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Evaluating the impact of a chatbot on the usability, user satisfaction, and user experience of a gambling-help website

What this research is about

People seeking help for their own or someone else's gambling-related problems often search for information on gambling help websites. In Australia, the government of New South Wales (NSW) funds and administers the NSW Gambling Help website (now the NSW GambleAware website) which offers gambling-help resources. But gambling help websites contain a lot of information, which can make them hard to navigate. Website usability refers to how easy a user can navigate a website without formal training.

Chatbots are software programmes that interpret and respond to user statements or questions. Chatbots can help increase website usability by guiding users to the appropriate website content. This study evaluated how a chatbot impacts the usability, user satisfaction, and user experience of the NSW GambleAware website.

What the researchers did

The researchers recruited participants via social media platforms and through word of mouth. Participants had to be Australian residents who were 18 years or older. They had to have access to a computer and be fluent in English. But they did not need to have participated in any gambling activity nor have used the NSW GambleAware website in the past.

The researchers developed a chatbot using the IBM Watson platform. The researchers reviewed the NSW GambleAware website to develop the chatbot's responses to potential user questions.

Participants were randomly assigned into one of two groups. One group was given access to the NSW GambleAware website with chatbot access. The other group only had access to the website (no chatbot).

What you need to know

Gambling help websites contain a lot of information, which can make it hard to navigate. One way to increase website usability is by using chatbots. The purpose of this study was to evaluate how a chatbot impacts the usability, user satisfaction, and user experience of the NSW GambleAware website. The researchers created a chatbot for the website and recruited 60 adults from Australia to participate in the study. About half of the participants were given access to the website with the chatbot, and the other half were given access only to the website (no chatbot). Participants with chatbot access rated the website's usability higher than the website-only group. Those with chatbot access had higher user satisfaction. This group also had an easier time completing their tasks of finding website information but there was no difference between the groups on user experience. When compared to other websites, the website with the chatbot was rated more highly based on usability, system usefulness, information quality, and credibility. The layout, readability of responses, and look and feel of the chatbot were areas for improvement.

Participants completed a survey that asked about their socio-demographic characteristics. The survey also measured the following:

- (1) System usability (System Usability Scale).
- (2) User satisfaction (Post-Study System Usability Questionnaire).
- (3) User experience (Standardized User Percentile Rank Questionnaire).

(4) Ease of completing specific tasks (Single Ease Question). Participants with chatbot access used the chatbot to complete five tasks that asked them to find information on the website. Those with website-only access navigated the website to find the information.

(5) Participants who had access to the chatbot were asked to rank the usability of different aspects of the chatbot (e.g., ease of navigation, accuracy of information provided, and layout of the chatbot).

(6) Participants with access to the chatbot were asked to provide additional feedback (e.g., what they liked about the chatbot and how it could be improved).

What the researchers found

Of the 201 people who clicked on the link to the survey, 150 completed it. After removing duplicate or fraudulent bot responses, the responses from 60 participants (65% women), aged 18 to 85 years, were included in the analysis. About half of the participants (53%) were given access to the chatbot, and the other half (47%) had access to the website only.

Participants with chatbot access rated the website's usability higher than the website-only group. Compared to the website-only group, those with chatbot access also had higher user satisfaction and an easier time completing their tasks but showed no difference on user experience.

Compared to other websites, participants with chatbot access rated the NSW GambleAware website more highly based on usability, system usefulness, information quality, and credibility. They also rated the chatbot itself as being easy to use, able to help them find information, and able to present valuable information. However, the layout, readability of responses, and look and feel of the chatbot were areas for further improvement. Some participants felt that the usability of the chatbot could be improved. This could be done by providing instructions or examples on how to use the chatbot.

How you can use this research

Administrators of gambling help websites could consider using chatbots to enhance access to website content and provide people with further resources.

About the researchers

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