

GUI Bloopers

Graphic Design, Layout, and Web
Page/Style Design

Graphic Design and Layout Bloopers

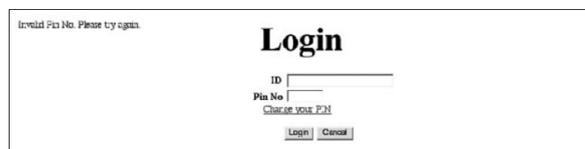
- Once you have GUI controls appropriate for your software you have to decide on:
 - Layout
 - Colors
 - Fonts
- The following bloopers diminish software's perceived quality – it only takes a few to look amateurish and untrustworthy
- Poor graphic design and layout can also decrease user's ability and motivation to absorb the software's content

Blooper 32 : Easily missed information

- Software developers often assume that if information is displayed users will see it. Not so!
- Common flaw: not focusing user's attention
 - People scan for information, left to right, top to bottom
 - Should design for how human perception works
 - Examples users can miss:
 - Status or mode indicators
 - Prompts for input
 - Results
 - Error or status messages
 - Controls

Blooper 32 Examples

- Information too small or not where the user is looking



Client Web application: error message is easy to miss. See it?



Mac login: error message is easy to miss, even though it is displayed in orange.

Avoiding Blooper 32

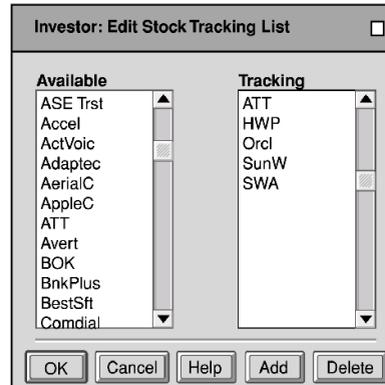
- Construct a visual hierarchy
 - Organize information displays in hierarchical chunks; users ignore irrelevant chunks and find what they want much faster
- Make important information bigger
- Put important information where the user is looking
 - Center of field, not periphery
- Use color to highlight

Avoiding Blooper 32

- If necessary, use heavy artillery
 - Dialog boxes and pop-ups
 - Impossible to ignore, but it better be important
 - Sound
 - Simple beeps usually sufficient
 - Vibration and animation
 - Peripheral vision for stationary objects is poor, but is very good at noticing movement or changes
 - Distracting if too much; have been abused by web advertisers
 - Make sure animation stops quickly and can be stopped

Blooper 33 : Mixing dialog box control buttons with content control buttons

- This happens when you add new buttons to the standard “OK”, “Apply”, “Close”, “Cancel” buttons
- Everything OK here?



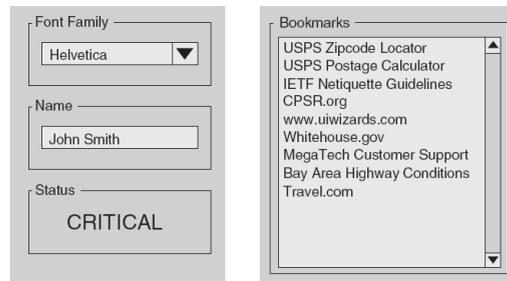
Align Buttons To Controls

- It can be hard to see the connection between the new buttons and data
- Make functions clear by separating content control buttons from window control buttons



Blooper 34 : Misusing Group Boxes

- Group boxes put a visible border around related controls and have a slot for a label
- Serve no purpose around one setting; in this case a simple label is better.



Blooper 35: Radio Buttons too far apart

- Related radio buttons should be grouped closely together

Display: Summary Details

Cheese Mozzarella Jack Swiss
 Meat: Sausage Ham Pepperoni
 Spiciness: Mild Medium Hot
 Crust: Whole Wheat White Sourdough

