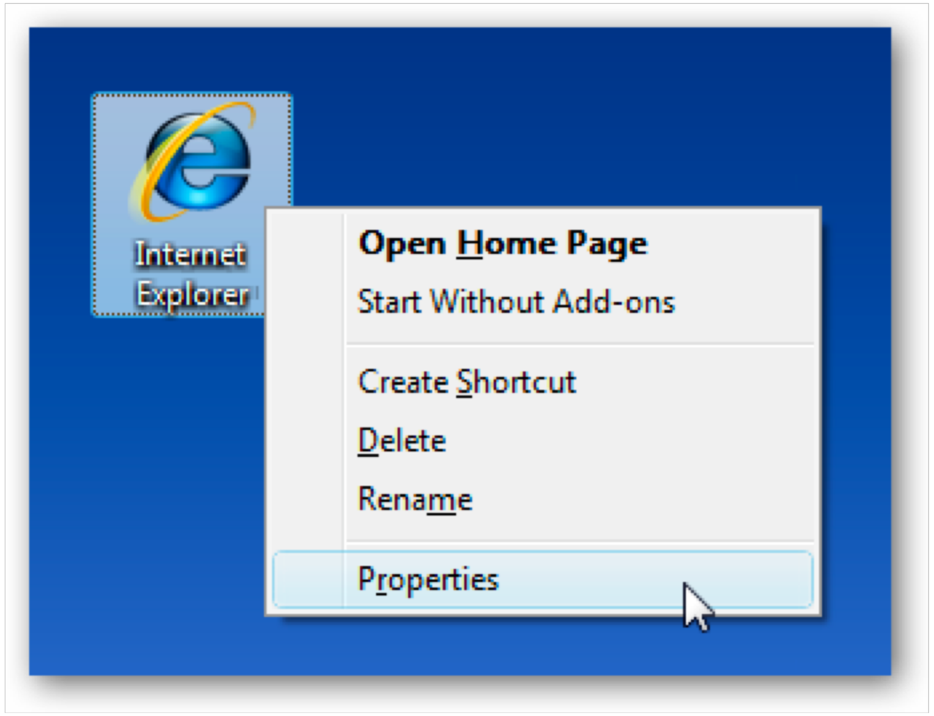


```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

C:\Windows\system32>explorer.exe

C:\Windows\system32>
```

Processes: 52 CPU Usage: 50% Physical Memory: 47%



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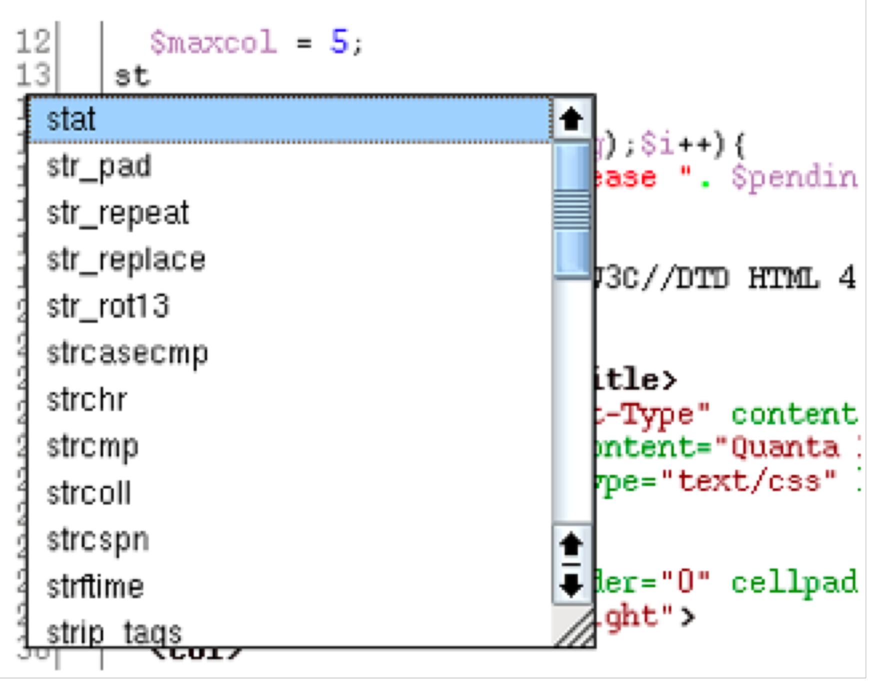
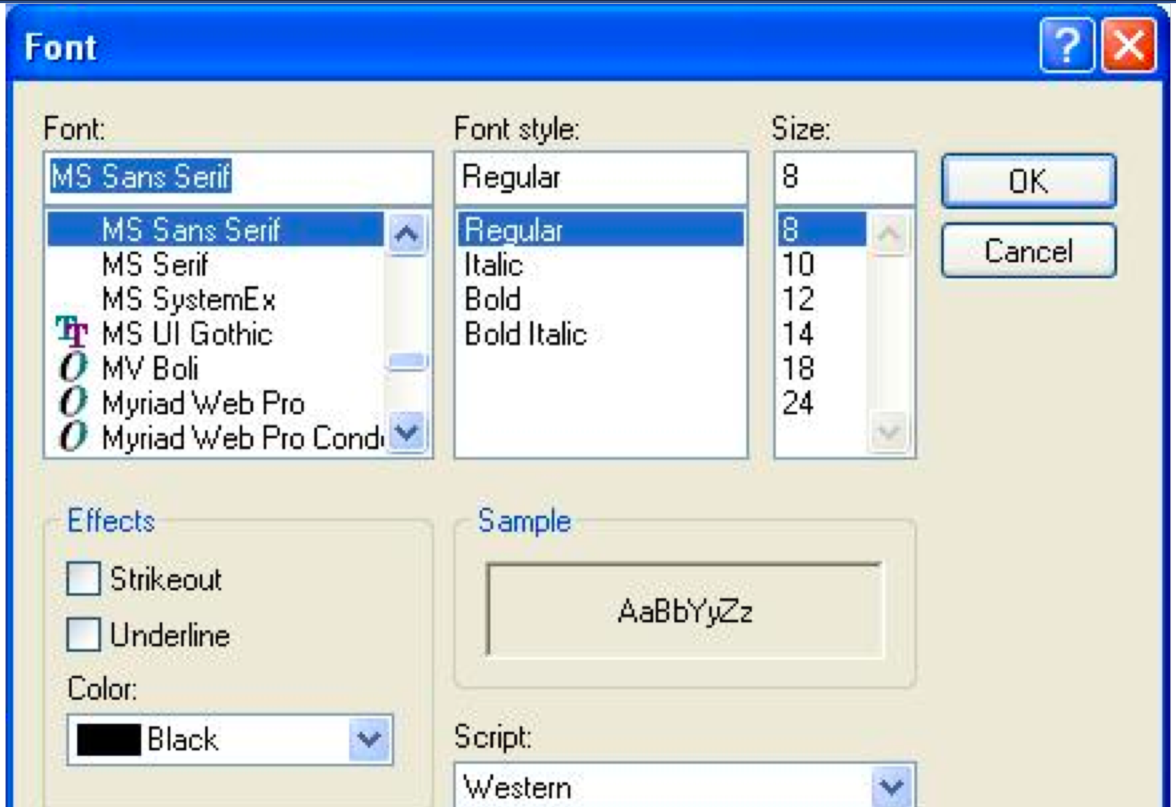


```
  $maxcol = 5;
st
```

6. Violation: Recognition rather than recall

Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another.



