Recommendations on Recommendations - Master Solution
Version 6, 26 April 2007

This is a collection of proposed solutions to the six usability problems posed for the interactive session "Recommendations on Recommendations" at the CHI2007 conference in May 2007 in San Jose, CA.

Most of the solutions score highly both with respect to usefulness and usability. However, we have also included a number of solutions that have been proposed frequently and that we consider less than optimal for the reasons provided.

The suggested solutions are not supposed to be exhaustive. There may be other solutions that score equally well with respect to usefulness and usability.
Usability problem 1 - IKEA PAX Planner - Getting started

Usability problem description: When users click on “Create your own solution” instead of selecting one of the presets they don’t know what they should do first to start building a wardrobe.
Usability problem 1 - Proposed solution a ("Start with a Frame in Place, Unobtrusive tip")
Design your wardrobe:
1. Create wardrobe frames by clicking in the white drawing area. Remove frame by clicking the "X" in upper right corner of frame.
2. Adjust the dimensions of a wardrobe frame by first clicking on it and then setting the height, width, and depth as desired.
3. Click to design wardrobe doors
4. Click to design wardrobe interiors
5. Print your Shopping List and head to your nearest IKEA store.

SEE A DEMO (less than two minutes)  CLOSE
Start with a default frame in place to show users what the grid is for. Also, provide unobtrusive hints to get the user started.

Display the unobtrusive hints shown above in the drawing area (Click to create a wardrobe frame and How does this work? Click to see Tip) when the PAX Planner Tool window opens. Display the Tip pop-up when the user clicks How does this work? Objects added by the user are added over the hints, gradually covering them up. The hints disappear when the user clicks the DOORS or INTERIOR tabs.
**Usability problem 1 - Proposed solution b ("Step-by-step instructions")**

Present the user with a pop-up window that appears in front of the Designer interface when they click on “Create your own PAX solution”. The window would look like the “Select a Preset” window.

Allow users to step through three simple screens that illustrate how to use the interface.

The explanations are NOT detailed, and they only cover the few essential points that might not be obvious about using the interface.

They should be prototyped and tested before implementing them to determine that they are simple and lean enough that people will actually click through them.
Additional points:

- Indicate (next to the “NEXT” button, somehow) that there are three screens to step through.
- Allow people to skip the intro altogether (perhaps a “Skip intro” button, also at the bottom).
- The user should be able to look at the intro later (a persistent “Replay instructions” button somewhere in the UI.)
Usability problem 1 - Proposed solution c ("Wizard")

IKEA
It's easy to plan your PAX Wardrobe.
1. Choose a size and material. Click the planner and the frame appears.
2. Select door styles and click each frame.
3. Drag interior fittings onto the frames.
   Remember, interior pieces will not fit over hinges.

1 FRAMES 2 DOORS 3 INTERIOR

**Persistent instruction**
**Larger, numbered tabs**

Click to create a frame

**Next button**
Redesign this to look like a Wizard (sequence of pages corresponding to steps) in which each page has controls for specifying only one wardrobe-design issue. At the bottom of each page are the standard Wizard “Back” “Next” and “Cancel” buttons.

**Major objection:** This instructions at the top of the window (*It’s easy to plan your PAX Wardrobe*) extend the size of the window. It is not clear if this is technically feasible.
Usability problem 2 - IKEA PAX Planner - Check the dimensions of this frame

Usability problem description: Users do not realize that interior items, such as shelves, must match the dimensions of their wardrobe exactly. The message, “Check the dimensions of this frame”, isn’t helpful.
Usability problem 2 - Proposed solution a ("Change the error message")

Change the error message from

   Check the dimensions of this frame

to

   This shelf is not the right size for this frame. Check the dimensions of the frame and shelf and choose another size.

When required, replace shelf with the appropriate name of the interior component, for example drawer.
Usability problem 2 - Proposed solution b ("Do what the user wants")

Automatically adapt the width and depth of an interior item to the frame. For example, if the user attempts to insert a 19 5/8” wide shelf in a frame that is 39 3/8” wide, simply insert a 39 3/8” shelf of the same type if it is available.

In addition, consider simplifying the lists of interior items by listing items only by wood-type (without width and depth). Insert the right sized item depending on where the user clicks.

In other words: Do what the user wants - if there is no doubt.

If a shelf of the required width or depth is not available, show the message

*Sorry. The frame is 39 3/8” wide, but that shelf width is not available.*

When required, replace shelf with the appropriate name of the interior component, for example drawer.
Usability problem 2 - Proposed solution c (“Display only items that fit”)

When designing interior components, users expect only items that fit the selected frame to be shown, so they often select items that don’t fit.

Recommendation: If possible, require the user to select a frame (as required on the DOOR tab), and then configure the tool to show only those items that fit the selected frame.

Major objection: This recommendation would make it more complicated for users to place interior components in several wardrobe frames.
Usability problem 3 - IKEA PAX Planner - Confusion about hinges

Usability problem description: When users first click on the Interior tab, they get the above message. Users don’t understand the message, “Interior fittings cannot be added where there are hinges.” The little gray dots are hinges, and you can’t put for example a drawer in over a hinge.
Usability problem 3 - Proposed solution

Display a message only when the need arises when the user attempts to place a component that actually conflicts with a hinge.

If the user attempts to place a component that conflicts with the hinges, display the message:

*Sorry, this shelf conflicts with the door hinges, as shown by the gray circles.*

When required, replace *shelf* with the appropriate name of the interior component, for example *drawer*.

