2021

Emotions and the User Experience

FINAL PAPER

DEWS, MEGHAN

My company, Pearson, recently released a new product called Pearson+. This release was a big deal as it is the first time that several of our eTextbooks are being offered in one location. On top of that, a user can create notes and flashcards. With this new product being such a big deal, it was decided that the Pearson+ home page (https://www.pearson.com/en-us/pearsonplus.html) should take on a refreshed look and feel. It contains animated CSS as the user scrolls down the page, brightly colored gradient buttons, a chat feature and a collage-type hero image.

Recently, there has been talk of the product not doing as expected, sales are down quite a bit. I'd like to test this new design to see what exactly could be attributing to this lack of sales. What specifically can be improved to help get sales back to where they need to be. The testing processes and techniques I believe would help to accomplish this are as follows.

System Usability Scale

SUS is an important tool which offers 10 statements where users can rate each item user the 5-point Likert scale. Since most users will want to respond with natural human emotion by giving a compassionate answer, this will help to reduce positive feedback pressures. This will help to get more accurate emotional feedback of how users feel about their interactions with the Pearson+ home page. These statements could be regarding overall experience of the page as well as more specific statements regarding the hero image, buttons, animations, and chat feature.

Net Promoter Score

NPS is important to find out an overall score of how likely a user is to recommend the Pearson+ home page. Using a scale of 0 – 10 with 0 – 6 being the detractors, 7 – 8 being passives, and 9 – 10 being the promotors. The percentage of the detractors subtracted by the percentage of the promoters will equal the NPS. This overall score of recommendation will help to identify possible necessary improvements regarding the overall function of the Pearson+ home page.

Enterprise US Ranking Matrix

SUS and NPS results combined will allow for data to be plotted on a chart. SUS will determine usability and learnability score while NPS will determine willingness to recommend score. This graph will be a great visual representation of how accurate these two things are together for the overall functioning of the Pearson+ home page.

MLP

Is the new Pearson+ home page fitting the Minimum Loveable Product or Most Viable Product? Is the company choosing basic needs to save some money or being innovative? Are there any delighters? These are important questions to find out how desirable, useful, and usable this Pearson+ home page really is. The chat feature is a delighter when it comes to Pearson sites,

but it is a common feature across most web sites these days. It's not innovative in general, therefore, most likely would not be considered a delighter during testing. The same argument could be given for the CSS animations during scroll of the page. The new design looks clean, bright and refreshed, but the innovation seems to be lacking for the Pearson+ home page and possibly other marketing materials. However, the argument could be that the true delighters and innovation lie within the actual Pearson+ app itself.

The Microsoft Desirability Toolkit would be appropriate here in order to moderate a group by giving them 118 terms and having them pick the top 5 that they relate to the most. These 5 terms from each participant would be helpful in determining emotions regarding the overall use of the Pearson+ home page. Sentence completion would also be helpful by guiding the participants in matching these 5 terms with specific items or locations on the Pearson+ home page.

Dyads

Product Reaction Dyads would be helpful by using a pairing of words with the 5-point Likert Scale. Using a selected set of antonyms, a user can identify what they related to most overall. These tests would be given repeatedly throughout the process of gathering feedback and while making improvements to the Pearson+ home page. This will again remove any pressures of feeling the need to give positive responses instead of accurate responses.

Kano

When factoring in the results of MLP, MVP and performance needs of the Pearson+ home page, a Kano chart can be created. A Kano Evaluation Table would also be created based on the Likert Scale and Customer Needs Classification. This will further help to identify if this Pearson+ home page is falling more in the category of MLP or MVP, as previously mentioned above.

Eye tracking

This technique can help provide moment by moment tracking. It is important to be able to collect objective behavioral data, use a variety of data metrics to determine cognitive state, and to find out if the user is being drawn to CTAs on the Pearson+ home page. This will also eliminate the inconsistencies that arise with self-reporting due to limited memory and not being able to state unbiased moment by moment emotions. Also, eye tracking will help by being able to track fixation points on the Pearson+ home page by using heat maps and gaze plots. Determining more and less important fixation points will help to find the overall Areas of Interest (AOIs). After gathering this data, using number of fixations, fixation duration and time to first fixation will help to summarize overall fixation data. Using saccades, more saccades mean more searching, and scanpaths in conjunction with fixation data will allow for eye tracking metrics to be created for overall results. More fixations will hopefully mean more engagement with the proper CTAs on the Pearson+ home page. For example, there would

hopefully be red areas on the heat map for the “Sign in” or “View all textbooks” buttons on the Pearson+ home page.

Psychophysiology

By measuring Psychophysiological Traces, we can get an idea of the emotional state of a user when viewing the Pearson+ home page. Traces like Blood Volume Pulse (BVP) would help to discover user valence. Examining the heart rate can help reveal user arousal. Heart rate revealing an escalated rate or “fight or flight” response, should be further evaluated. This could mean that those specific areas of the page are causing stress. Blood pressure can also be measured to identify arousal. Heart Rate Variability (HRV) should also be considered with intervals between heart beats being a direct response to cognitive load. A moderated event using equipment like heart rate and blood pressure monitors/sensors will help to gather this data. It is quick to be collected and is a great measure of user valence and arousal.

Also, researching Electro Dermal Activity (EDA) would help to measure electrical activity of the skin by using Galvanic Skin Response (GSR). Sweating will fill up a pore vs an open pore indicating no sweat. Sweat would indicate stress and a poor user experience.

These techniques in combination with eye tracking would help to reveal which items specifically are creating more arousal vs valence and calm vs stress (sweat vs no sweat). Ultimately, the goal would be for the page to create positive emotions and physical reactions.

Conclusion

Attention is a precious resource which is why it’s best for the Pearson+ home page to be simple, easy, unexpected and fast. In other words, offer one thing at a time to reduce stress and the knowledge gap.

Furthermore, given that the Pearson+ home page is a marketing tool in order to get users to buy and use the new Pearson+ app, delighter and innovative requirements may not be as important. The Pearson+ app itself may be a better measure of innovation and MLP. Proper testing and research should be done on the Pearson+ app as well, for those reasons. Other possible marketing tools, such as email campaigns, would also highly benefit from the testing processes and techniques mentioned above. Especially eye tracking and psychophysiology methods. Heat maps, gaze plots, fixation points, saccades and scanpaths will all greatly help to specify what would need to be improved in detail in order to get more click-through and turn-over rates. BVP, HR, BP and HRV will all be great physical, emotional and instrumental measures of success. Implementing detailed improvements based on these data results, for the Pearson+ home page, all related marketing tools and the Pearson+ app, would be absolutely necessary.

These testing techniques all complement each other and are all necessary when referencing Scherer’s Components Processing Model. These testing techniques all work together to cover cognitive appraisal, bodily symptoms, action tendencies, expression and feelings. By using SUS,

NPS, the Enterprise US Ranking Matrix, MLP, Dyads, Kano, eye tracking, and Psychophysiology to examine the Pearson+ home page, the Pearson+ app and all related marketing tools, it will help necessary key team members of Pearson to better understand where improvements can be made in immense detail which will help to increase sales of the new Pearson+ app.