Improved Spacing

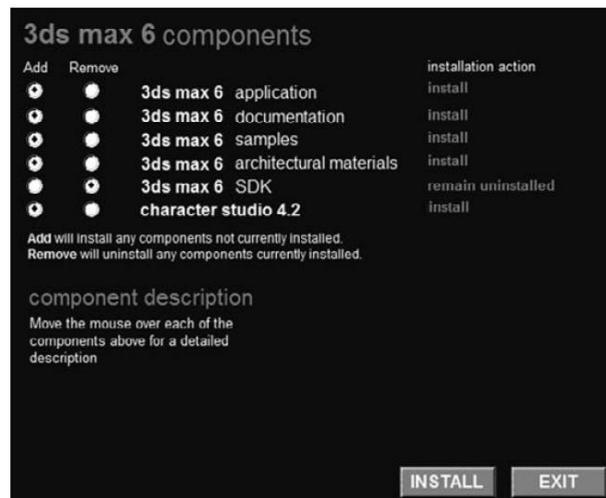
Cheese: Mozzarella Jack Swiss

Meat: Sausage Ham Pepperoni

Spiciness: Mild Medium Hot

Crust: Whole Wheat White Sourdough

Blooper 35 Examples



Discreet installer wizard: radio buttons appear grouped in columns rather than in the intended rows.

Blooper 36 : Labels too far from data fields

- Sometimes GUI's are developed where the label is placed too far from the control it describes
 - Common in automatic layouts where size is dictated by the largest field or screen width

A registration form with labels on the left and input fields on the right. The labels are: "Your name:", "E-mail address:", "Zipcode (if applicable):", "How you heard of us:", "Username:", "Password:", "Re-type your password:", "Password hint (this will be sent to you if you forget your password):", and "Would you like to receive the quarterly IOBABooks.com newsletter?". The input fields are: a text box for name, a text box for email, a text box for zip code, a dropdown menu for "How you heard of us", a text box for username, a text box for password, a text box for re-type password, a text box for password hint, and a checkbox for the newsletter. A "Create Account!" button is at the bottom right.

Blooper 36 Example

A CA.gov unemployment insurance form with labels on the left and radio buttons on the right. The labels are: "1. Social Security Number (SSN) or EDD Client Number (ECN) [Help](#)", "1a. Confirm the last 4 digits of your SSN", "1b. Did the Social Security Administration issue this SSN to you? [Help](#)", "2. Date of Birth (mm/dd/yyyy)", "3. Gender", "4. Claimant Name.", "4a. First Name", "4b. Middle Initial", "4c. Last Name", "5. Is this the name that appears on your social security card?", "If No, please provide the name that appears on your social security card.", "5a. First Name", "5b. Middle Initial", "5c. Last Name", "6. If you have used any other Social Security Numbers, please list them", "6a.", "6b.", "7. If you have used any other names, please list them [Help](#)", "7a.", "7b.", "7c.", and "8. Do you have a state-issued Driver's License or ID card?". The radio buttons are: "Yes No" for 1b, "Female Male" for 3, "Yes No" for 5, and "Yes No" for 8.

CA.gov unemployment insurance form: "Yes"/"No" radio buttons are too far from their labels.

Blooper 36 Example

- Variation: labels closer to other settings than their own



A screenshot of a form with three input fields. The first field is labeled 'City'. The second field is labeled 'State'. The third field is labeled 'ZIP' and has a 'select' button next to it. The labels are positioned closer to the previous data field than to their own.

LLBean.com: State and ZIP labels closer to previous data field than to their own.



A screenshot of a form with three input fields. The first field is labeled 'City'. The second field is labeled 'State'. The third field is labeled 'ZIP' and has a 'select' button next to it. The labels are positioned closer to their own data fields than to the previous one.

LLBean.com: hypothetical label components inverted to show their full width.

Avoiding Blooper 36

- Don't attach labels and data fields to opposite edges of a form or control panel
- Don't allow a few long labels to dictate the alignment of the entire form
- Labels should be closer to their own field than to other fields
- Put labels above fields

Avoiding Blooper 36

The screenshot shows a registration form with the following fields and labels:

- Title* (dropdown menu)
- First name* (text input)
- Middle initial (text input)
- Last name* (text input)
- Address* (radio buttons for Home and Business)
- Street address* (two stacked text inputs)
- City* (text input)
- State/prov* (text input)
- Postal code* (text input)
- Country* (dropdown menu showing United States)
- Phone* (radio buttons for Home and Business)
- Country code* (text input showing 001)
- Telephone* (text input with parentheses and hyphen)
- Ext. (text input)
- Birthdate (optional) (Month, Day, and Year dropdown menus)

Labels are consistently placed above the corresponding input fields.

