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Public Interest Centre
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International Teaching Aid
Competition 2023

Reconnoitering Innovative Ideas in Postnormal Times

iTAC

2023

iTAC 2023
INTERNATIONAL TEACHING AID COMPETITION
E-PROCEEDINGS

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Cover Design : *Asrol Hasan*

Layout : *Nurina Anis Mohd Zamri*

eISBN : 978-967-2948-51-3

Published by : Universiti Teknologi MARA Cawangan Kedah,
08400 Merbok,
Kedah,
Malaysia.

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PREFACE

iTAC or International Teaching Aid Competition 2023 was a venue for academicians, researchers, industries, junior and young inventors to showcase their innovative ideas not only in the teaching and learning sphere but also in other numerous disciplines of study. This competition was organised by the Special Interest Group, Public Interest Centre of Excellence (SIG PICE) UiTM Kedah Branch, Malaysia. Its main aim was to promote the production of innovative ideas among academicians, students and also the public at large.

In accordance with the theme "Reconnoitering Innovative Ideas in Post-normal Times", the development of novel ideas from the perspectives of interdisciplinary innovations is more compelling today, especially in the post-covid 19 times. Post-pandemic initiatives are the most relevant in the current world to adapt to new ways of doing things and all these surely require networking and collaboration. Rising to the occasion, iTAC 2023 has managed to attract more than 267 participations for all categories. The staggering number of submissions has proven the relevance of this competition to the academic world and beyond in urging the culture of innovating ideas.

iTAC 2023 committee would like to thank all creative participants for showcasing their innovative ideas with us. As expected in any competition, there will be those who win and those who lose. Congratulations to all the award recipients (Diamond, Gold, Silver and Bronze) for their winning entries. Those who did not make the cut this year can always improve and join us again later.

It is hoped that iTAC 2023 has been a worthy platform for all participating innovators who have shown ingenious efforts in their products and ideas. This compilation of extended abstracts published as iTAC 2023 E-Proceedings contains insights into what current researchers, both experienced and novice, find important and relevant in the post-normal times.

Best regards,

iTAC 2023 Committee
Special Interest Group, Public Interest Centre of Excellence (SIG PICE)
UiTM Kedah Branch
Malaysia

UI DESIGN REVAMP OF DEWAN FILHARMONIK PETRONAS (DFP) ONLINE PAYMENT WEB PAGES - POSITIVE OR NEGATIVE EMOTION?

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ABSTRACT

Online payment methods allow users to conduct transactions and payment. Nowadays, online payment methods are widely used for any type of business, including the sale of tickets for live performing arts. The Dewan Filharmonik Petronas (DFP) is Malaysia's first concert venue dedicated to classical music, jazz, and world music genres concerts, with tickets available for purchase by the public via their website. However, the DFP website has a problem with online payments in that when a user wants to buy an online ticket, they are directed to another website called MPO via the link www.mpo.com.my. The DFP's website only provides live performance event information, no transaction activity is available on the website. The revamping of UI design in this website was done to optimize the online transaction pages. This qualitative study is to capture the user emotion on the revamped UI design of DFP online purchase pages. Six participants with IT literacy and experience purchasing online tickets at the novice, beginner, and expert levels were interviewed for this study. The instrument to measure user emotion is Premo. It is a non-verbal self-report tool, which has 14 different emotions with hand drawn characters, seven of which are positive and the other seven are negative emotions. The interview session was done in the following manner: the researchers began by asking demographic questions, followed by open-ended questions. Then, show the participants the revamped online transactions UI design and ask them

to choose one or more emotions from the Premo hand-drawn characters based on their feelings after seeing the UI design. In conclusion, four participants chose positive emotions and two chose negative emotions. This demonstrates that the revamped website UI design is seen as a positive design.

Keywords: UI, online payment, premo, emotion, positive design

INTRODUCTION

Online payment methods are essential for various types of business. Booking and making payments online is easy for many clients, therefore it's important that every business keeps up with this technology. Online payment methods are platforms that allow sellers to receive money from buyers online rather than in person or over the phone for their transactions (Bennett, 2022). Online payment methods are widely used nowadays, including the selling of tickets for live performing arts. The Dewan Filharmonik Petronas (DFP) is Malaysia's first performance venue dedicated to classical music, jazz, and world music concerts, with tickets available for purchase online. However, the DFP website has a problem with online payments in that when a user clicks on the Buy Now button, they are directed to a website called the Malaysian Philharmonic Orchestra (MPO) only for the purpose of ticket purchasing, and the DFP's website only provides live performance event information, no transaction activity is available on the website.

