

# CHAPTER 8:

## Fluid Navigation

***Designing the User Interface:  
Strategies for Effective Human-Computer Interaction***

***Sixth Edition***

**Ben Shneiderman, Catherine Plaisant,  
Maxine S. Cohen, Steven M. Jacobs, and Niklas Elmqvist**

***in collaboration with  
Nicholas Diakopoulos***

Addison Wesley  
is an imprint of



© 2017 Pearson Education, Inc., Hoboken, NJ. All rights reserved.

# Airbus A380 Takeoff, Flight, Landing

<https://www.youtube.com/watch?v=EjeyhDhoMv4>

# Fluid Navigation

## Topics

1. Introduction
2. Navigation by selection
3. Small displays
4. Content Organization
5. Audio menus
6. Form fill-in and dialog boxes

# Introduction

- **Navigation**

- Enables users to know where they are and to steer themselves to their intended destination
- Is about getting work done or having fun through a series of actions, much like sailors who steer their boat to a harbor
- Is key to:
  - successfully operating interactive applications, such as installing a mobile app, completing an on-line survey, or purchasing a train ticket (**task navigation**)
  - finding information on a website or browsing social media (**web navigation**)
  - finding the action needed in a desktop application (**command menu navigation**)

# Introduction (concluded)

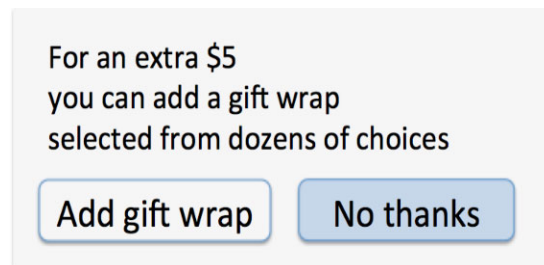
- **Navigation**

- Note that even if a designer uses slick graphical menus, elegant form fill-in, or well known gestures **there is no guarantee** that the interface will be appealing and easy to use
- Effective interfaces emerge only after careful consideration of and testing for numerous design issues, such as:
  - task-related organization
  - phrasing of items
  - sequence of items
  - graphic layout and design
  - responsive design to adapt to various sizes of devices
  - shortcuts for knowledgeable frequent users
  - online help and error correction

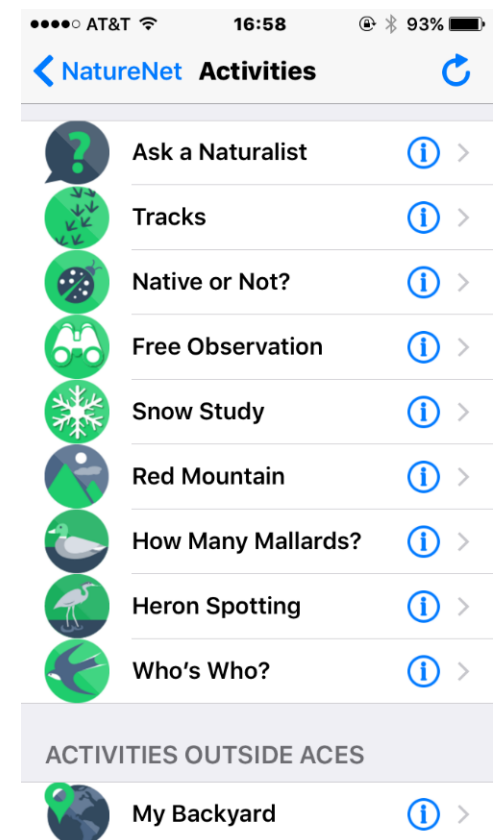
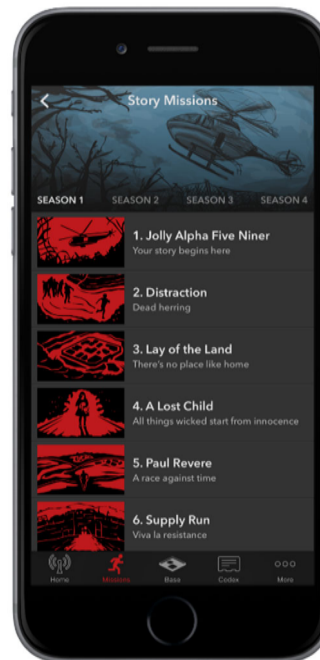
(Bailly, G., Lecolinet, E., Nigay, L., Visual menu techniques (2015) in preparation)

