

### Can chatbots promote pro-environmental behaviour spillover among tourists?

Tourists at nature-based destinations, like the Gili Islands in Indonesia, often adopt pro-environmental behaviours due to sustainable transport regulations. However, sustaining these behaviours in daily life is challenging. Recent research highlights the potential of chatbots to support this transition.

This study by [Gilang Majid](#), [Iis Tussyadiah](#), and [Jason Chen](#) explores how chatbots can act as nudging tools to facilitate this behavior spillover.

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By developing a scale to assess chatbots' effectiveness in encouraging ongoing sustainable practices, the research identifies key factors influencing technology adoption and behaviour change.

This study advances the understanding of AI's role in pro-social nudging, offering valuable insights for technology developers and policymakers in enhancing environmental sustainability through innovative AI applications.

# ACADEMIC WEEKLY DIGEST



## About Dr Gilang Majid

The corresponding author is a recent PhD graduate from Surrey Hospitality and Tourism Management. His research interests cover technology and sustainability, specifically on how artificial intelligence

can be used to nudge people to behave pro-environmentally. His research has been funded by the Ministry of Higher Education, Research and Technology from the Republic of Indonesia.

## INTRODUCING THE AI CHATBOTS FOR PRO-SOCIAL NUDGING (AI-CPSN) SCALE

By Dr Gilang Majid, Prof Iis Tussyadiah, Dr Jason Chen

Through a combination of deductive and inductive scale development procedures, the AI-CPSN scale validates a theoretical model proposed in the authors' previous [study](#). This scale explores how AI-driven chatbots can promote pro-social behaviours, such as sustainable travel practices, in developing countries. Traditional technology acceptance theories are inadequate for this context, highlighting the need to understand factors like performance expectancy, timing, credibility, and privacy in chatbot adoption.

Chatbots should provide useful, responsive, and timely nudges to influence pro-environmental behaviour, especially if initiated before a trip. However, personalisation negatively affects usage intentions, challenging previous research. Key predictors of adoption include credibility and privacy control, not personalisation or effort expectancy. The study also finds that tourists' intentions to use sustainable transport are linked to their engagement with chatbots, though decisions are influenced by factors like efficiency and government support.

Despite having access to eco-friendly transport options, perceived inefficiency or insufficient government incentives remain barriers. The findings suggest a nuanced approach to leveraging AI for sustainability in tourism. This study extends [the AI4GoodTourism framework](#), which suggests that AI innovations in tourism with a high level of sustainability focus can enhance and consolidate the incremental positive contributions from a large number of tourists.

### Publication:

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