Font

Font: MS Sans Serif

Font style: Regular

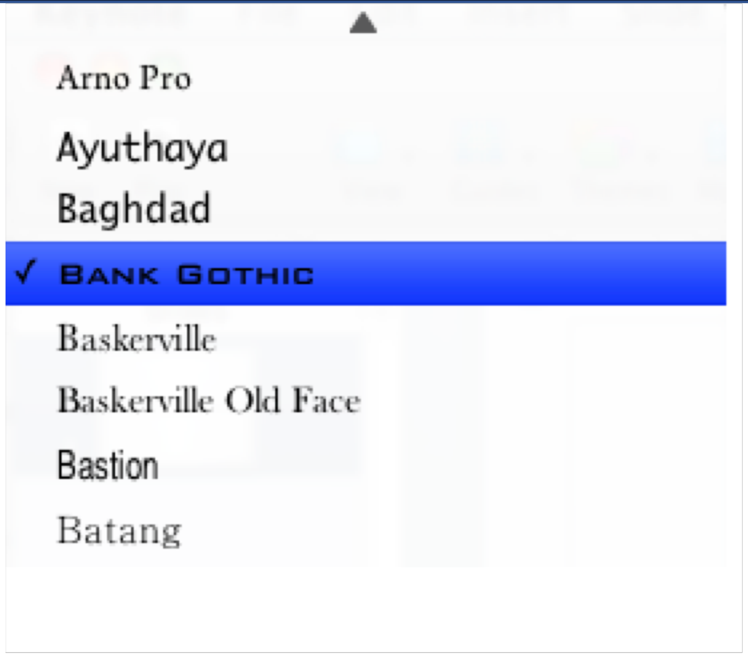
Size: 8

Sample

AaBbYyZz

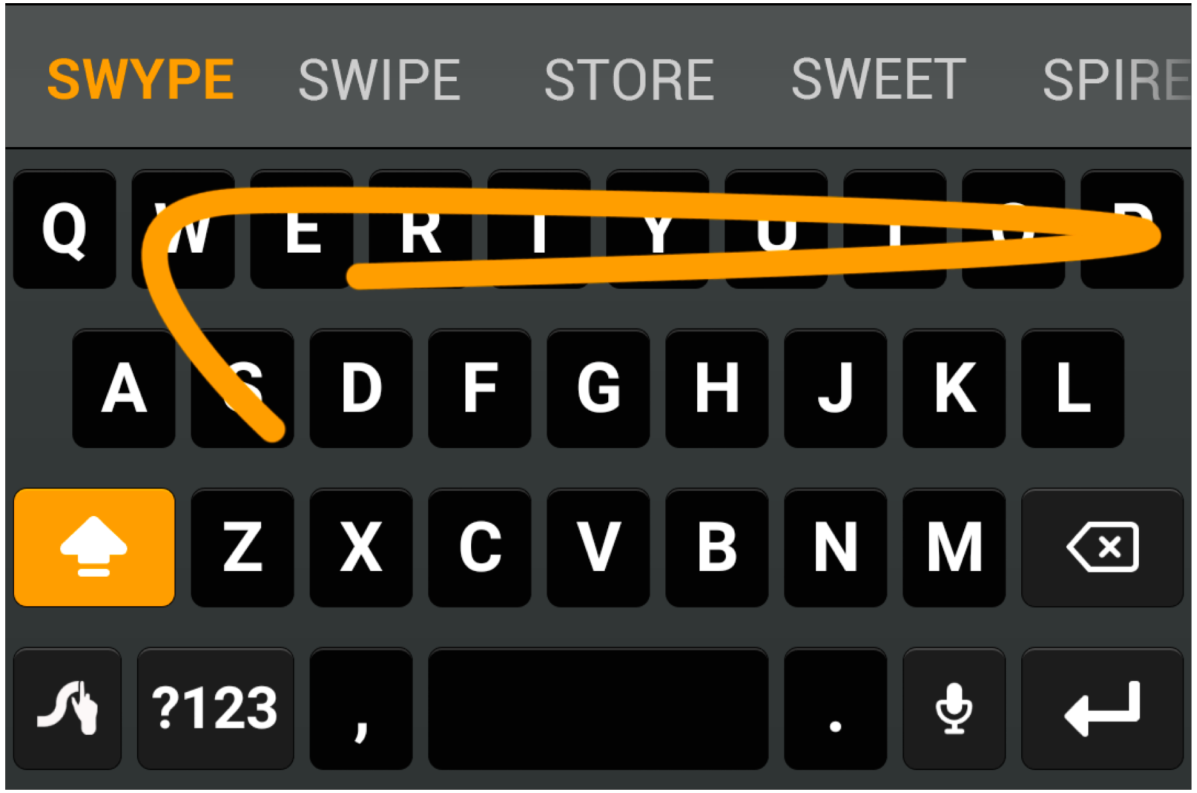
Color: Black

Script: Western



7. Flexibility and efficiency of use

Accelerators — unseen by the novice user — may often speed up the interaction for the expert. Allow users to tailor frequent actions.



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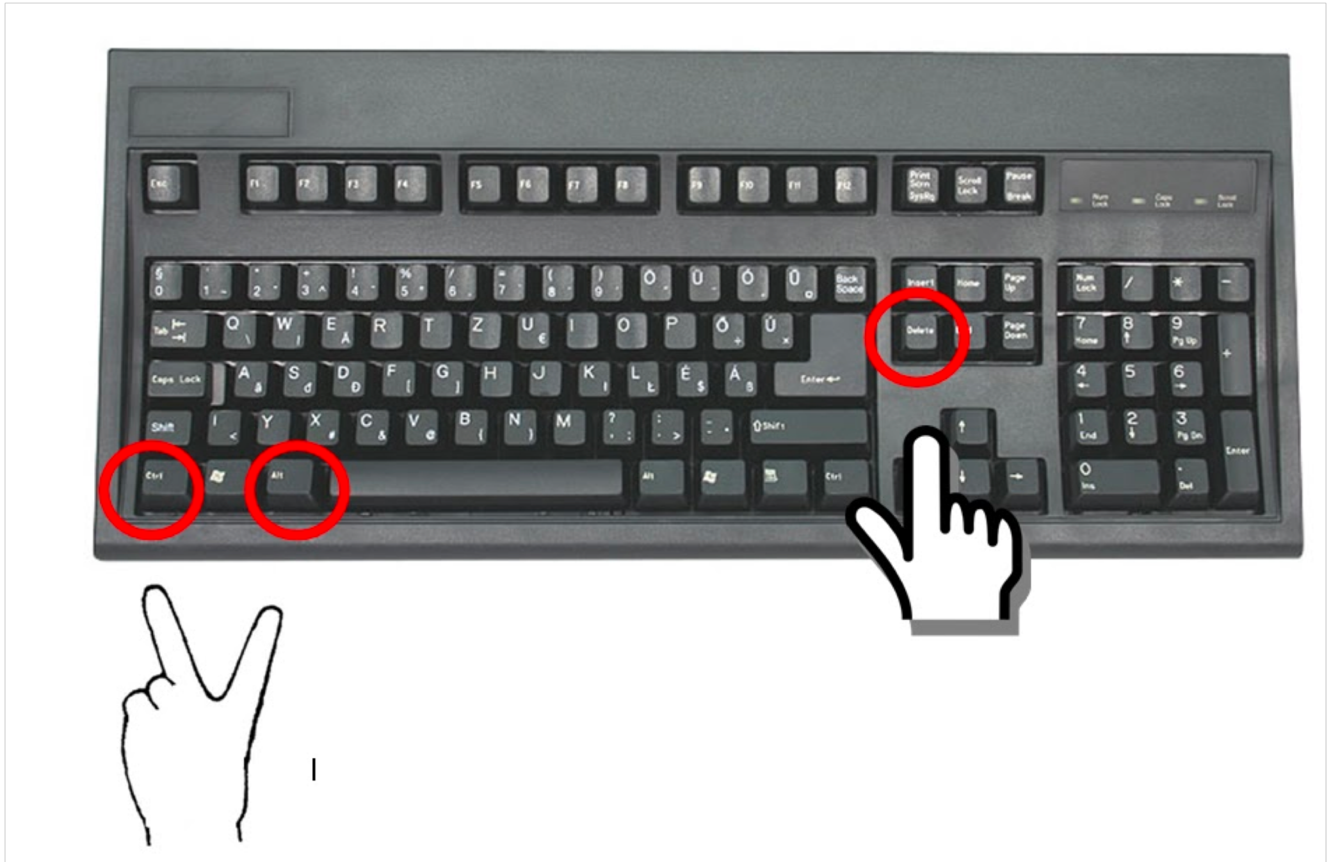
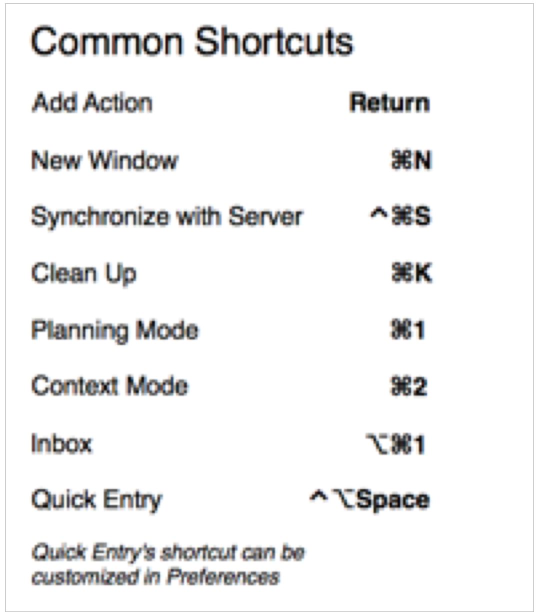