United.com: labels above fields.

Blooper 37 : Inconsistent Label Alignment

- Labels should be consistent in where they are placed throughout the application
- Extreme case:

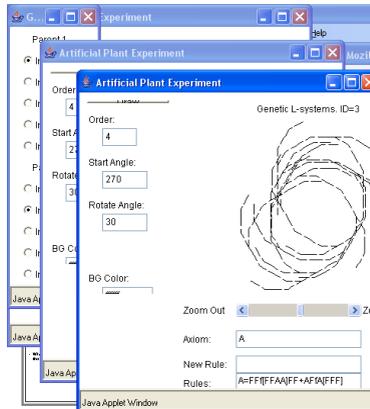
The screenshot shows two fields with labels:

- The label "Repeat" is aligned to the left of the input field containing "weekly".
- The label "Until" is aligned to the left of the input field containing "2/4/2004".

The labels are not vertically aligned, illustrating inconsistent label alignment.

Blooper 38: Poor Window Location

- Where should an application's windows first appear?
- Heuristics:
 - On-screen
 - Staggered
 - No occlusion



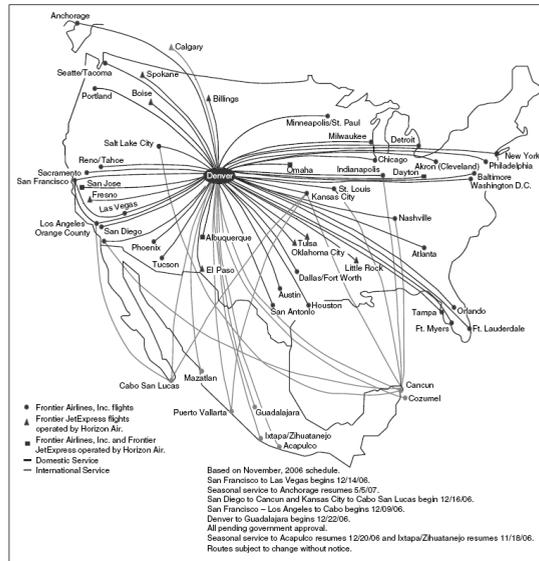
Blooper 39: Tiny fonts

- Lots of people with impaired vision can't read small fonts
 - Includes old folks over 45



MinneapolisFed.org: tiny, nonadjustable fonts in navigation bar.

Blooper 39 Example



FrontierAirlines.com: tiny, nonadjustable fonts.

Blooper Bonus: Un-Natural Order

- Avoid the “random” layout

Create Book Order □

Auto-Submit Help

Retailer: Publisher: ▼

Cover: Hard Soft Target Delivery Date:

Quantity: ▼ Expected Discount: ▼

ISBN#: Title:

Notes:

Author: Employee:

Save Order Cancel

Add proper tab stops, but also reorganize layout

Website Interface Design Tips

- Build Navigational aids.
 - Navigation bars, frames
 - Critical for giving user a sense of where they are
 - Must provide context, e.g. bar with page headers
 - User shouldn't have to go "back" to figure this out
- Avoid dead-end pages
- Keep download time short
 - Frustration after 10 seconds
- Consistency!
 - E.g., keep "home" button in the same place, don't change link colors
 - Simplicity often appreciated
- Offer feedback
- Design for the disabled
 - ALT tags
 - E.g., modem user might disable graphics
 - Use elements as designed
 - E.g. don't use blank GIF as a spacer

Top Ten Mistakes

- Jakob Nielsen's top design mistakes
 1. Using Frames
 2. Gratuitous use of bleeding-edge technology
 3. Scrolling text, marquees, and constantly running animations
 4. Complex URLs
 5. Orphan pages
 6. Long, scrolling pages
 7. Lack of navigation support
 8. Non-standard link colors
 9. Outdated information
 10. Overly long download times

