**Assignment 8 Write-Up - Dark Patterns Forest Game**

**Part 1:**

* Dark Patterns Forest is a 2-d retro-styled click-through game designed to educate students and designers alike about dark patterns, or design artifacts (buttons, screens, etc.) that manipulate users to support stakeholder goals and not necessarily user goals, often unwittingly (Gray et al., 2018).
* Through gameplay, players will face a main antagonist (a combination of two established dark patterns – confirshaming and misdirection), which is concealed in the guise of a monster, and represented as a “Subscribe Now” box on screen. If a player defeats the monster, named Misinformation, they will be able to learn more specifics about each dark pattern. In the future, more monsters will be added.
* The game presents information about a combination of dark patterns that is embedded in a fictional narrative, where the player adventures through a “forest” and faces a monster before they can proceed further. In this way, the game utilizes obfuscation as an embedded design technique to frame the game’s true intentions not as a learning tool, but hopefully as an entertaining, amusing, and maybe even challenging walkthrough game (see Geoff Kaufman in References). Furthermore, I styled the game in a pixelated 80’s-type manner to evoke the retro arcade game format.
* The target audience is primarily students and designers, in order to teach people how dark patterns may manifest and manipulate in real life. I also wanted to show how we as designers might pass on or perpetuate these dark patterns in our work. I also hope that perhaps with further iterations, the game will be fun enough that regular PC gamers will enjoy playing.

**Part 2:**

* game\_Start:
  + Click on Play button to begin game
    - Title and Play button will slide down and disappear, unknown ‘Dark Patterns Monster’ and “Engage” button will slide in from top and then stop moving
    - Clicking Engage will open up a intro modal
      * Pressing “Ok” will send users to the subscribe\_Start page
  + Click on Treasure Chest to view the treasure\_Chest page
    - Will be empty until Misinformation monster is defeated and the information is added to the chest
  + Click on About to go to about.html page
* subscribe\_Start:
  + Click Go button to begin the challenge
* subscribe\_Play:
  + Clicking the text, “No, I don’t like being interesting” will send the user to success\_Screen1
  + Clicking “Subscribe to this newsletter” button will bring up a ‘fail’ modal
    - Click Ok to lose/proceed to fail\_Screen
  + Waiting for more than 10 seconds to make decision will show “Oh no! You ran out of time!” modal
    - Also results in redirecting to fail\_Screen
* fail\_Screen:
  + Immediate pop-up of modal of monster explaining that you lost (and it will likely eat you)
  + Click Ok button to continue to game\_Over
* success\_Screen1
  + Immediate pop-up of modal of monster explaining its name, Misinformation, and that you defeated it
  + Click Ok button to continue to success\_Screen2
* success\_Screen2
  + Immediate pop-up of modal of monster explaining further game expectations
  + Click Ok button to continue success\_Screen3
* success\_Screen3
  + Player is prompted by “Defeat Monster” button
    - Upon clicking, ‘Misinformation’ Monster disappears, and produces a static image of a small explosion
    - After 1500ms, page redirects to success\_Screen4
* success\_Screen4
  + Immediate pop-up of modal explaining that a new pattern was added to the Treasure Chest
  + Player is suggested to click on Treasure Chest icon to go to treasure\_Chest2.html
* game\_Transition
  + Ultimate goal is to have this as a transition page between monster levels
  + Right now, serves to connect Level 1 Monster with game\_End page
  + Click Go On to go to game\_End
* game\_Over
  + Text: Game Over
  + Will automatically re-direct to game\_Start after 3000ms
* game\_End
  + Text: “Thank you for playing! More to come soon…”
  + Single “Tree” square rotating in middle
  + Press Continue to return to game\_Start
* About Page
  + Click on left arrow to return to the previous page
* treasure\_Chest
  + Click on right arrow to return to the previous page
* treasure\_Chest2
  + When box has image of Monster inside, click to open up misinformation\_Explanation page
  + Click on right arrow to go to game\_Transition.html
* misinformation\_Explanation
  + Click on right arrow to return back to treasure\_Chest2

**Part 3:**

* Tools used: Bootstrap modals and CSS animations
* Bootstrap modals were a necessity to my game, owing to how much information could be best represented in pop-up boxes. Bootstrap also assisted with the responsive design of the HTML. CSS animations were essential to providing a game-worthy look and feel, and help retain a lively style (i.e. the sliding transition at the beginning, hover buttons, and the rotating tree at the end).
* I used Bootstrap modals by referencing the BootstrapCDN on every HTML page. I utilized their modal example and modified it when necessary (such as with CSS and for the immediate pop-up version). For CSS animations, I found examples on the web which could apply to the specific need I add.
* Bootstrap modals help contain critical information in a way that helps lower the demand of reading and fits in with the style of the game format. CSS animations keep the game flow lively and enjoyable.

**Part 4:**

My initial HW7 submission was vastly different and beared no resemblance to the dark patterns game that is currently built. The original concept was an informative website about the *Skyr* (Icelandic yogurt)-making process. However, I began feeling no affinity for this idea, and decided to follow Jason Hong’s advice (shoot for the stars/do what you’re really interested in). Realizing I was excited about understanding dark patterns, and with my TA Fanglin’s approval, I used my graphic design skills to make a very high-fidelity mockup (complete with flip-book-like animation) which I was able translate quite directly into HTML/CSS and JavaScript. Attached is the InVision file for the re-done Assignment 7: https://invis.io/GXP20SJURMS#/330694254\_Screen1

**Part 5:**

In CSS, understanding what styling takes dominance or precedence was still difficult to parse out in order to place objects around the screen, such as with *display: flex*. Implementing JavaScript and JQuery also remains the primary difficulty. It was challenging to figure out individual sliding elements, the countdown timer, and modals (as well as how to create immediate pop-up modals).

**References**

Colin Gray’s paper on Dark Patterns

* http://colingray.me/wpcontent/uploads/2018\_Grayetal\_CHI\_DarkPatternsUXDesign.pdf Dark Patterns Website: https://darkpatterns.org/

##### Geoff Kaufman’s paper on Embedded Game Design

##### https://cyberpsychology.eu/article/view/4343/3418

Katelyn Duncan, MHCI colleague

* HTML/CSS and JavaScript help as well as knowledge about Dark Patterns.

BootStrap Modals

* https://getbootstrap.com/docs/4.0/components/modal/

Hover animation inside a div:

* https://codepen.io/lucy\_wheel/pen/VxYzKP

Countdown Timer

* https://www.w3schools.com/jsref/met\_win\_setinterval.asp
* https://www.w3schools.com/jsref/met\_win\_clearinterval.asp
* https://stackoverflow.com/questions/31106189/create-a-simple-10-second-countdown

Rotating Tree

* http://jsfiddle.net/9Ryvs/8/

Automatic Page Redirecting

* https://stackoverflow.com/questions/3292038/redirect-website-after-certain-amount-of-time

Transition Animations

* https://developer.mozilla.org/en-US/docs/Web/CSS/transition-timing-function
* https://developer.mozilla.org/en-US/docs/Web/CSS/transition-delay