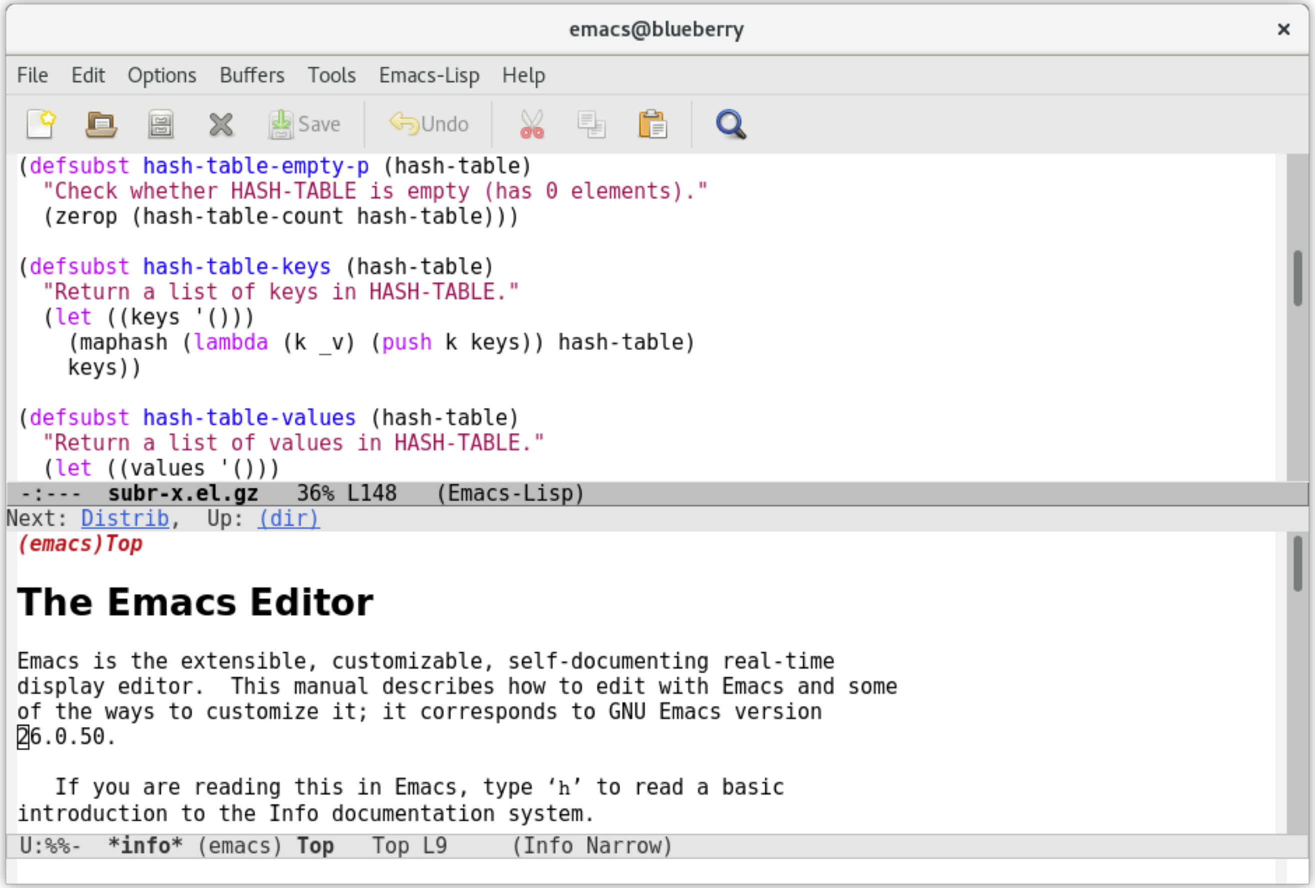
Common Shortcuts

Add Action	Return
New Window	⌘N
Synchronize with Server	^⌘S
Clean Up	⌘K
Planning Mode	⌘1
Context Mode	⌘2
Inbox	⌥⌘1
Quick Entry	^⌥Space

Quick Entry's shortcut can be customized in Preferences

7. Flexibility and efficiency of use

Accelerators — unseen by the novice user — may often speed up the interaction for the expert. Allow users to tailor frequent actions.



```
(defsubst hash-table-empty-p (hash-table)
  "Check whether HASH-TABLE is empty (has 0 elements)."
  (zerop (hash-table-count hash-table)))

(defsubst hash-table-keys (hash-table)
  "Return a list of keys in HASH-TABLE."
  (let ((keys '()))
    (maphash (lambda (k _v) (push k keys)) hash-table)
    keys))

(defsubst hash-table-values (hash-table)
  "Return a list of values in HASH-TABLE."
  (let ((values '()))
-:---  subr-x.el.gz    36% L148    (Emacs-Lisp)
Next: Distrib,  Up: (dir)
(emacs)Top
```

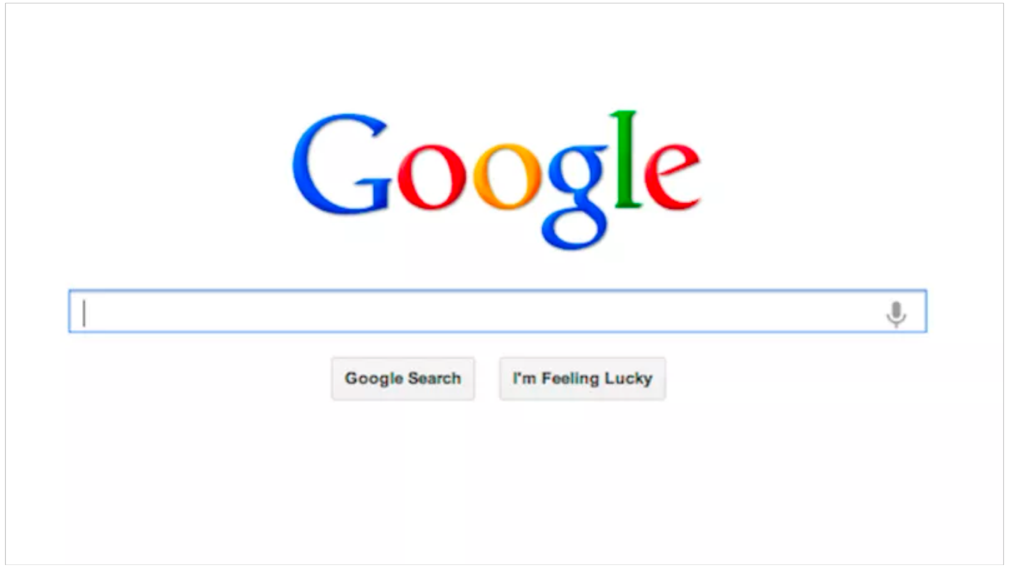
The Emacs Editor

```
Emacs is the extensible, customizable, self-documenting real-time
display editor.  This manual describes how to edit with Emacs and some
of the ways to customize it; it corresponds to GNU Emacs version
26.0.50.

   If you are reading this in Emacs, type ‘h’ to read a basic
introduction to the Info documentation system.
U:%%-  *info* (emacs) Top    Top L9     (Info Narrow)
```

8. Aesthetic and minimalist design

Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.



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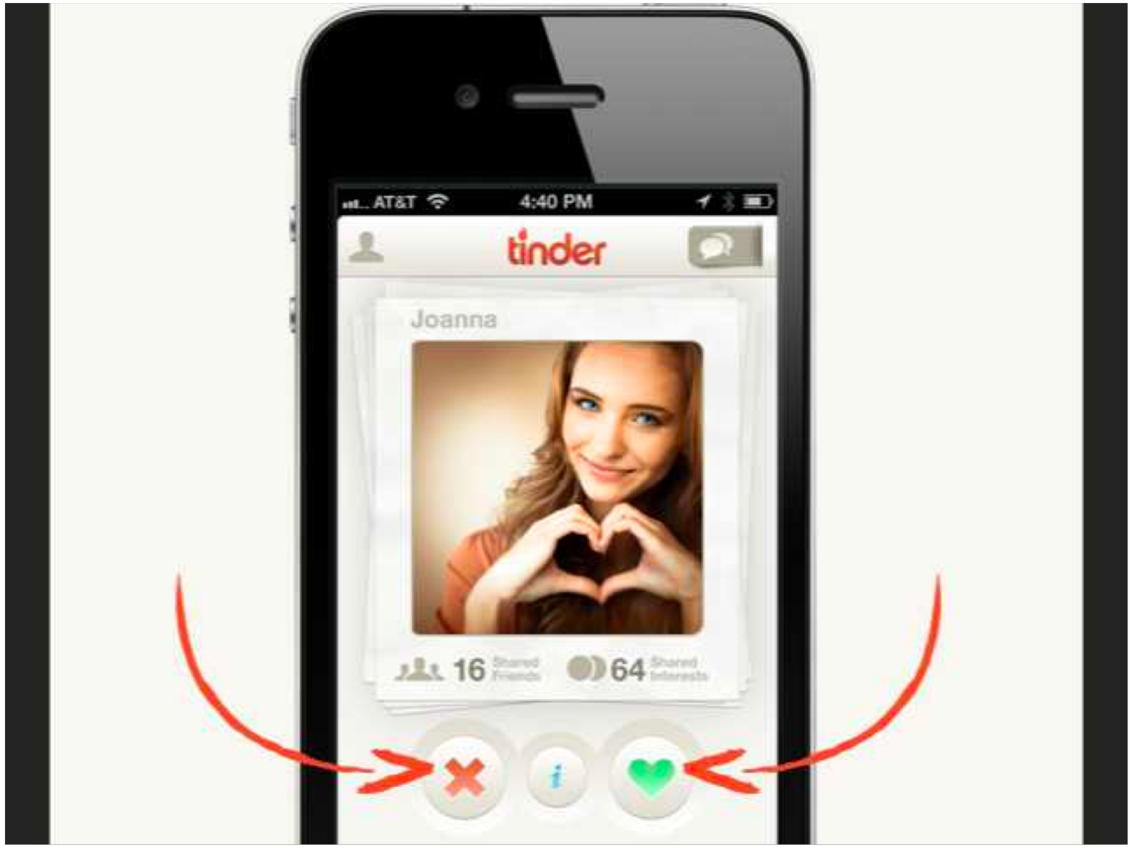
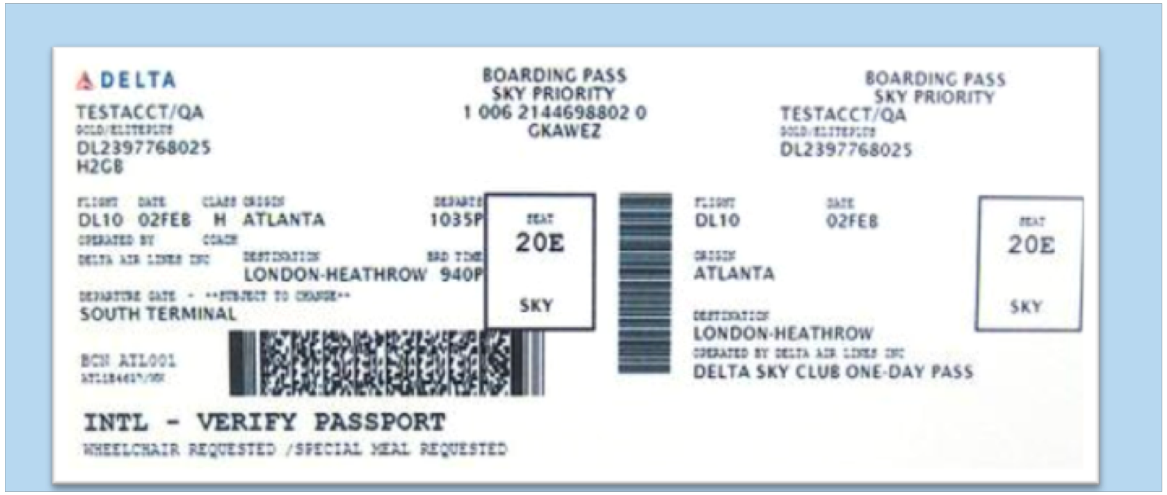


8. Violation: Aesthetic and minimalist design

Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.