GUI Bloopers

Interaction Bloopers

Interaction Bloopers

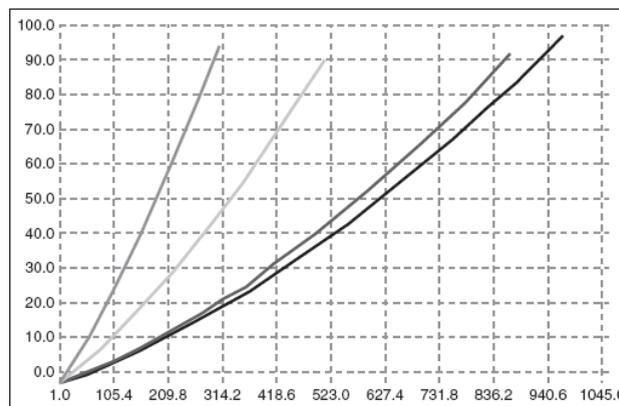
- More important than GUI control, navigation, text, and graphic design/layout bloopers:
 - Larger in scope, often generalizations of specific look-and-feel bloopers
 - Harder to identify
 - Harder to avoid
 - Often a result of decisions made in the bowels of implementation
 - Harder to correct

Blooper 40: Exposing implementation to users

- Users should not be subjected to internal implementation details when they are contrary to their working model
- Examples:
 - Speed in a game a setting from 1 to 10
 - Expect 10 to be fast and 1 to be slow, but it was the opposite
 - Delay loop for the setting's number of times
 - Limits on data sizes to “weird” numbers
 - 16, 32, 64, 128, etc.
 - Most people would prefer 10, 100, 1000, etc.
- Design for the convenience of users, not developers

Blooper 40 Example

- X values of graphs convenient for developers (intervals of max/10) but not for users



Avoiding Blooper 40

- Focus the user interface strictly on the tasks
 - Design the UI according to a conceptual model that includes only objects, actions, and attributes from the app's target tasks
- Design for the convenience of users, not developers
 - Requires extra work for the developers, but hopefully they take pride in making software that is easy to use!

Blooper 41: Needless restrictions

- Needless restrictions, like unnatural actions, are hard to learn, easy to forget, and annoying

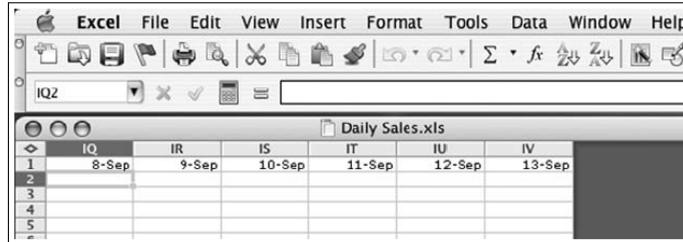


TS
"What do you mean Rumpelstiltskin is too long for a password?!"

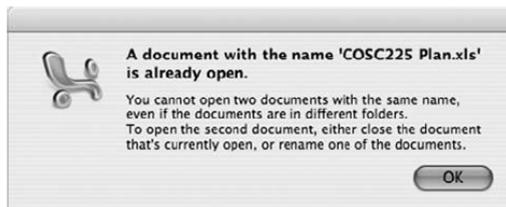
Why is Rumpelstiltskin too long? Probably some arbitrary database limitation, perhaps set to 10 characters.

More common limitations would be some power of 2; e.g. 32 or 64 char limit

Blooper 41 Examples



Microsoft Excel: 256-column limit is artificial and prevents creation of useful spreadsheets.



Microsoft Excel: blocks opening two files with same name.

Avoiding Blooper 41

- Don't impose numerical limits, if possible
 - Use dynamic allocation of storage
- Use powers of 10 not powers of 2



MacOS X: higher "number of colors" options expressed as powers of 10.

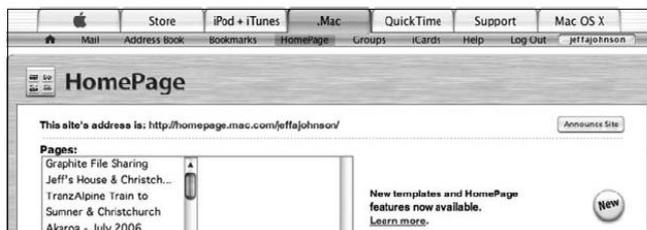
Blooper 42: Confusable Concepts

- One way an app's conceptual model can be confusing is to include concepts that overlap in meaning or function
- E.g. website that allows people to look for a home by: (a) town (b) location on a map
 - Users had to choose one or the other but users missed the artificial distinction since both are “by location”

Blooper 42 Example



A



B

Apple .Mac.com online service: two different “home” pages.