Other than that, the researchers found out some of the problems with the website: there is no login button in the navigation bar for users to log in to check their profile information and purchase status; there is no search button for the user to type in what concert they want to watch; and the website is actually combined with an orchestra website, which is the Malaysian Philharmonic Orchestra (MPO).

This study was conducted to revamp the websites and UI design. Revamping involves making modifications to an existing website that affect how it looks and functions. A website's design, functionality, or usability can be revamped at any time without having to start from scratch. For example, if you have a primary one-page site that's been around for years and want to add more pages or change its layout, you can go ahead without rebuilding your entire site from scratch again (iED Team, 2023). These modifications have been made by researchers to revamp the DFP's online purchase sites specifically.

According to The Interaction Design Foundation, user interface (UI) design is the process by which designers create interfaces in software or computerized devices with a focus on aesthetics or style. Designers strive to design interfaces that are both easy to use and enjoyable for users. UI design includes graphical user interfaces as well as other forms, such as voice-controlled interfaces. Thus, this study focuses on UI design to revamp the DFP's online payment page, and the full revamp website design is built with Figma.

Next, after completing the revamp of DFP’s website, the researchers start doing user testing to capture user’s feedback based on their feeling and thoughts. Six participants with IT literacy and experience purchasing online tickets at the novice, beginner, and expert levels were interviewed for this qualitative study. The instrument to measure user emotion is Premo, it is a non-verbal self-report tool. This instrument consists of 14 emotions with drawn characters, the six participants are required to choose at least one or more emotions after they experience to see if the revamp of the online payment pages are a positive or negative design.

In conclusion, this study attempts to determine whether users have good or negative emotions about the revamped DFP website's UI, especially online payment pages. For further discussion will discuss in the next section such as Methodology, Result, Discussion and Conclusion.

METHODOLOGY

This section shows details of methodology to discuss research design, methodology and instrument of data collection. The target participants in this study consist of six; all participants are visually users with good IT literacy and experience purchasing online tickets at the novice, beginner, and expert levels. Three researchers conducted individual interviews with each participant in a separate room during the interview's two sessions. Meaning that the interviews with Participants 1 (P1), 3 (P3), and 5 (P5) were conducted in the first session, and Participants 2 (P2), 4 (P4), and 6 (P6) were interviewed in the second session.

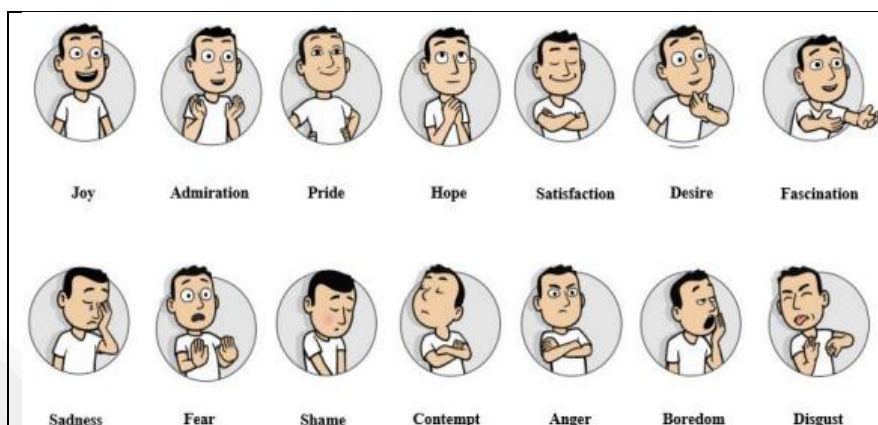


Figure 1. Premo. Source: (Laurans & Desmet, 2012).