DELTA

TESTACCT/QA
GOLD/ELITEPLUS
DL2397768025
H2GB

BOARDING PASS
SKY PRIORITY
1 006 2144698802 0
GKAWEZ

FLIGHT DATE CLASS ORIGIN
DL10 02FEB H ATLANTA
OPERATED BY COACH
DELTA AIR LINES INC

DEPARTS
1035P

DESTINATION
LONDON-HEATHROW

BRD TIME
940P

SEAT
20E
SKY

DEPARTURE GATE - **SUBJECT TO CHANGE**
SOUTH TERMINAL

BCN ATL001
[illegible]

INTL - VERIFY PASSPORT
WHEELCHAIR REQUESTED /SPECIAL MEAL REQUESTED

BOARDING PASS
SKY PRIORITY
TESTACCT/QA
GOLD/ELITEPLUS
DL2397768025

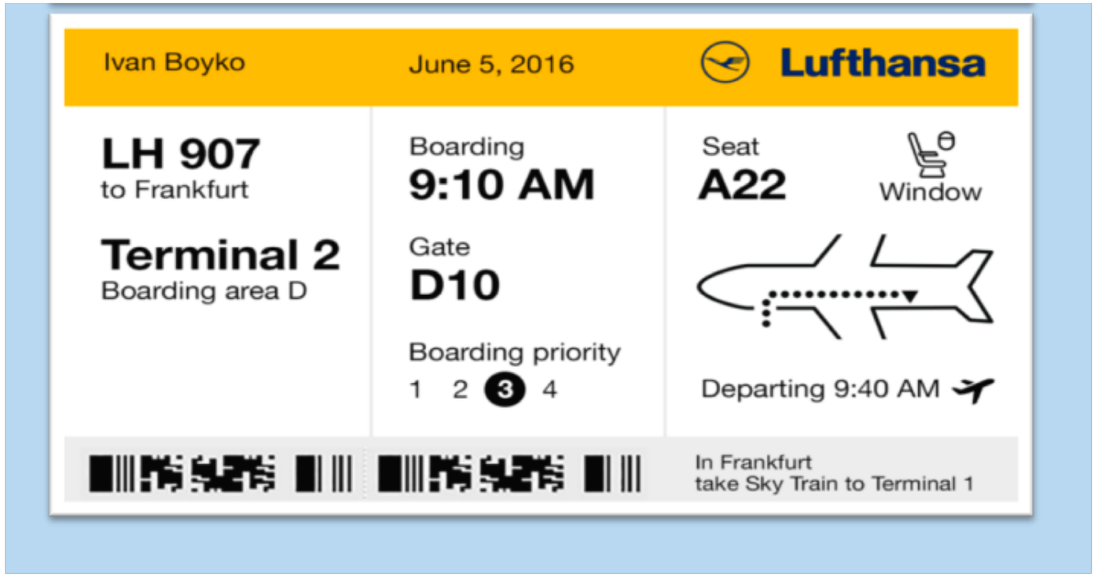
FLIGHT
DL10

DATE
02FEB

SEAT
20E
SKY

ORIGIN
ATLANTA

DESTINATION
LONDON-HEATHROW
OPERATED BY DELTA AIR LINES INC
DELTA SKY CLUB ONE-DAY PASS



Ivan Boyko

June 5, 2016

Lufthansa

LH 907
to Frankfurt

Terminal 2
Boarding area D

Boarding
9:10 AM

Gate
D10

Boarding priority
1 2 ❸ 4

Seat
A22

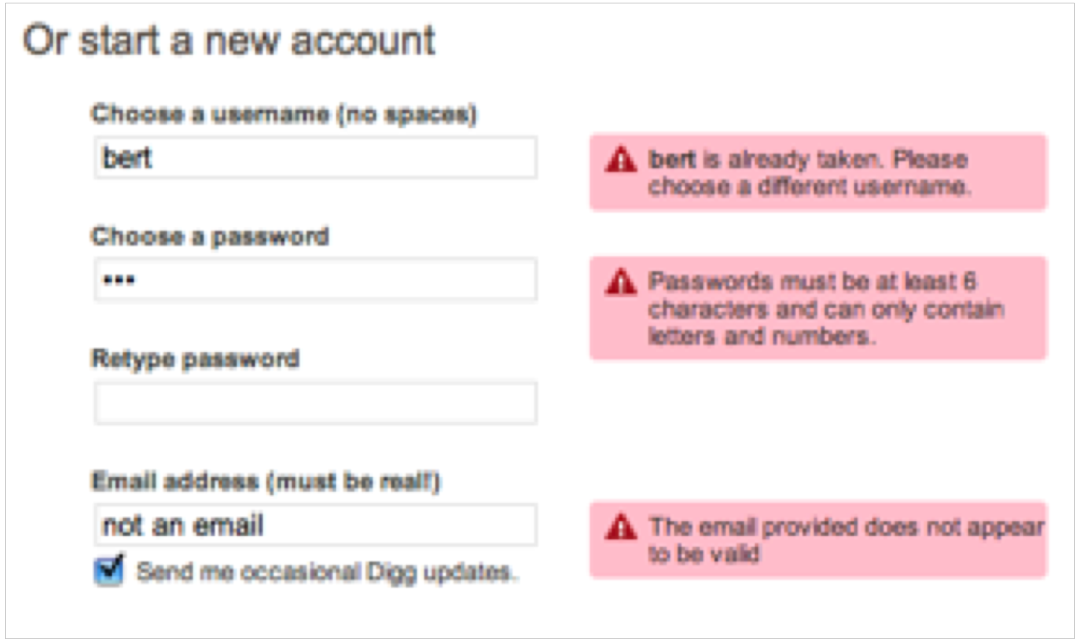
Window

Departing 9:40 AM

In Frankfurt
take Sky Train to Terminal 1

9. Help users recognize, diagnose, and recover from errors

Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.



Or start a new account

Choose a username (no spaces)

bert

⚠ bert is already taken. Please choose a different username.

Choose a password

•••

⚠ Passwords must be at least 6 characters and can only contain letters and numbers.

Retype password

Email address (must be real!)

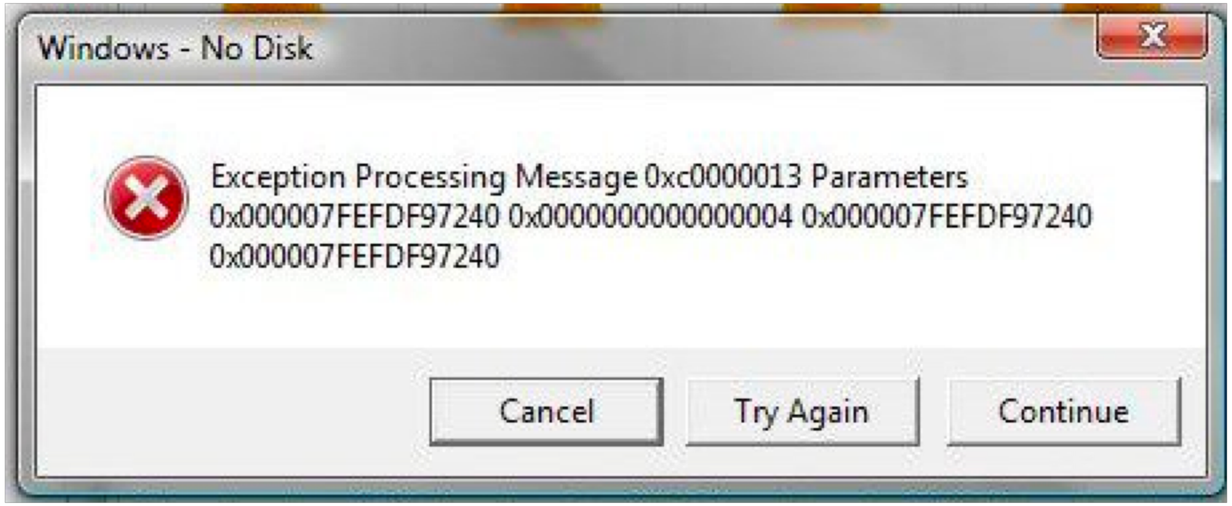
not an email

⚠ The email provided does not appear to be valid

☑ Send me occasional Digg updates.

9. Violation Help users recognize, diagnose, and recover from errors

Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.