Blooper 43 : Asking users for unneeded data

- This is a sure way to annoy users
- Variations:
 - We forgot, tell us again
 - Unnecessary questions
 - Requiring data that should be optional
 - Requiring repeated logins in a session

Blooper 43 Example

The screenshot shows a web interface for 'FareWatcherSM 2'. At the top, there is a header with the text 'FareWatcherSM 2:' and a link 'Delete this FareWatchSM >'. Below the header, there is a section titled 'Watch fares for this city pair' with two input fields: 'From: San Francisco, CA' and 'To: Nairobi, Kenya'. Below this, there is a 'Similar Cities' section. It contains two prompts: 'We found more than one location that matches the name you gave. NAIROBI, KENYA has the following close matches. Please select one.' followed by radio buttons for 'Nairobi, Kenya (NBO)' and 'Nairobi Wilson, Kenya (WIL)'. The second prompt is: 'We found more than one location that matches the name you gave. NEW YORK, NY has the following close matches. Please select one.' followed by radio buttons for 'New York, NY (NYC)', 'New York-Kennedy, NY (JFK)', 'White Plains, NY (HPN)', 'Newburgh/Stewart, NY (SWF)', 'New York-LaGuardia, NY (LGA)', and 'Newark, NJ (EWR)'. At the bottom of the 'Similar Cities' section, there are two buttons: 'Continue' and 'Cancel Go To Home Page'.

Travelocity.com: requires user to disambiguate airports every time the FareWatcher is updated.

Blooper 43 Example

33. List the names of all of the employers you worked for in the last 18 months, the dates you worked for each employer, the wages you earned from each, and how you were paid. Please also indicate the employer you worked for longest by selecting the radio button next to that employer. [Help](#)

	Employer Name Help	From Date (mm/dd/yyyy)	To Date (mm/dd/yyyy)	Earnings	How Paid
<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

34. Regarding the employer in question 33 that you indicated you worked for the longest, please answer the following:

34a. How long did you work for that employer?

Years Months

EDD.CA.gov: form asks user for data that could be deduced.

Blooper 43 Example

* I need assistance with or have questions/feedback about:

* Comments:

What area of our site is this feedback about?

o For comments about a specific web page, broken link, or web performance, please indicate the URL (address):

* Country:

If "Other", please specify:

* Would you like us to respond to your comments?

No, a response is not necessary.

Yes, please respond to:

o Your Name:

o Email Address:

Telephone:

Agilent.com: demanding more data than needed. Comment form requires country needlessly.

Avoiding Blooper 43

- Make it a high priority NOT to require users to enter data repeatedly.
 - Ask only for data you really need
 - Stick to the current transaction
 - Don't make any data "required" unless you really can't proceed without it
 - Don't require data some customers won't have
 - Deduce as much as you can from information given to you instead of adding additional fields

Blooper 44: Asking users for random seeds

- Programs shouldn't ask the user to seed the random number generator
 - One exception: generating secure keys (require lots of random typing, mouse motion, etc.)
- Meaningless to most users
- People don't give good random numbers
- Avoiding the blooper: Incorporate random intervals/timers, if date/time not good enough, something like random.org

Blooper 45 : Pointless choice

- A second special case of requiring users to enter unnecessary data is presenting data with unnecessary choices
 - No difference between choices
 - Users don't know which to pick
 - Obvious answer
 - False choice

Blooper 45 Example



Sibelius.com: users have no basis for choosing between download servers.

Blooper 45 Example

From: sfo To: auckland

A

Flights Search » Select » Review » Purchase

There are multiple airports in the city you entered. Please select a specific airport from the list below or select the city name to expand your search. [Back to Flights Search](#)

To: You entered "auckland"

Select	City/Airport name	City/Airport code	City	State/Country
<input checked="" type="radio"/>	Oakland International Airport	OAK	Oakland	CA United States
<input type="radio"/>	San Francisco International Airport	SFO	San Francisco	CA United States
<input type="radio"/>	San Jose International Airport	SJC	San Jose	CA United States
<input type="radio"/>	Auckland Airport	AKL	Auckland	New Zealand

Select >>>

B
United.com: search for flights from SFO to Auckland results in needless choice.