Premo, as depicted in Figure 1 above, is the instrument tool used to measure user emotion. It is a non-verbal self-report tool, which has 14 different emotions with hand drawn characters, seven of which are positive and the other seven are negative emotions. Joy, admiration, pride,

hope, satisfaction, desire, and fascination are examples of positive emotions. Sadness, fear, shame, contempt, anger, boredom, and disgust are examples of negative emotions. Due to the fact that most people's emotions are low intensity, Premo can measure subtle and low intensity emotions instead of using verbal surveys or physical measurements. In addition, it is advantageous with flexible applications, as Premo can be used for both qualitative and quantitative research (Desmet, 2019).

The interview session was conducted as follows: the researchers asked participants about their demographics before moving on to open-ended questions and demonstrating the revamped website's user interface (UI). The next assignment required participants to select at least one, if not more, of the emotions they could feel in response to the revamped website UI design. In order to analyze, contextualize, and explain the user's feelings, the results from the interview and discussion are discussed in the following section.

RESULT AND DISCUSSION

The findings of the user testing are explained in this section. Overall, the findings show social feedback from participants, which is the social feedback that leads to a change in human users' behavior (Midden & Ham, 2008).

Figure 3 shows the revamped DFP website. As previously mentioned, all participants from various backgrounds tested the revamped DFP website, and the researchers using Premo measured their emotion.

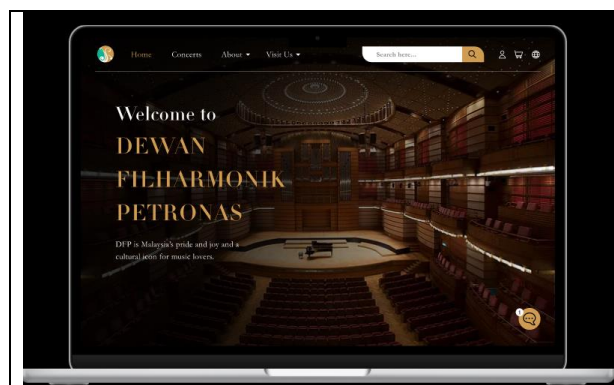


Figure 3. Revamped DFP's homepage website.

P1 believes that the overall impression of the website is elegant and premium after the user testing session, according to the feedback the researcher gathered from the participants. P1 likes the design of the Ticket Selection page and finds it to be pleasant. This participant also thinks the add-to-cart symbol is too small and the font a little challenging to read. P1 remarked

that the design is attractive and that she finds the entire process to be comfortable and easy to understand. This participant wanted the typeface to be larger and more visible, but she feels that the design met her needs.

Then Participant 2 (P2) shares her opinions on the website, saying that it has a philharmonic overall vibe and is elegant, gothic, clean, and well-designed. P2 thinks it would be better if the title were changed to gold and the date's color to white so that it is easier to read. The participant thinks the button is clear enough but the scroll to the top button is too big. However, when the participant navigates to the next page, she notices that the website previously used 3 columns as a guide, but it said The What's On title looks weird. P2 believes that the copyright text can be made smaller in the footer, the clickable email can be emphasized, and the box office icon can be removed. P2 believes that the checkout process is fairly nice, however the Purchase Summary could use more space. This participant was pleased with the ordering procedure and the overall layout of the website.

In the view of Participant 3 (P3), the overall design is really elegant and simple. P3 chooses to access more concerts by clicking the What's On icon. She likes the way the filter is made and thinks it's useful. This participant remarks on the easy-to-use online purchase ticket process, noting that she was able to see all the information that was required in the transaction summary.

Participant 4 (P4) commented that the overall design is excellent because it is very contemporary, tidy, and uncomplicated. P4 suggested that the icon for View More Concerts on the What's On section be clearer and that the caption of the thumbnail be in a larger font size to make it more noticeable. Additionally, he proposed that the calendar may be larger and that the filter buttons should remain in the same location while scrolling. Additionally, he finds that the general flow is straightforward and simple, with information that is easy to read and buttons that are evident for him to press. The ticket layout appeals to him and piques his attention.