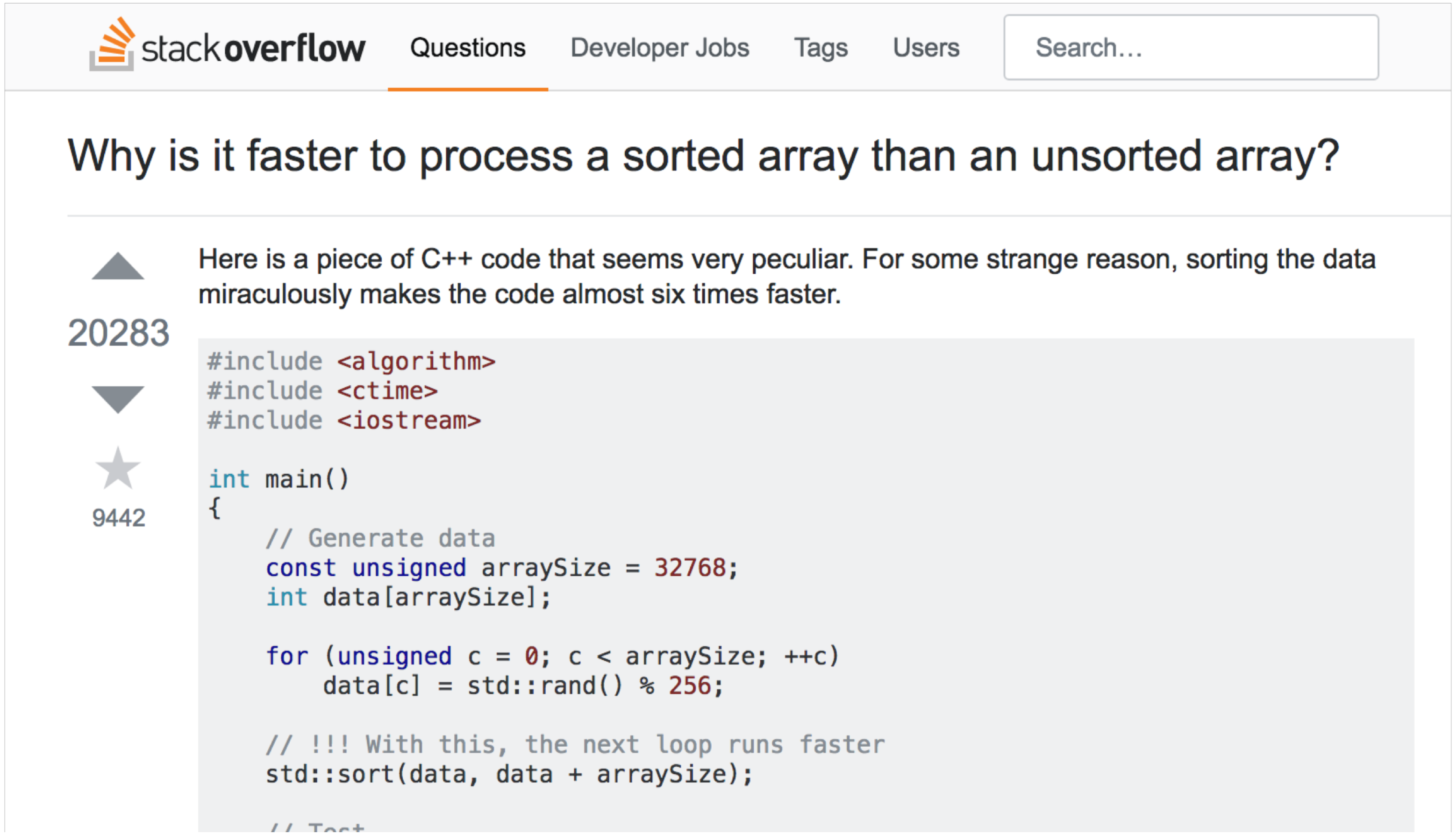


Windows - No Disk

Exception Processing Message 0xc0000013 Parameters 0x000007FEFDF97240 0x0000000000000004 0x000007FEFDF97240 0x000007FEFDF97240

10. Help and documentation

Documentation should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.



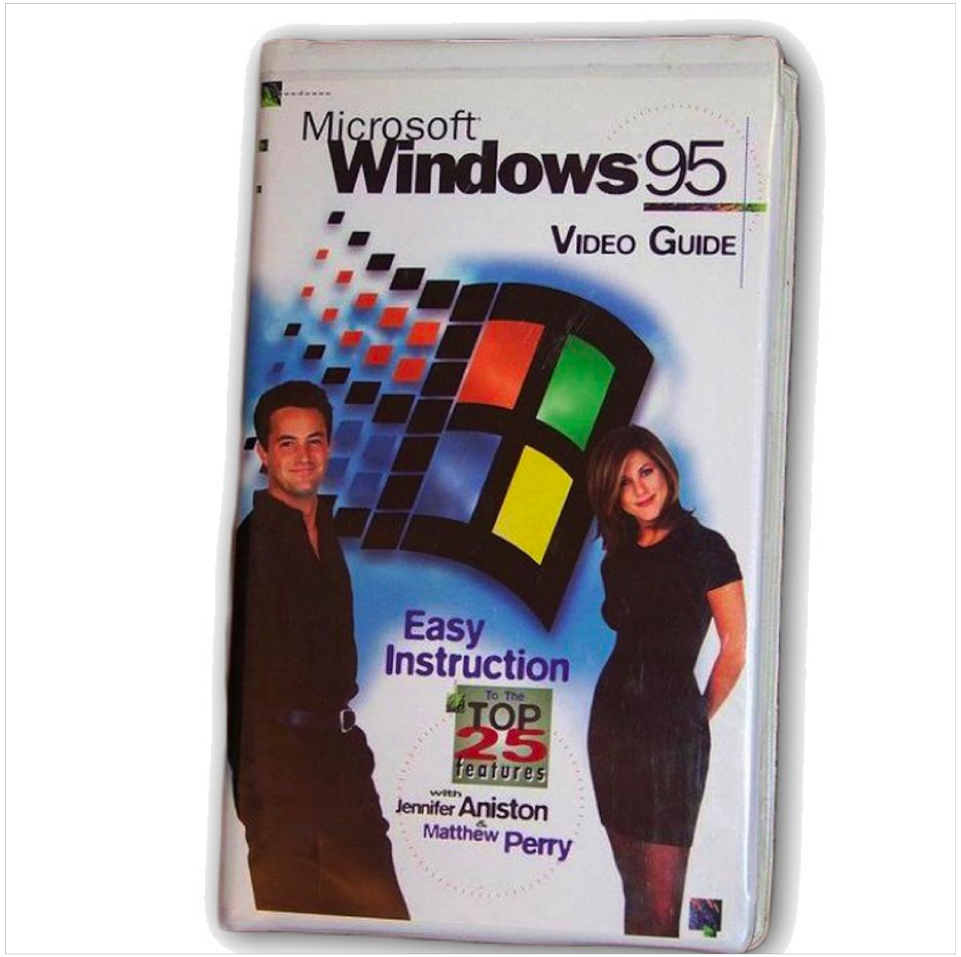
Why is it faster to process a sorted array than an unsorted array?

Here is a piece of C++ code that seems very peculiar. For some strange reason, sorting the data miraculously makes the code almost six times faster.

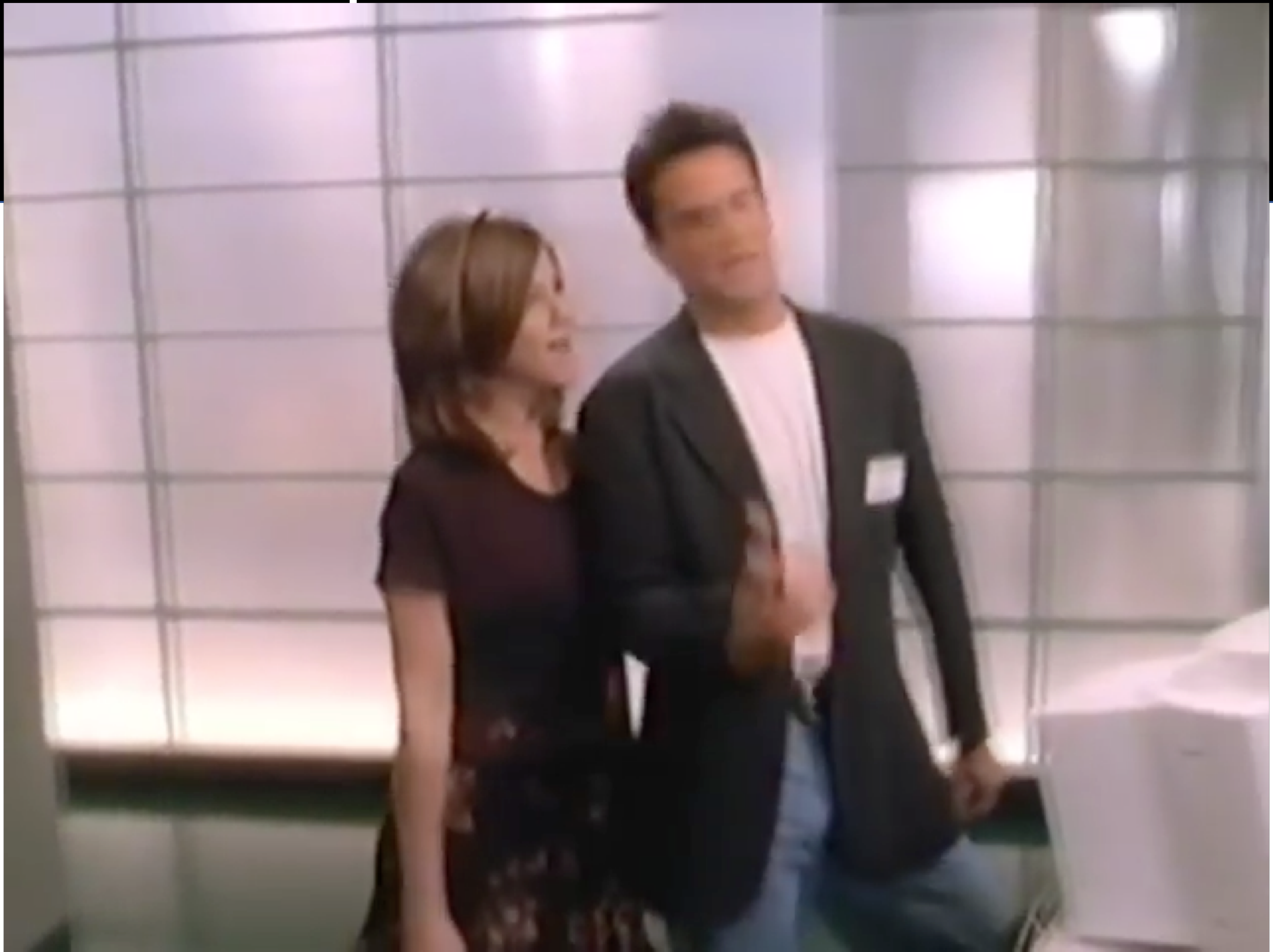
```
#include <algorithm>
#include <ctime>
#include <iostream>

int main()
{
    // Generate data
    const unsigned arraySize = 32768;
    int data[arraySize];

    for (unsigned c = 0; c < arraySize; ++c)
        data[c] = std::rand() % 256;

    // !!! With this, the next loop runs faster
    std::sort(data, data + arraySize);

    // Test
```

10. Violation: Help and documentation:

Documentation should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.



