Menu Design Guidelines

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SWE 432

Design and Implementation of Software for the Web

Web Interfaces

- Web interfaces are composed of:
  - Menus
  - Forms
  - GUIs

- We will look at each of these 3 user interface types individually

Use Menus When …

- **A finite list of well-defined choices**

- **Users will understand choices without help**

- **Users need to be <u>reminded</u> what they want**

Things to Consider

- **Menu system structure**

- **Number of items**

- **Sequence of items**

- **Titles**

- **Prompts**

- **Phrasing of items**

- **Shortcuts**

- **On-line help**

- **Selection**

Types of Menus

1. **Binary**

2. **Multiple-item**

3. **Extended**

4. **Pop-up**

5. **Permanent**

6. **Multiple selection**

1) Binary Menus

One of two choices can be made (Yes or No)

> **Are you a new customer? <u>Open account</u>**

- Brief
- Concise
- But not descriptive

> **You may:**
> 1.   **<u>Open a new account</u>**
> 2.   **<u>Login to an existing account</u>**

- More space
- Just as fast
- Instructions clear
- Results are clear
- Uses conversational dialogue, not stilted formalism

2) Multiple-item Menus

Only one item can be chosen

Do you want to:
- **Withdraw**
- **Deposit**
- **Check Balance**
- **Quit**

Touch your choice.

3) Extended Menus

One menu spanning two or more screens

Title
Screen 1 of 2

1. _
2. _
3. _
4. _
Press the number of your choice or N for Next screen.

Title
Screen 2 of 2

5. _
6. _
7. _
Press the number of your choice or P for Previous screen.

- Titles must match.
- Screen numbering must be consistent.
- Choice labels must be unique across screens.
- 3 screens is a lot, 4 is too many.

4) Pop-Up and Pull-Down Menus

Menus that appear for one selection, then disappear

- Text must be short and concise
- If it needs a lot of text, don't use pop-up!
- Use for "ancillary" choices

5) Permanent

Pop-up menus that remain on the screen

- **May be automatic or requested by the user**
- **Contains choices that are very common**
- **Use very little text**
- **Much like pop-up, but tasks are used frequently**

6) Multiple Selection

More than one choice can be made at a time

Requires a "GO" button

Set List Files Options	
X	Emphasize directories and executables
	Show long format
	Show "hidden" files
X	Sort by modification time
	Show group owner

Choose as many options as you wish.

List Files

Order Of Items

1. **Frequently used first (most common strategy)**
2. **Numeric**
3. **Alphabetic**
4. **Chronological (time)**
5. **Grouping of related items**

Adaptive Menus

An adaptive menu changes to adapt to the user's habits.

- **Reorders the menu choices**
- **Infrequently used items put in a "background" menu (as in MS Office 2000)**
- **Risky**
  - Can be confusing
  - Multiple users on the same computer
  - Users must have some control
  - Many users hate it
  - (Old) empirical evidence was not positive

Speeding Through Menus
(Shortcut)

- **Keyboard shortcuts**

- **Increase # of items per menu**

- **Typeahead**
  - **If no returns, it's natural**
  - **Concatenation of characters yields one operation**

- **Menu names**
  - **Each menu has a name that can be used**
  - **Menu parsing must be more complicated**
  - **Allow users to define their own names**

- **Menu Macros**
  - **User assigns a name to a choice**

Screen Design Hints (1)

- **Title -- alone, top middle or top left**
- **Escape labeled -- how to get out**
- **No irrelevant info (such as advertisements!)**
- **Upper & lower case**
- **Legibility**
- **Instructions at top**
- **How to make choices**
- **Few options (about 7)**
- **No strange codes or symbols**
- **Numbering (we measure from 0, number from 1)**

Screen Design Hints (2)

- **Titles & selections same text !**
- **Same titles in documentation**
- **Text brief, descriptive and consistent grammatical style**
- **Consistent layout**
- **Take screen size into account**
- **Offer help !!**
- **Left justify items**
- **Instructions should be consistent on each screen**
- **Error messages in the same place**
- **Menu status always in the same place**

Phrasing of Menu Choices

- **Familiarity**
- **Consistency**
- **Distinct**
- **Concise**
- **Use the keyword <u>first</u>**

Clarity vs. Social Amenities

- "Please", "do you wish", "If you want" can be eliminated to improve clarity
- Questions can be implicit, not explicit

Please select the criteria for class choice: ____

  or …

Class choice criteria: ___

Example – Wordy Version

Please enter course number or name: `_____`

If entering course, also enter major: `____`
(Enter category for level 2 reports only)

1. Add a class
2. Drop a class
3. Change section

Example – Simpler Version

CLASS REGISTRATION

1. Add
2. Drop
3. Change section

Registration options:
Class Number or Name: ☐ _ _ _ _ _
Major Code: ☐ _ _ _

Form Fill

<u>Effective when extracting information that is predefined and simple in form</u>

Advantages

- **Few instructions**
- **User is in control**

Goal: **REDUCE TYPING !!!!**

Form Fill Guidelines (1)

- Title should be descriptive

- Concise, clear instructions -- user's vocabulary

- Logical grouping of fields

- Plenty of white space

- Familiar field labels

    (from user's vocabulary, not developer's)

- Consistent terminology

- Consistent abbreviations and abbreviation strategy

- Error correction for characters and fields

    (Only make me change what I goofed up!)

Form Fill Guidelines (2)

- <u>Polite, clear</u> for unacceptable values
- Mark optional fields clearly
- Don't enter same data twice
- Use sensible defaults when appropriate
- How do I commit?
- <u>MINIMIZE TYPING</u>
- Minimize keyboard/mouse moving

Form Fill -- Columns

- Left justify alphabetic
- Right justify numbers on display
- Don't enter leftmost zeros!
- Line up decimals

Design for Common Data

Telephone (_____) ____-_____

Social Security: _____-____-_____

Times: ___:___ P M

Dates: MM / DD / YY

Money: $ _____. 00

Address: Street _____

                 Box or number _____

                 State _____

                 Zip _____

Name: First _____

           Middle Initial: ___

           Last: _____

Allow for all sorts

Some people use middle name

Better Example

Telephone (_____) _____ - _____

Social Security: _____ - _____ - _____

Times: _____ : _____ P M

Dates: MM / DD / YY

Money: $ _____ . 00

Address: Address 1 _____

Address 2 _____ ← More flexibility

State _____

Zip _____

Name: First _____

Middle: _____ ← Allow middle name

Last: _____