Blooper 45 Example

From: sfo To: denver

A

Flights Search » Select » Review » Purchase

There are multiple airports in the city you entered. Please select a specific airport from the list below or select the city name to expand your search. [Back to Flights Search](#)

To: You entered "denver"

Select	City/Airport name	City/Airport code	City	State/Country
<input checked="" type="radio"/>	Denver International Airport	DEN	Denver	CO United States

Select >>>

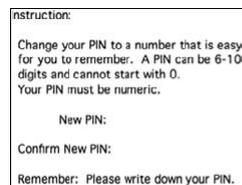
B
United.com: search for flights from SFO to Denver results in needless "choice" of one.

Avoiding Blooper 45

- If the choice makes no difference, don't offer it
 - How do you know? Test it!
 - Watch people using your software
- If users won't understand the question, don't ask
- If there is an obvious option, choose it
- Don't offer false choices

Blooper 46: Hard to remember ID

- The most obvious way to burden users' memory is to require authentication identification they cannot remember
 - Assigned, non-changeable passwords
 - Unreasonable password restrictions



Instruction:

Change your PIN to a number that is easy for you to remember. A PIN can be 6-10 digits and cannot start with 0. Your PIN must be numeric.

New PIN:

Confirm New PIN:

Remember: Please write down your PIN.

Client Web application: restrictions prevent users from devising easy-to-remember PIN.

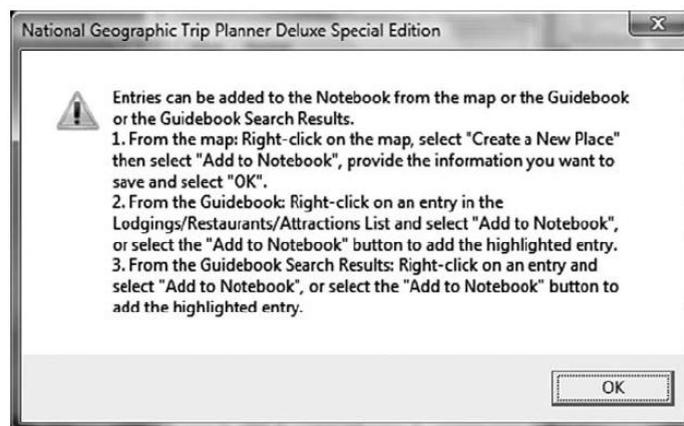
Blooper 47 : Mission Impossible Instructions

- Instructions that go away too soon



- Detailed instructions should remain on the screen while the user is carrying them out
 - Latest Office apps display help in right hand pane

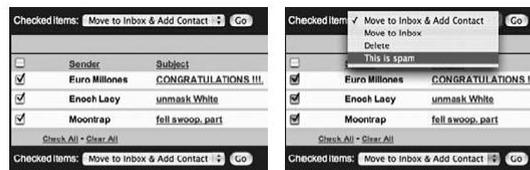
Blooper 47 Example



National Geographic Trip Planner: three options, each with several steps.

Blooper 48: Unnecessary or poorly marked modes

- If your software has modes, users may not know which mode they are in and enter a command meant for the inactive mode
- Examples:
 - Try to drag a rectangle to select objects but end up drawing a line instead
 - Printer outputs in landscape instead of portrait



Earthlink WebMail: effect of "Go" button depends on action set by menu.

Many harmless modes

- Word is teeming with modes
 - View: Normal, outline, page layout
 - Auto correct: on, off
 - Insert or overwrite text
 - Auto save: on, off
 - Smart cut-and-paste: on, off
 - Etc.
- Most of these modes don't cause errors because they are rarely changed from defaults
 - Many users may not even know of these modes

Toasters have modes

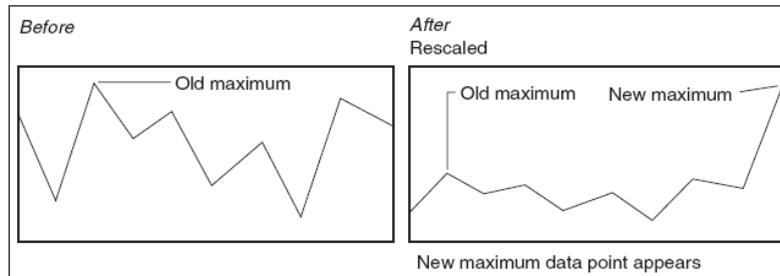
- The “darkness” control on a toaster is a mode that sometimes results in burnt toast when the last time you put in a frozen waffle
- How could you make a modeless toaster?

