

What Are People Asking About Alcohol? Examining Interactions with an AI-driven Chatbot

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Introduction:

The Alcohol and Drug Foundation (ADF) developed an artificial intelligence-based chatbot, named dib, in 2025. dib was designed to answer users' free text queries on drugs and alcohol in lay language, based on evidence-based information collated by the ADF. In 2025, dib had 1,781 conversations related to alcohol with Australia-based users. This project aimed to explore Australian users' interactions with dib, using a mix of dib's automatic topic classification and in-depth analyses of qualitative conversation data. Specifically, this project aimed to: 1) Assess the accuracy of dib's automated classification against manual coding, and; 2) To identify alcohol-related information needs among Australian users by reviewing dib's classification results.

Method:

To assess the accuracy of dib's Large Language Model-based (LLM-based) automatic topic classification, two researchers independently coded 321 randomly selected conversation turns (from 200 conversations) by assigning a topic and subtopic based on its content. Agreement between the chatbot-assigned topic/subtopic names and researcher coded topics was assessed using accuracy, confusion matrices, Cohen's kappa and F1-scores. Key themes from conversations were examined using a mix of quantitative and qualitative methods.

Results: Cohen's kappa was 0.81 ($p < 0.01$) for topics and 0.74 ($p < 0.01$) for subtopics. At the topic level, dib demonstrated strong classification performance (macro F1-score= 0.860, weighted F1-score= 0.856). The most common topics users were interested in were general information (45.8%), treatment and support (14.3%) and legal issues (10.6%). Interactions spanned from straightforward queries for information to in-depth, emotional conversations about alcohol problems and harms.

Conclusions:

Australian users were willing to engage with an AI-driven chatbot for a wide range of reasons related to alcohol. Our research identified that automatic classification of conversation topics was generally reliable. These tools may be a useful way to engage with people seeking information and support related to alcohol while maintaining anonymity and reducing stigma.

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