10. Violation: Help and documentation



Nielsen’s 10 Usability Heuristics

1. Visibility of system status
2. Match the real world
3. User control and freedom
4. Consistency and Standards
5. Error prevention
6. Recognition rather than recall
7. Flexibility and efficiency of use
8. Aesthetic and minimalist design
9. Recover from Errors
10. Help and documentation

QUIZ 1 of 3

1. Visibility of system status
2. Match the real world
3. User control and freedom
4. Consistency and Standards
5. Error prevention
6. Recognition rather than recall
7. Flexibility and efficiency of use
8. Aesthetic and minimalist design
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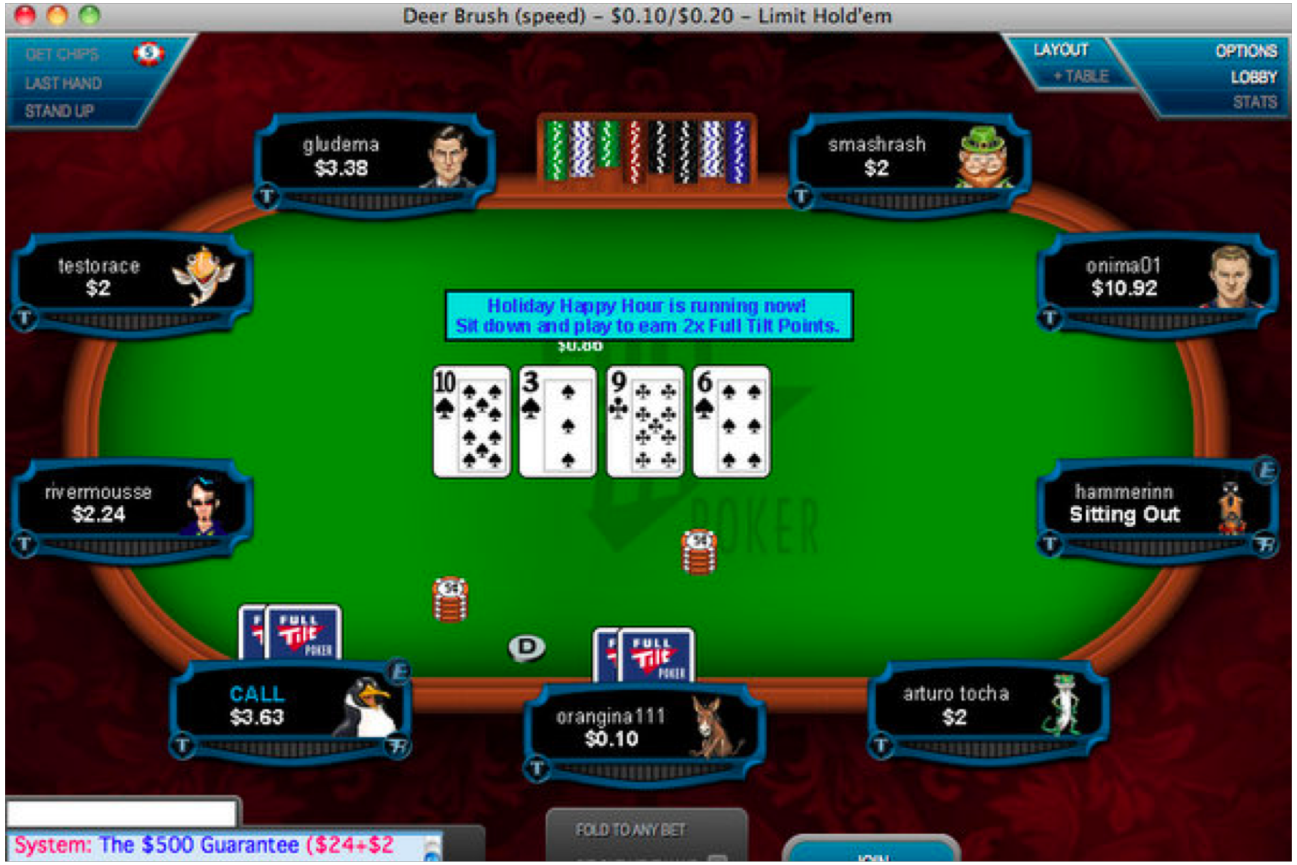
10. Help and documentation



Deer Brush (speed) – $0.10/$0.20 – Limit Hold'em

Holiday Happy Hour is running now!
Sit down and play to earn 2x Full Tilt Points.

System: The $500 Guarantee ($24+$2

QUIZ 1 of 3

1. Visibility of system status
2. **Match the real world**
3. User control and freedom
4. Consistency and Standards
5. Error prevention
6. Recognition rather than recall
7. Flexibility and efficiency of use
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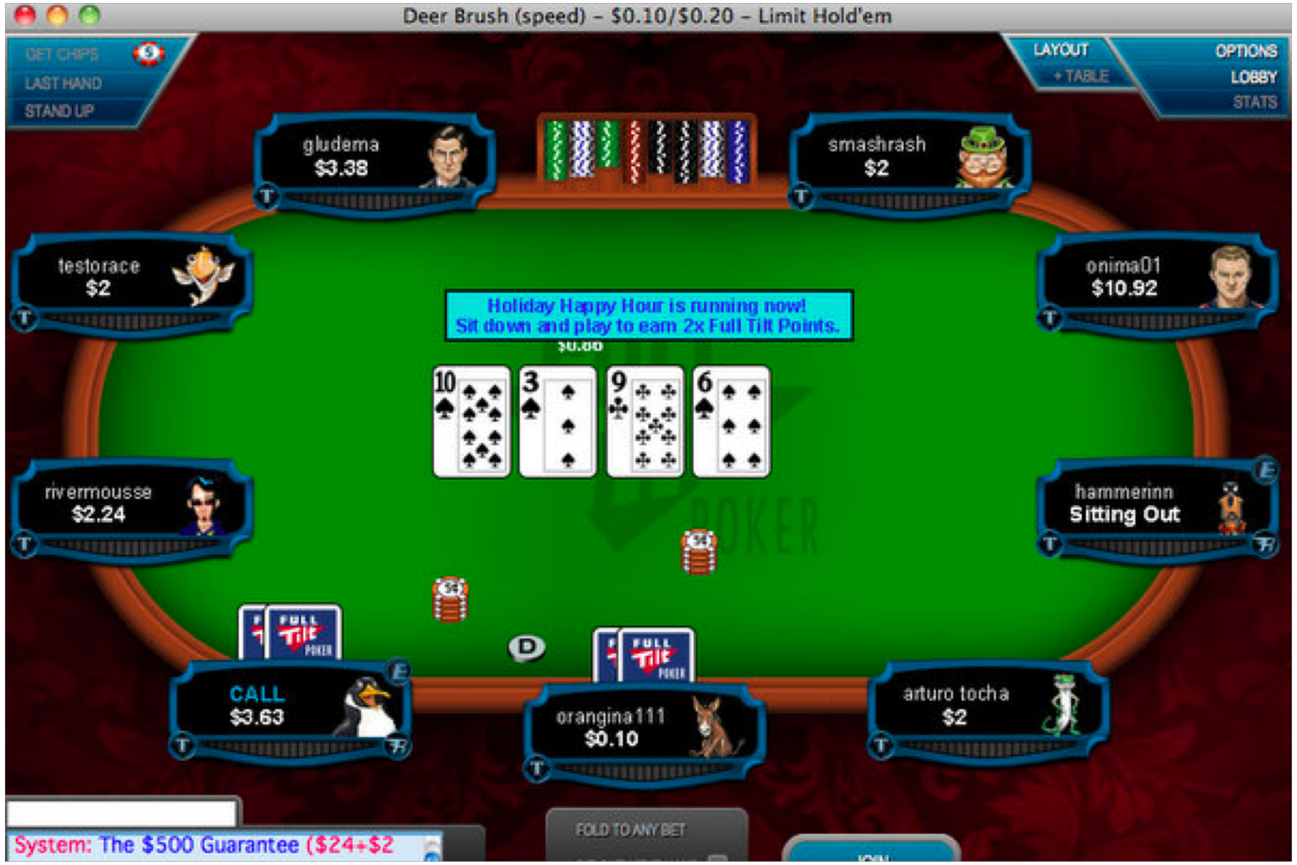
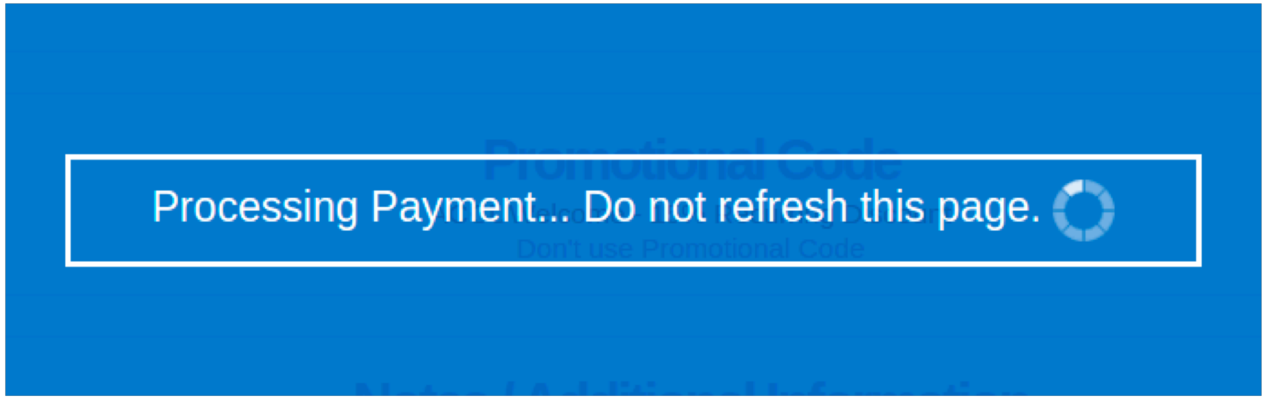


