

Article: DolphinGemma: Google AI model understands dolphin chatter

By Ryan Daws | AI News - April 14, 2025

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AI SUMMARY

Google has introduced DolphinGemma, an AI model designed to decipher dolphin communication, with hopes of facilitating interspecies dialogue. Developed in collaboration with the Georgia Institute of Technology and the Wild Dolphin Project, the model analyzes dolphin sounds to uncover patterns and meanings and aims to improve understanding of cetacean communication.

KEY POINTS:

Introduction to DolphinGemma

- Google has launched an AI model named DolphinGemma aimed at interpreting dolphin communication, announced on National Dolphin Day (April 14).
- The project collaborates with Georgia Institute of Technology and utilizes data from the Wild Dolphin Project (WDP).

Importance of Dolphin Communication

- Dolphins use complex vocalizations involving clicks, whistles, and pulses, which have intrigued scientists for years.
- The study focuses on vocalizations like signature whistles, burst-pulse 'squawks', and click 'buzzes'. These sounds indicate unique identifiers, aggression, and courtship, respectively.

Development of DolphinGemma

- DolphinGemma is trained on a vast dataset from WDP's underwater research, operational since 1985.
- It is designed to identify patterns in natural dolphin sounds and generate new dolphin-like audio sequences, advancing the study of cetacean communication.
- The model comprises approximately 400 million parameters, making it efficient enough for usage on Google Pixel devices.

CHAT System for Two-Way Interaction

- A concurrent project, the CHAT (Cetacean Hearing Augmentation Telemetry) system, aims to create a simplified shared vocabulary for dolphin interaction.
- This system employs synthetic whistles to communicate with dolphins, linking specific sounds to objects of interest.

Role of Google Pixel

- Google Pixel smartphones are integral for processing dolphin audio data in real-time during field studies.
- The CHAT system utilizes smartphones for sound detection and response, reducing reliance on large, custom-built equipment.

Future Implications and Accessibility

- Google plans to release DolphinGemma as an open model to aid researchers globally in analyzing acoustic data from various cetacean species.
- Emphasizing collaboration, the model aims to improve the understanding of dolphin communication, marking a shift from passive observation to active analysis.