Avoiding Blooper 48

- Remove or minimize mode settings
 - E.g. for a photo application instead of a mode for “browse” and a mode for “edit” there might be separate windows for each
- Minimize the use of modal dialog boxes unless it is crucial the users not interact with things on the display
- Make modes visible and difficult to miss

Blooper 49: Unexpected Rearrangement of Display

- What if the OS constantly rearranged your icons for you?
- Example



Graph rescales vertical axis automatically when data points arrive or depart.

Blooper 49 Example



Messages.Yahoo.com (2000): position of "Previous" and "Next" links changes between pages.



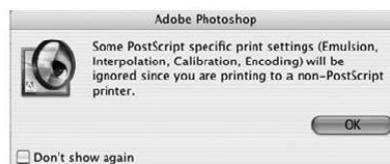
Messages.Yahoo.com (2006): position of "Previous" and "Next" links is always the same.

Blooper 50: Dialog Boxes that Trap Users

- Dialog boxes sometimes provide no way out other than a direction that users don't want to go.
 - No cancel
 - All paths are wrong
 - Required button is inactive
 - Unclear choices
 - No, not OK

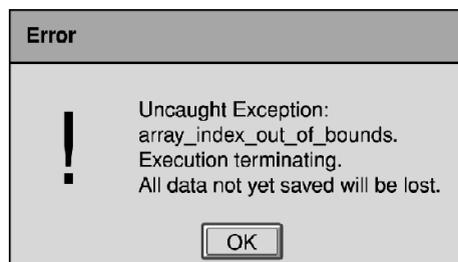
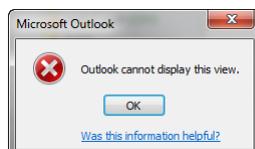
Blooper 50 Example

- No Cancel

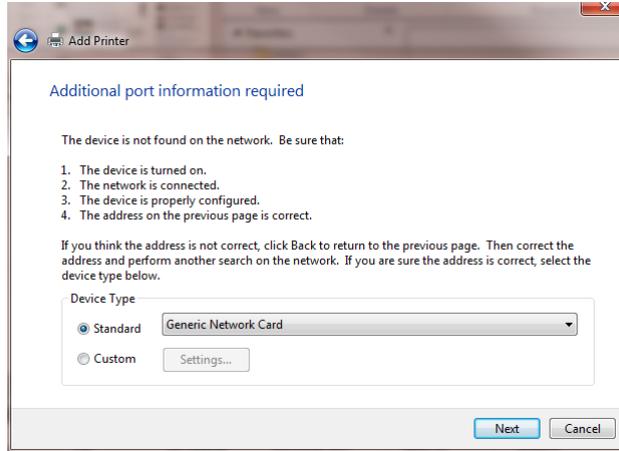


Adobe PhotoShop: Print setting warning provides no "Cancel."

- No, Not OK!



Click Back



Wrong paths in the dialog box



Apple MacOS X: printer "Out of Paper" warning provides no way to load paper and continue.



Required button is inactive

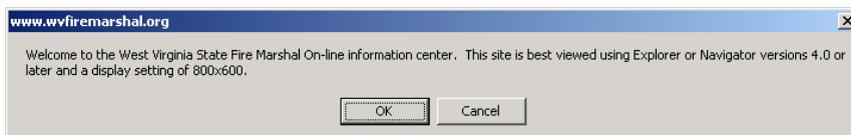
Apple iPhoto: Problem Report window's "Send to Apple" button stays inactive.

Avoiding Blooper 50

- Provide users with alternatives so they don't feel trapped
- Analyze goals users could have when the dialog box appears so you can provide the right options
- Test dialog boxes with users
- Don't use "OK" for bad messages
 - "Acknowledged", "Understood", "Sigh...not again"

Blooper 51: Ok and Cancel do the same thing

- OK should mean "Yes do this" and Cancel should mean "No, I don't want to do this"



- Other variations where cancel doesn't cancel
 - E.g. action already done and software doesn't support undoing it