Holiday Happy Hour is running now!
Sit down and play to earn 2x Full Tilt Points.

System: The $500 Guarantee ($24+$2

QUIZ 2 of 3

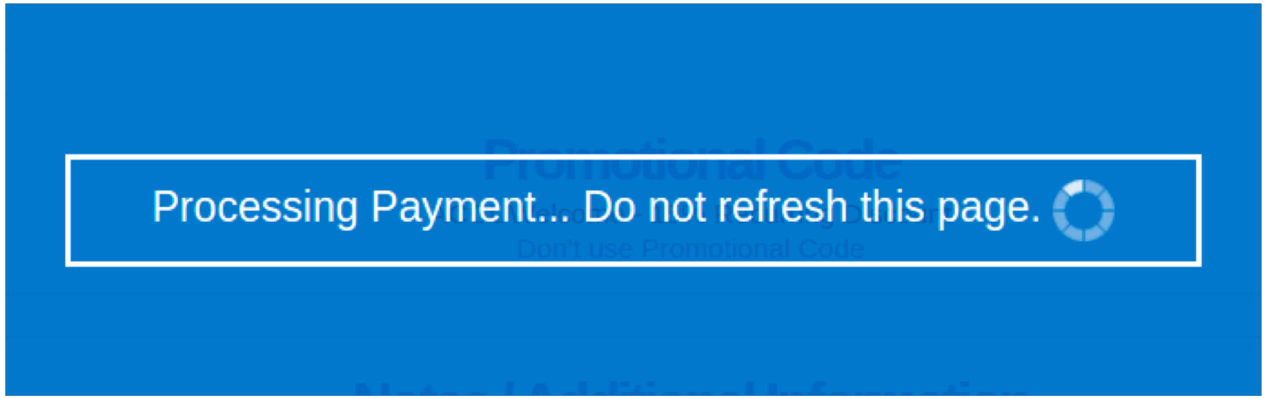
1. Visibility of system status
2. Match the real world
3. User control and freedom
4. Consistency and Standards
5. Error prevention
6. Recognition rather than recall
7. Flexibility and efficiency of use
8. Aesthetic and minimalist design
9. Recover from Errors
10. Help and documentation



Processing Payment... Do not refresh this page.

QUIZ 2 of 3

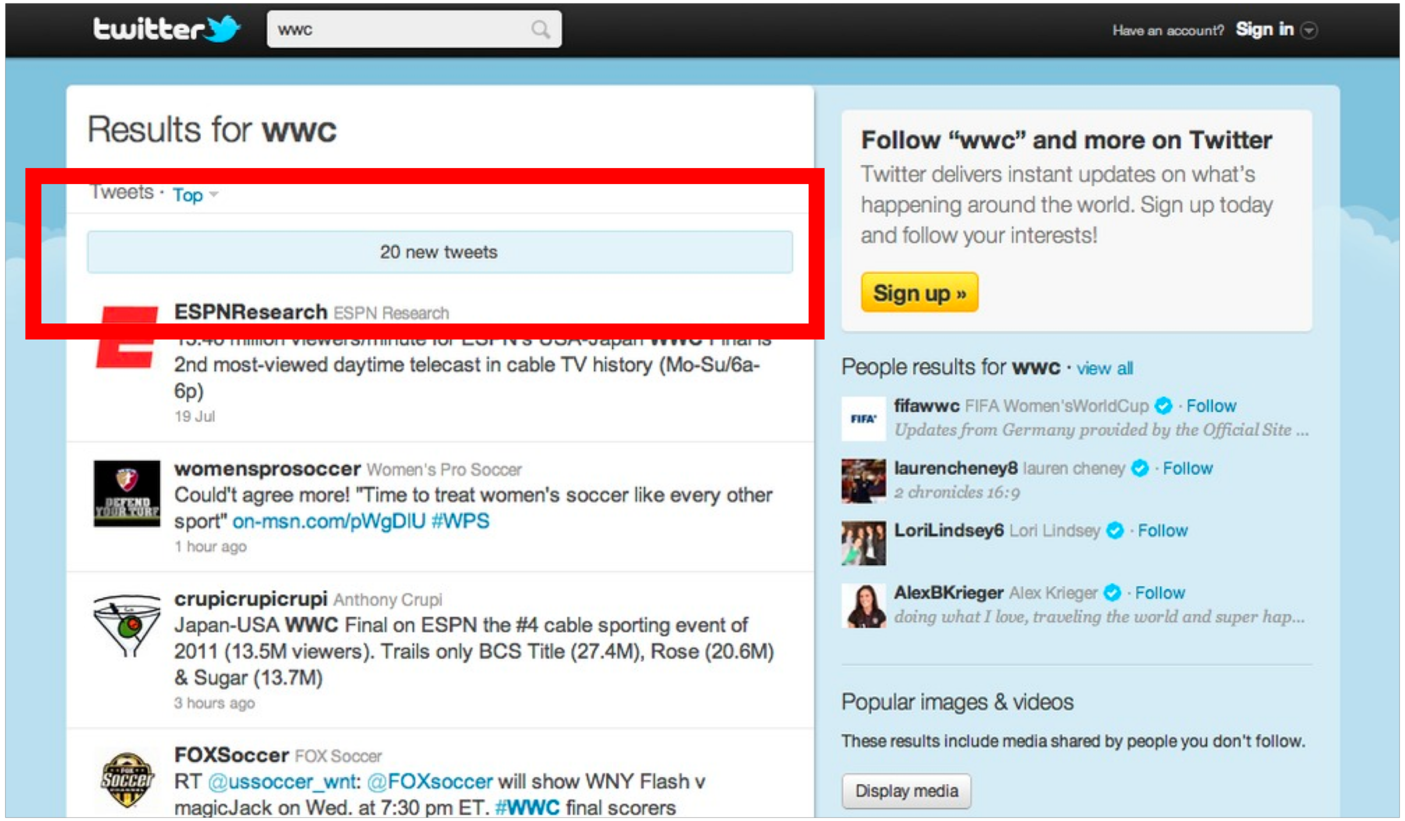
1. Visibility of system status
2. Match the real world
3. User control and freedom
4. Consistency and Standards
5. **Error prevention**
6. Recognition rather than recall
7. Flexibility and efficiency of use
8. Aesthetic and minimalist design
9. Recover from Errors
10. Help and documentation



Processing Payment... Do not refresh this page.

QUIZ 3 of 3

1. Visibility of system status
2. Match the real world
3. User control and freedom
4. Consistency and Standards
5. Error prevention
6. Recognition rather than recall
7. Flexibility and efficiency of use
8. Aesthetic and minimalist design
9. Recover from Errors
10. Help and documentation



Results for **wwc**

Tweets · Top

20 new tweets

ESPNResearch ESPN Research
13.46 million viewers/minute for ESPN's USA-Japan **WWC** Final is 2nd most-viewed daytime telecast in cable TV history (Mo-Su/6a-6p)
19 Jul

womensprosoccer Women's Pro Soccer
Could't agree more! "Time to treat women's soccer like every other sport" on-msn.com/pWgDIU #WPS
1 hour ago

crupicrupicrupi Anthony Crupi
Japan-USA **WWC** Final on ESPN the #4 cable sporting event of 2011 (13.5M viewers). Trails only BCS Title (27.4M), Rose (20.6M) & Sugar (13.7M)
3 hours ago

FOXSoccer FOX Soccer
RT @ussoccer_wnt: @FOXsoccer will show WNY Flash v magicJack on Wed. at 7:30 pm ET. #**WWC** final scorers

Follow "wwc" and more on Twitter

Twitter delivers instant updates on what's happening around the world. Sign up today and follow your interests!

Sign up »

People results for **wwc** · view all

fifawwc FIFA Women'sWorldCup · Follow
Updates from Germany provided by the Official Site ...

laurencheney8 lauren cheney · Follow
2 chronicles 16:9

LoriLindsey6 Lori Lindsey · Follow

AlexBKrieger Alex Krieger · Follow
doing what I love, traveling the world and super hap...

Popular images & videos

These results include media shared by people you don't follow.

