

**CONCOURS EXTERNE
POUR L'ACCÈS AU GRADE D'INSPECTEUR DES FINANCES PUBLIQUES
AFFECTÉ AU TRAITEMENT DE L'INFORMATION EN QUALITÉ D'ANALYSTE**

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ÉPREUVE ÉCRITE D'ADMISSION N° 3

Durée : 1 heure 30 - Coefficient : 1

**Version anglaise à partir d'un texte issu
d'une revue ou d'une documentation informatique**

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Il devra obligatoirement se conformer aux directives données.

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Les candidates et les candidats peuvent avoir à leur disposition sur la table de concours le matériel d'écriture, une règle, un correcteur, des surligneurs.

AI might enable us to talk to animals soon. Here's how.

As large language models become experts at human speech, they're now shifting their focus to animal communication.

Imagine listening to chirping birds and being able to pull out your phone and decipher what they're saying to each other. [...] Think that sounds farfetched? Think again : it's actually part of the tech-enabled future the Earth Species Project (ESP) wants to build.

The ESP is a nonprofit founded by Mozilla Labs cofounder, Aza Raskin, and Britt Selvitelle, a member of the Twitter founding team, and it's leading the charge towards decoding non-human communication using artificial intelligence (AI).

[...] [T]he benefits of understanding animals go way beyond listening into a conversation between your dog and its canine buddies when they're out on a walk.

In fact, the ability to decipher animal communication has direct implications for conservation and the protection of our planet.

Decoding animal communication could lead to the development of tools that aid in conservation research with non-invasive methods. Scientists could gain the ability to understand previously undiscovered characteristics of how animals within a species communicate, but also how they hunt, eat, develop relationships with each other, and how they see and process the world around them.

[...]

Through machine learning techniques, we could gain the power to decipher collected bioacoustic data and translate it into natural human languages. [...]

But as noble and innovative as the task is, it isn't easy.

Much of this research will be based on large language models, much like those used to power Google Bard and ChatGPT. These generative AI tools have a strong command over human language, as they can understand and generate responses in different languages, with a variety of styles and context, thanks to machine learning.

Large language models are exposed to massive amounts of data during many stages of training. [...]

Essentially, they are given vast amounts of text and data from different sources [...].

They're then exposed to human trainers that stage conversations with them to help the LLM continue to learn different concepts and even understand context [...].

[...]

The biggest challenge the ESP faces in its efforts to decipher animal communication is the lack of foundational data. There is no written animal language available to train a model. What's more, the varying communication formats between species poses an additional challenge.

The ESP is gathering data from wild and captive animals around the world. Researchers are recording video and sounds and adding annotations from biologists for context. These data points are the first steps towards creating foundation models for a wide range of animal species.

The IoT is also making it easier to increase the dataset of animal communication styles. The large variety of inexpensive cameras, recording devices and biologists means scientists can gather, prepare, and analyze data from afar. This data from myriad sources can then be pulled together and analyzed with AI tools to decipher the meaning of different behaviors and communication forms.

[...]

ZDNet, May 1, 2023