Bad Human Factors Designs
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A scrapbook of illustrated examples of things that are hard to use because they do not follow human factors principles.

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Kitchen timer

- Nice kitchen timer unless you want to set a time less than 15 minutes.
  - To do so you must first turn the indicator to a time greater than 15 minutes and then turn it back to the time you actually want.
  - If you set times less than 15 minutes without first turning the indicator past 15 minutes, then the timer doesn't go off.
- Design suggestion
  - Design violates your expectations by having one rule for setting times greater than 15 minutes (turn the indicator to the desired time) and a different rule for setting times less than 15 minutes (turn the indicator to a time greater than 15 minutes and then to the desired time).
  - A device like this should follow a consistent rule.

This is a mop sink

- Picture is from a restaurant in Santa Barbara.
  - No urinal in the men's restroom
  - The fixture in the corner affords a certain activity
  - Try to discourage this activity someone taped a small sign to the wall above the fixture
- Design suggestion
  - The mop sink looks enough like a urinal to use it as one
  - When simple things have signs, especially homemade signs, it is usually a signal that they aren't well-designed.

How do you open the toothpaste?

- Overnight flight, passengers were provided with little "kite" including a toothbrush and a tiny tube of toothpaste
  - Discovered the tube was sealed.
  - Didn't have anything with me to pierce the seal, tried to pop out the seal by squeezing the tube.
  - Side of the tube splitting open and sending toothpaste all over my trousers!
- Design suggestion
  - Provide the type of sealed cap used on many soft-drink bottles, where unscrewing the cap breaks the seal.
  - At the very least it would be helpful to include directions on the tube for piercing the seal. The directions should be illustrated graphically so they could be understood by speakers of any language.
Trapped Between the Doors

- Short walkway connecting two buildings, set of doors at each end of the walkway
  - Friend was walking from one building to the other with a co-worker
  - Pulled the handles that opened the doors and went down the walkway
  - Upon reaching the other end they again pulled the handles, but the doors wouldn't budge
  - Assuming the doors were locked, they returned to the doors they originally opened to enter the walkway. But when they tried to pull these doors, they wouldn't open either. They were trapped in the walkway between the two buildings!
  - Finally, after trying the doors again, they discovered they needed to push the doors rather than pull them.

Design suggestion

- Two problems with these doors
  - Handles are designed for pulling rather than pushing. Doors designed for pushing usually have handles with flat surfaces that look easy to push and hard to pull.
  - The second problem is that the two sets of doors work in opposite ways. To pass through the walkway you must first PULL open one set of doors and then PUSH open the second set of doors.

One way to solve this problem would be to install (swinging) doors that can be opened by both pushing and pulling.

Another solution would be to install appropriate door handles.

PUSH and PULL labels could be added to the doors, but this would not be an ideal solution. Labels would only work for people who could read the language.

Out of order?

- We were late for the recital, dashed over to the parking permit machine
  - Took a dollar from my wallet and tried to insert it into the bill reader, would not respond at all
  - "It's out of order!"
  - Started walking to the recital hall, we saw a man walk up to the same parking permit machine and proceeded to buy a permit!

What was the problem?

- You first have to push a button (any button) on the parking permit machine to activate the bill reader
- Clearly says this on the machine in large print

Design suggestion

- Design suggestion
  - Should be designed to accept bills prior to making a ticket selection; people expect vending machines to work that way
  - Printed instructions, even obvious ones, aren't going to be read by some people, especially those in a hurry or believe they already know how to use

How do you open the refrigerator?

- New job, there is a refrigerator where employees put their lunches
  - First time I tried to open the refrigerator I didn't see a handle on the front, but I found one on the left side of the door
  - Pulled on the handle, but the door would not open, pulled harder
  - Someone standing nearby told me, "It opens from the other side. I had the same problem when I first tried to open it."

Door was designed so it could be hinged on either the left or the right side. Thus, handles were put on both sides

Design suggestion

- Design suggestion
  - Handle on the front of a refrigerator door so that it can be easily seen
  - Reversible door with handles on both sides of the door, should be a way of removing or concealing the handle on the hinged side
Opening the File Drawer

- New file cabinets in our offices
  - Tried to open the top file drawer by pulling the handle on the top, which pulled the whole file cabinet out from under the table

- Design Suggestion
  - After about a week or two, I didn’t make the mistake of trying to use the handle on the top to open the drawer
  - Handle on top should of been recessed like the drawer handles

Where is a soup spoon?

- Cafeteria has 4 boxes, each containing plastic teaspoons, soup spoons, knives or forks
  - One has to guess which boxes contain them since only the handles of the utensils are visible and the handles look the same
  - Sometimes the boxes are labeled but usually the labels are either missing or not visible
  - Boxes seem to be in different positions each day, so one can’t rely on learning where each kind of utensil is by its location

- Design Suggestion
  - Manufacturer to mold a small image of the utensil into the handle

Needle in a haystack