Display media

QUIZ 3 of 3

1. **Visibility of system status**
2. Match the real world
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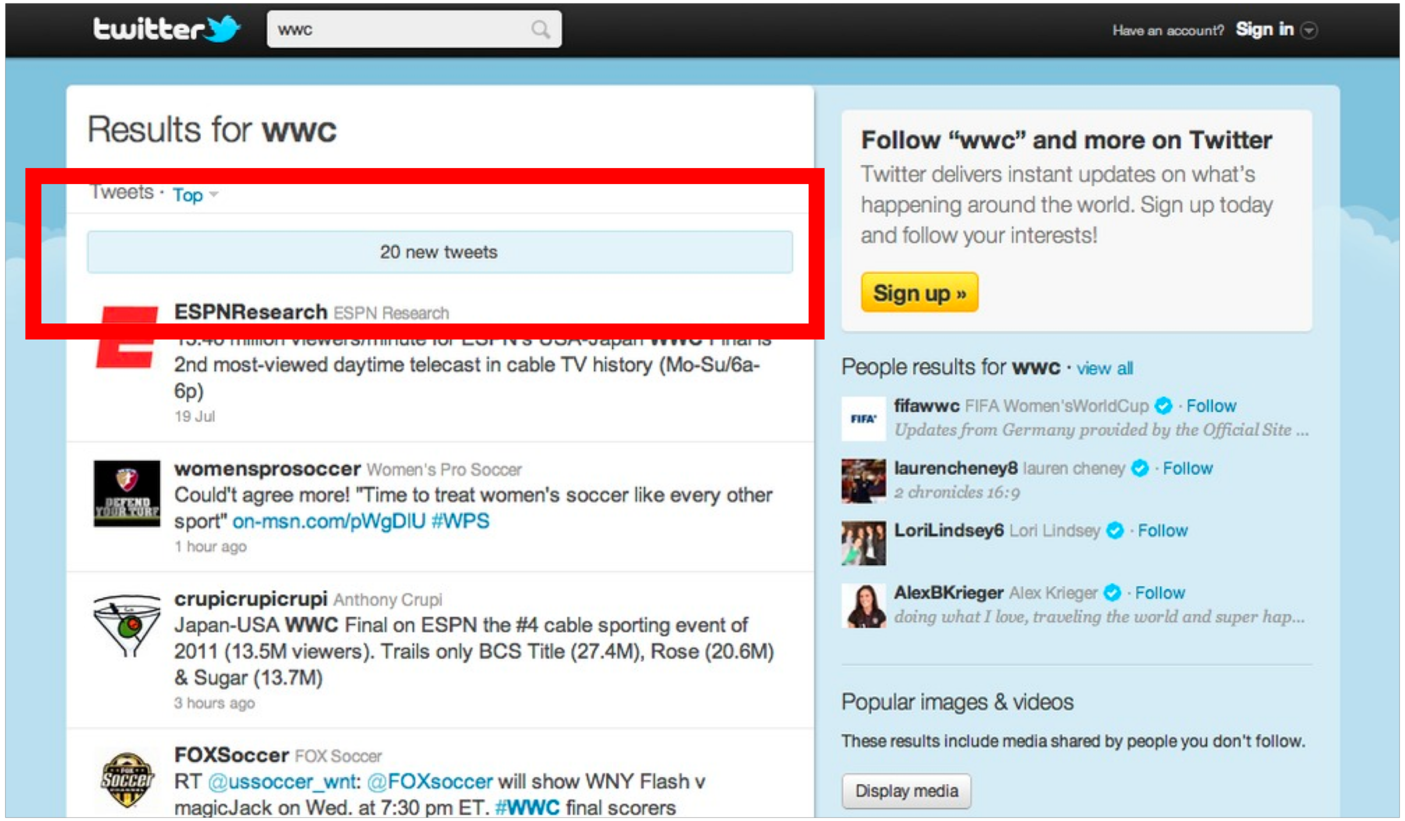

Results for **wwc**

Tweets · Top

20 new tweets

ESPNResearch ESPN Research
13.48 million viewers/minute for ESPN's USA-Japan **WWC** Final is 2nd most-viewed daytime telecast in cable TV history (Mo-Su/6a-6p)
19 Jul

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1 hour ago

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LoriLindsey6 Lori Lindsey · Follow

AlexBKrieger Alex Krieger · Follow
doing what I love, traveling the world and super hap...

Popular images & videos

These results include media shared by people you don't follow.

Display media

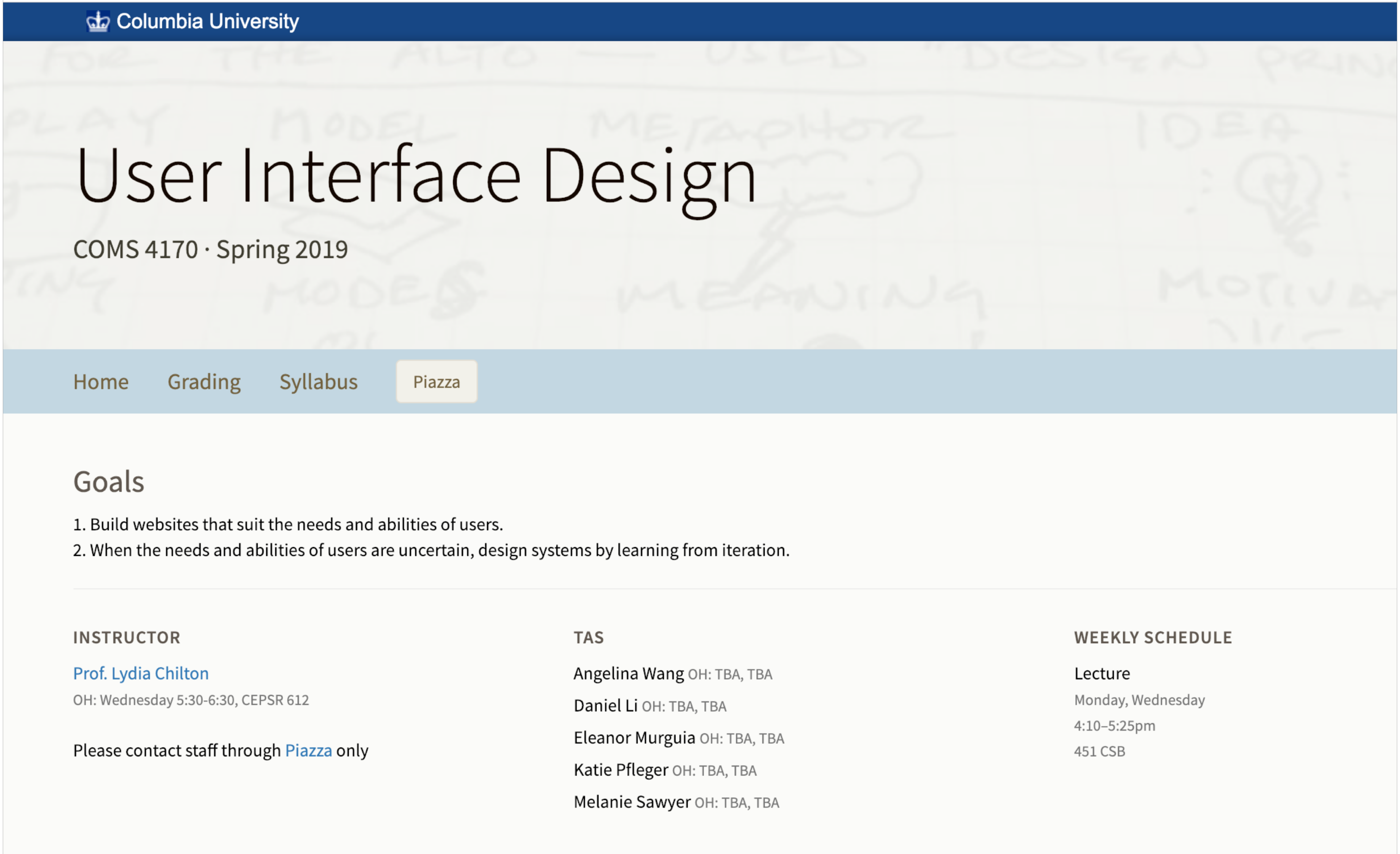
Post on Piazza right after class!

- In **reply** to the post
  - Today I Said And Learned (TISAL)
    - Said what question you answered.
      - Example: “On slide 44 about why UNIX commands don’t match the real world, I said ’creat’ doesn’t have an e at the end.”
    - Say one thing you learned or remembered.
      - Example: “I learned that airline boarding passes can be vastly improved to have more aesthetic and minimalist design. They can be redesigned to help people find the key information when and where they need it during the stressful airport experience.”

Homework 1

- Due Friday Jan 25th @ 4:00 PM.
  - Find **two** examples of web or mobile applications that **positively** exhibit one of the usability heuristics
  - Find **two** examples of web or mobile applications that **negatively** exhibit one of the usability heuristics
    - How would you fix it?
  - Questions about class policy

The homework is posted on the class website and **Piazza**
Turn in homework on **Courseworks**.
(The assignment contains specific turn-in instructions)



Columbia University

User Interface Design

COMS 4170 · Spring 2019

Home Grading Syllabus Piazza

Goals

1. Build websites that suit the needs and abilities of users.
2. When the needs and abilities of users are uncertain, design systems by learning from iteration.

INSTRUCTOR

Prof. Lydia Chilton
OH: Wednesday 5:30-6:30, CEPSR 612

Please contact staff through Piazza only

TAS

Angelina Wang OH: TBA, TBA
Daniel Li OH: TBA, TBA
Eleanor Murguia OH: TBA, TBA
Katie Pfleger OH: TBA, TBA
Melanie Sawyer OH: TBA, TBA

WEEKLY SCHEDULE

Lecture
Monday, Wednesday
4:10–5:25pm
451 CSB