# Navigation By Selection

- Menu bars, pop-up menus, toolbars, palettes and ribbons
- Shortcuts and gestures for rapid interaction
- Long lists
- Linear versus simultaneous presentation



Sample menus



# Navigation By Selection (continued)

- Radio Buttons and Checkboxes

Does anyone in your household currently smoke?

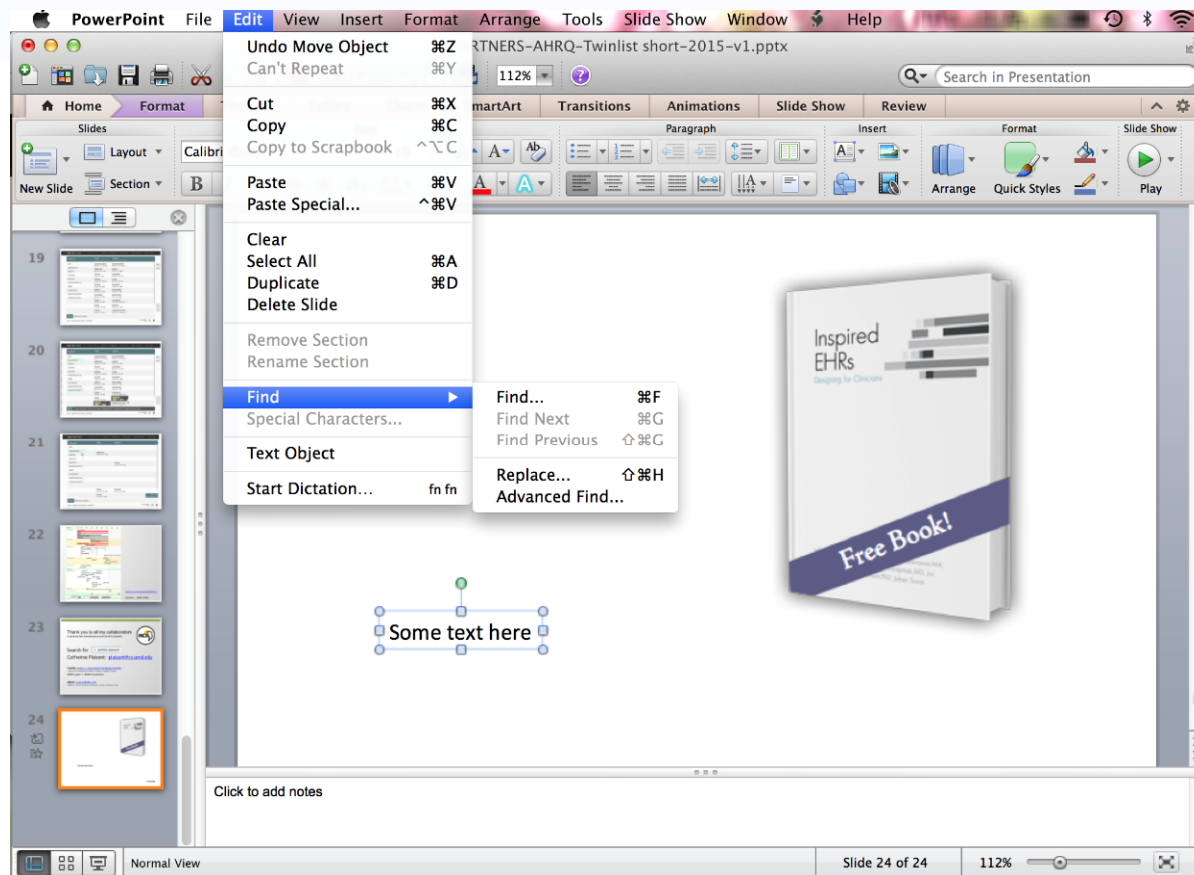
- ☐ Yes, someone does
- ☒ No, no one does
- ☐ Not sure

What treatment would you like to discuss with a nurse?

