User Interface Design Continued

CSCI 3300/5300

Guiding Users Through Interface Design (Summary)

- Whose job is it anyway
- Effective User Interface Design
- Ethical Issues

Whose job is it anyway

My first thought when reading this is how the article is going to tackle the computer scientist's role in this digital nudging. How much is going to be up to a marketing strategist and how much is the programmer going to decide?

- Who is responsible for the User Interface Design?
- Important to be aware of how User Interface Design impacts user actions
- Software Engineering is not just about programming

From Your Comments

That is why a programmer a lone does not design products. Companies that are doing well have a plethora of design phases and staff who make the product a success at the end of the day: Product Managers, Data Scientists, Software Engineers, Sales Engineers, QA/Testing etc., all working together to roll out a great product.

Effective User Interface Design

Why is the unintended effect of digital nudges can lead to backers selecting the lower-price rewards? It is because the backers can clearly see that the designers are intentionally forcing them to select a certain option?

- Lower-price reward is selected as the default option
- Nudges are poorly designed

Effective User Interface Design: Not Always Effective

I've seen in a few web pages offering products that the product is undergoing a sale for "only 3 more days", only for that timer to reset after the 3rd day anyway. In this case, blatantly lying to the user about the scarcity/time limit is clearly unethical. If there truly is a limited amount of a certain product, more-so in the case for physical products (software can't just 'run out'), then I believe its okay to apply this technique.

- Not all nudging is effective
- Nudging to trick the user vs nudging to guide the user

Effective User Interface Design: Testing

I agree that nudges should be tested to measure their efficacy. However, as a user, it may become annoying to see a user interface change frequently just for the sake of the developers wanting to test what works best.

- How can we test the effectiveness of UI design changes without annoying the user?

Effective User Interface Design: Morphing

- What are examples of "morphing" that we see today?
- https://sloanreview.mit.edu/article/morphing-the-web/
- Adjusting the "look and feel" of the web site based on user's cognitive style
- Example:
  - giving analytic potential customers more data and technical detail
  - reducing the complexity for holistic information processors
  - giving impulsive users succinct recommendations
  - providing engaging learning experiences to deliberative customers

Ethical Issues

Is something like that even legal to do? It seems like a case of false advertising in order to force the customers to buy the selected item.

But why does one need to deliberately create a planned bias and decoy at user interface. I see like cheating the consumer in a discrete manner

The 8 Golden Rules of Interface Design

By Ben Schneiderman: https://www.cs.umd.edu/users/ben/goldenrules.html

1. Strive For Consistency

- Consistent actions in similar situations
- Consistent terminology: prompts, menus, help screens
- Consistent color, layout capitalization, fonts, etc
- Exceptions: usability over consistency
- Example: Amazon Checkout Process

2. Seek Universal Usability

- The needs of diverse users
- Various levels of expertise
- Age ranges
- Disabilities
- International Variations
- Technological Diversity: screen size, network speed, browser version, screen reader software, mobile devices
- https://webstyleguide.com/wsg3/2-universal-usability/4-guidelines.html
- Bad example: http://www.arngren.net/

3. Offer Informative Feedback

- Feedback for every user action
- Modest feedback for frequent and minor actions
- Substantial feedback for infrequent and major actions
- Example: when filling out an online form, a checkmark appears on the side, to indicate the field is filled out correctly
  - Google form example: https://docs.google.com/forms/d/e/1FAIpQLSf-ThHNhVTd1vLEg8k4rZOFXJpB91Dgbc_13tVo1U4QU_YX4Q/viewform?vc=0&c=0&w=1

4. Closure

- Every action should have:
  - Beginning
  - Middle
  - End
- Informative feedback at the completion of an action

5. Prevent Errors

- Design interface such that errors can be avoided
- Examples:
  - Disable buttons
  - Gray out menu options
  - Disallow alphabetic characters in a number field
- If a user makes an error, offer simple constructive recovery instructions
- Recovery should be easy: user should not have to re-type the entire form just to fix an error in a zip code field

6. Allow Easy Reversal of Actions

- The "Undo" command
- Reliefs anxiety, as users know that errors can be reversed
- Example: Shutterfly photo book interface

7. Keep Users in Control

- No surprises or changes in familiar behavior
- Avoid tedious data-entry sequences
  - Prepopulate as much data as possible
- Make it easy to find information
- Make it easy for the user to produce desired result
- Bad Example: https://www.lingscars.com/

8. Reduce Short Term Memory Load

- Rule of thumb: people can remember 7 plus/minus 2 chunks of information
- Avoid forcing the user to remember information from one display and use it in another display

Some More Bad Examples

- http://www.suzannecollinsbooks.com/
- http://www2.pnwx.com/
- http://www.patimex.com/