On the other hand, Participant 5 (P5) is a novice and new user of the DFP website, but she has prior experience purchasing concert tickets on other online venues. According to P5, the genre and date filters are useful, and the selection process for tickets flows smoothly. After completing the payment procedure, she commented that the available transactions are relatively limited and that more payment options, such as e-wallets, would be preferable. Additionally, she advised renaming the "Try Again" option on the payment failure page to "Pay Again" because it made her feel like returning to the cart page rather than trying to make another payment. She was fine the remainder of the day and enjoyed the procedure as a whole. P5 felt good about it.

Regarding Participant 6 (P6), she frequently purchases tickets from the DFP website and P6 is an expert user of the DFP website. She advised showing the event as consumers typically visit the site for the concert rather than the hall image. P6 notes that there are only a few concerts each month, so she doesn't think a calendar filter with dates is necessary, but she does enjoy the genre filter. P6 remarked that the search feature is rather uncommon from the user's

standpoint. She believes it would be preferable if there was a preview audio or video or link so users could listen to or watch before learning the specifics of the show. Her expectations were met by the revamped website, and she feels good overall about the process.

Overall, two participants, P2 and P4, selected negative emotions, while P1, P3, P5, and P6 selected positive emotions. Due to the researcher's study of the most challenging aspect of making modifications to the actual website design, the revamped website has a good user interface. According to experience and research, the process of deciding on and selecting a product, particularly product design, is directly related to psychological characteristics of buyers, especially their personality traits (Bakhshizade et al., 2016), and personality traits affect people's long-term interests and behaviors (Dunn et al., 2009).

CONCLUSION

Finally, in response to user feedback, the researchers will improve the design to improve the user experience. The researcher decides to make the headline more prominent by choosing a higher font size to grab the user's attention. Additionally, the researchers fix the scrolling screen's filter button so that consumers can use it anytime they scroll down to the concert page. The functionality of the calendar filter will also be changed to make it more sensible. The researchers will move the title slightly upward and remove some of the buttons to make it appear less odd. Overall, the revamped website UI design achieved this study objective.

REFERENCES

- Bakhshizade, K., Khalili Roudi, M. and Rezaiean Akbarzadeh, S. (2016). "Impact of Personality Traits and Product Involvement on Clothing Impulsive Buying". *Journal of Business Management*, 8(1): 29-46
- Bennett, P. (2022, January 28). 11 Best Online Payment Methods for Businesses. *HubSpot*. Retrieved May 11, 2023, from <https://blog.hubspot.com/marketing/online-payment-methods>
- Desmet, P.M.A. (2019). *PrEmo card set: Male version*. Delft, Delft University of Technology. ISBN: 978-94-6384-076-7
- Dunn, G., Wiersema, J., Ham, J. R. C., & Aroyo, L. M. (2009). Evaluating Interface Variants on Personality Acquisition for Recommender Systems. In G. J. Houben, G. McCalla, F. Pianesi, & M. Zancanaro (Eds.), *17th International Conference, UMAP 2009, formerly UM and AH, Trento, Italy, June 22-26, 2009* (pp. 259-270). (Lecture Notes in Computer Science; Vol. 5535). Springer. https://doi.org/10.1007/978-3-642-02247-0_25

iED Team. (2023). Revamp vs Redesign: Which Does Your Business Need? Institute of Entrepreneurship Development. <https://ied.eu/blog/entrepreneurship-blog/revamp-vs-redesign-which-does-your-business-need/#:~:text=What%20is%20a%20Revamp%3F,images%2C%20fonts%2C%20and%20layout>.

Laurans, Gaël & Desmet, Pieter. (2012). Introducing PrEmo2 New Directions for the Non-Verbal Measurement of Emotion in Design. *8th International Conference on Design and Emotion: Out of Control - Proceedings*.

Midden, C., & Ham, J. (2008, April). The Persuasive Effects of Positive and Negative Social Feedback from an Embodied Agent on Energy Conservation Behavior. In *Proceedings of the AISB 2008 symposium on persuasive technology* (Vol. 3, pp. 9-13).

What is User Interface (UI) Design? (2023). *The Interaction Design Foundation*. <https://www.interaction-design.org/literature/topics/ui-design>



e-proceedings

International Teaching Aid
Competition 2023
Reconnoitering Innovative Ideas in Postnormal Times

iTAC **2023**

e ISBN 978-967-2948-51-3



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