- ☐ Surgery
- ☒ Physical therapy
- ☒ Medication
- ☐ Acupuncture (not available in your area)

# Navigation By Selection (continued)

- Menu bars, pop-up menus, toolbars, palettes and ribbons

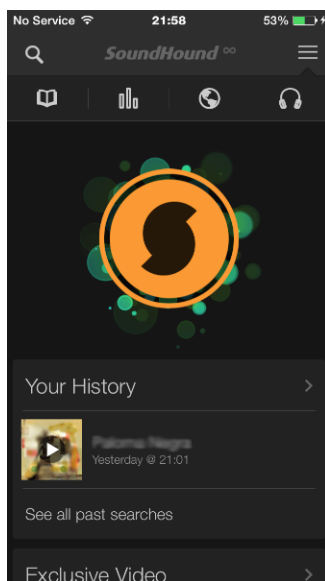


- On the top menu bar of Microsoft Powerpoint the Edit cascading *pull-down menu* (also called *pulled-right*) is open, followed by the Find menu

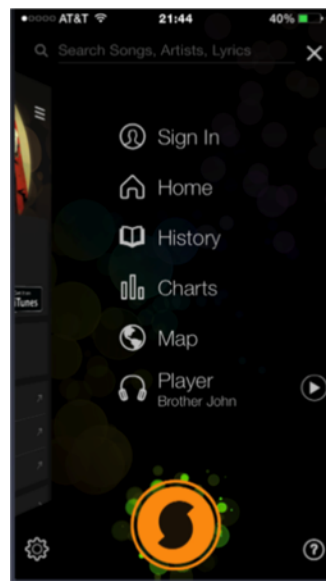


# Navigation By Selection (continued)

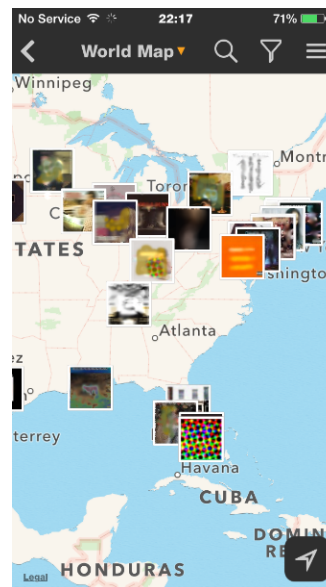
- Menu bars, pop-up menus, toolbars, palettes and ribbons



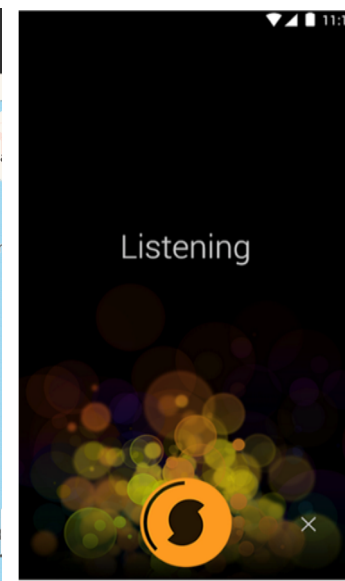
A



B



C



D

- The main menu of Soundhound has only 6 items, but it is still too much to be displayed on every page
- A main menu “hamburger” icon appears at the top right of all appropriate pages, e.g. it appears in A and C, but not in the recording screen D, where only the X close icon is visible

