Content Value Analysis of Taiwan Social Issues Advertising Design which Using AR

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Introduction

Taiwan, which is located in the center of the East ern Asia island arc, has also been affected by this event. Because of its unique island terrain, climate, and geographical environment, Taiwan boasts high biological diversity and a high proportion of endemic species. However, the loss and destruction of habitats, hunting pressure, and the introduction of alien species have drastically reduced the population of wild animals in Taiwan, even resulting in some species becoming endangered. The rapid deterioration of Taiwan’s ecosystem necessitates the promotion of the prevention of extinction prevention and ecological conservation programs in a timely manner, and everyone’s combined effort is required to restore the global ecosystem.

Accordingly, this study focused on the social issue of animal conservation and applied the ukiyo-e illustration style in poster design through the use of AR. The posters are expected to increase public awareness of animal conservation in Taiwan among Japanophiles. The objectives of this study are to (1) understand the Japanese ukiyo-e art style and explore innovative design in AR; (2) discuss the design and image presentation techniques used in social and education posters and conduct case analysis; (3) explore the presentation of creative thinking, images, and symbols in illustration and analyze existing illustration and design pieces; and (4) develop AR poster designs that are based on animal conservation by applying the ukiyo-e style in accordance with the analysis results.

Results and discussion pertaining to design creation

Design sampling

The present study selected the endangered species Rhacophorus arvalis as the subject for poster design. R. arvalis is a species that is endemic to Taiwan, and it is mainly found in low-altitude agricultural bamboo forests, secondary-growth forests, and orchards in Yunlin, Chiayi, and Tainan. In recent years, the aforementioned regions have been replanted to grow pineapples and oranges, which has reduced the habitat of the species and led to its dispersion. This threatens the ecological development of R. arvalis and results in a declining population, thereby pushing the species closer to extinction (Chen & Liu, 2017).

Design process for creating graphic symbols and augmented reality

In this stage, the authors adopted the ukiyo-e style in the illustration design process to present the characteristics of R. arvalis, including its living environment, food, and habits. The four principles of reverse thinking (i.e., anti-structure, anti-perspective, anti-proportion, and anti-order design thinking) were integrated and used for the coding of graphic symbols to highlight how the species is influenced by the planting of pineapples and the changes to its original habitat. Accordingly, the illustrations depicted the overturning of the natural order.

For AR design, the present study divided the AR experience into emotional and rational experiences. The emotional experience presents the environmental habitat of the R. arvalis before its destruction. The AR design presented a rainy background and highlighted that R. arvalis often called after a rainy night. Users may click on the poster to experience the species’ habitat and the wonderful melodies that it created by calling. The rational experience consisted of a 15-s auditory introduction of the species. Additionally, users were asked three questions to increase user engagement and deepen their understanding of the species. The AR design provided users with an immersive experience and used multisensory stimulation, including visual, tactile, and auditory stimulation, to strengthen users’ understanding of the crucial role of animal conservation for endangered species. The designed AR poster is presented in Figure 1.

Conclusions

On the basis of the results of the case analyses, the present study adopted reverse thinking to develop the content of the designed image. The profiling formation method was employed for the presentation of graphic symbols. The designed AR poster employs the ukiyo-e style to convey the message of “the disappearance of animals,” and it uses a brief auditory introduction and question-and-answer activities to enhance the narrative of the social issue, attract the attention of the young generation, and achieve the design objective of creating an interactive experience.

AR technology was applied to the poster design process not as a complete replacement of the conventional poster but as a means of enhancing the promotional effect of conventional posters through the creation of an immersive experience. This application employs new technology to enhance the liveliness of printed posters by including AR elements.

In summary, the present study included AR elements into the design of an animal conservation poster to simulate a multisensory experience (i.e., visual, tactile, and auditory experiences), thereby “immersing” users in the social issue through virtual and real interactions. Consequently, the poster enhanced the value and uniqueness of the reading content and attracts consumers to actively engage with the poster, thereby successfully promoting the social issue.

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