If the user adds doors to a frame that contains components that conflict with the hinges, place a red rectangle around the offending components and display the message:

*The components (shelves, drawers, etc.) shown in red occupy space needed for the hinges for the doors. Please remove these components before you add the doors.*

Identify hinges as

*Door hinges. You can’t add shelves, etc., at this level*

upon rollover with the mouse.

Never show this message if the frame has no doors or if sliding doors are used. Do not display the door hinge circles if the user has selected “no doors” or “sliding doors”.
Usability problem 4 - Enterprise Rent-A-Car - Specials overlooked

Usability problem description: When asked to look for the best deal, users overlook specials ("Weekend Special"), thinking it is an ad. Most recall seeing it, but click on it only when prompted.
Usability problem 4 - Proposed solution a ("Leave it as it is")

Leave the home page as it is.

The fact that users do not click the ad does not prove that they haven’t seen it or the message it communicates.

Consider replacing "Book Now" in the ad with a bigger "Learn More"
Usability problem 4 - Proposed solution b ("Make the key user tasks more visible")

Focus on the key tasks. The usability problem is that the marketing messages dilute focus from the main task, which risks loss of business.

Make the key user tasks highly visible as outlined in the sketch below (or see JetBlue.com or Southwest.com). The key tasks are: Make a reservation. View/Modify/Cancel a reservation, Special offers, Customer login. The remaining tasks are accessible through the top bar or the bottom links.

It is assumed that users get the special weekend rate regardless of whether they go through the promotion. Make this more clear in the description of the Weekend special.
Usability problem 5 - Enterprise Rent-A-Car - “We’ll pick you up”

Usability problem description: An exact description of the procedures, benefits and limitations of the “We’ll Pick You Up” service is hard to find.
Usability problem 5 - Proposed solution a ("Provide details on a separate page")

Make *We'll pick you up* clickable in all places where it appears. Show that it's clickable by displaying it as a link (underlined and in blue color).

When the user clicks *We'll pick you up* display a window containing a message like the following, which resembles the pick-up information in Help:

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We'll pick you up - Details

- **FREE pick-up** up to 10 miles from rental office.
- **Pick-up includes** driver and as many passengers and luggage as rented car is designed to hold.
- **To schedule pick-up**, call the Enterprise office where you will rent the car about one hour prior to your pick-up time. Pick-ups are available only during normal office hours. [If it’s technically possible and the user has selected a rental office, add the telephone number of the office the user has chosen:] The telephone number of our Boston office at Congress Street is (617) 723 8077.
- Airport rental offices do not offer "We'll pick you up". Our non-airport rental offices will not pick you up at airports; use the airport rental office instead.
- **Pick-up service takes you to an Enterprise office to rent your car; it is not a car delivery service.**
- **Free dropoff** after you have returned your car, with same restrictions as for pick-up.
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Usability problem 5 - Proposed solution b ("Make the message more prominent")
Visual elements contribute to making the information hard to spot. The dark border, different colored background, and small, center spaced text make the information look separate and ‘not applicable’ to what the user is doing - highly resembling footer links that users generally ignore.
Recommendations: Remove the border and gray background that separate the information from the task pane above it.
Make the message prominent to draw attention by increasing font size and left align the message for easier reading.
While keeping the message on the bottom, consider also including the 'We’ll Pick You Up’, message (with the link to a full policy) in right or left columns higher on the page’ to keep this benefit visible.
For more impact, modify the message to read

   We’ll pick you up for FREE    Read our pick up policy

and also emphasize this important benefit on the homepage and on pages throughout the booking process.

Major objection: This recommendation does not address the original usability problem.
Also, promoting the "We'll pick you up" service heavily on the web page is a business decision. Making the service more visible will cost the company money and may clash with business goals.
Changing the message from "We'll pick you up" to "We'll pick you up for FREE" is a branding issue.
Usability problem 6 - Enterprise Rent-A-Car - Exact cost of car rental

Usability problem description: The total cost of the rental is not clear. Additional surcharges, local taxes, the costs of selected Optional Protection Products, etc., are not included in “Total charges” even when all required information has been entered. These additional costs may be substantial.
We propose two alternative solutions, depending on the possibility of including all charges in the total. Alternative a ("Status quo made clearer") assumes that there is a constraint that makes it impossible for the tally given by this page to include any more of the costs in the total than are currently included; it attempts to make clearer that the price shown excludes those additional costs. Alternative a would also be used if some of the currently excluded costs could be included in the total.

Alternative b ("Providing true cost totals, preferred") assumes that it is possible to include all costs in the price shown on this page.

**Usability problem 6 - Proposed solution a ("Status quo made clearer")**

Don’t use the term *total* on this page; it is misleading. Change the section title *Total Cost Estimate* to *Estimated Rental Cost*. Change the *Total Charges* line label to *Sum of Rental Costs*.

The Costs section lists as many costs as possible. Try hard to include all non-local costs, e.g., surcharges, costs of protection options the user chose. Itemize these and include them in the total.

Change the asterisk explanation below *Total Charges* from *Additional surcharges, local taxes, etc. may apply* to *Note: Cost may be higher than shown above due to additional surcharges, local taxes, and your chosen protection options*. The underlined words are links that display pop-up explanations.
Usability problem 6 - Proposed solution b ("Providing true cost totals")

Use a setup similar to the following from Alamo Rent-A-Car where all surcharges, taxes, etc., are instantly visible: