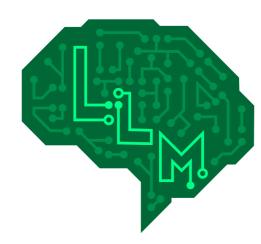
# P01

We are developing an LLM that is small, strong in Japanese language, and customizable

## Large language model "tsuzumi"

## IOWN Pick Up

NTT version Large Language Models



## Background

LLMs have attracted attention for their advanced and flexible language processing capabilities, but the operational cost of running models is a challenge. The huge amount of computational resources required to train models also makes customization difficult.

## Summary

We are developing a small, low-power LLM. It excels at understanding the Japanese language through the use of large volumes of high-quality data in Japanese. Flexible customization is possible by learning additional data specific to particular industries, organizations, or individuals.

#### Feature 1: Feature 2: Small and good at Japanese Flexible customization By "specializing" a general-purpose LLM for Achieved top-level accuracy in Japanese (\*) LLM with a version of our model with 7 billion customers, it can be used as a customized LLM. parameters by applying ingenuity to the Tuning training data Domain/Organizational Over a trillion texts Adapter Japanese/English corpus Data Accumulation of many years LLM Retrieval of research and development **Tuning data** and newly created data

(\*) Evaluated with Rakuda, Japanese Vicuna QA, JGLUE

#### Features

- We achieved top-level accuracy in Japanese task evaluation with a version of our model with 7 billion parameters
- We developed a unique model using data and knowledge accumulated through more than 40 years of natural language processing research at NTT
- We use adapters that can be trained with additional knowledge, be specialized to specific industries and organizations, and can flexibly customize the LLM

## | Future\_benefits

Our LLM is specialized for business domains and users, to achieve a "sustainable world" through collaboration and mutual growth between AI and humans.

## **Exhibiting Company**

NIPPON TELEGRAPH AND TELEPHONE CORPORATION

### Contact

rdforum-exhibition@ml.ntt.com