Package 'LLMTranslate'

September 5, 2025

Title 'shiny' App for TRAPD/ISPOR Survey Translation with LLMs

Version 0.1.3

Description A 'shiny' application to automate forward and back survey translation
with optional reconciliation using large language models (LLMs). It follows
the TRAPD (Translation, Review, Adjudication, Pretesting, Documentation)
framework and ISPOR (International Society for Pharmacoeconomics and
Outcomes Research) recommendations. See Harkness et al. (2010)
<doi:10.1002/9780470609927.ch7> and Wild et al. (2005)
<doi:10.1111/j.1524-4733.2005.04054.x>.

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Encoding UTF-8

RoxygenNote 7.3.2

Depends R (>= 4.1)

Imports shiny

Suggests DT, readxl, writexl, openxlsx, httr2, jsonlite, glue, later,
testthat (>= 3.0.0)

Config/testthat/edition 3

NeedsCompilation no

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Description

LLMTranslate wraps a Shiny application that automates forward translation, optional blind back-translation, and reconciliation (TRAPD/ISPOR workflow) using large language models (OpenAI GPT-4o / GPT-4.1 / o-series; Google Gemini).

Details

The main exported function is `run_app()`, which launches the UI. All other functions/objects are internal but documented below for clarity.

Launching the app

`LLMTranslate::run_app()`

Pass arguments through to `shiny::runApp()`, e.g. `host`, `port`, `launch.browser`.

UI overview (tabs and key inputs/outputs)

- **API Keys & Models**:
    - `openai_key`, `gemini_key`: read from environment if empty.
    - `forward_model`, `back_model`, `recon_model`: chosen from `MODEL_SPEC`.
    - `forward_temp`, `back_temp`, `recon_temp`: temperature sliders (ignored for o1/o3).
    - `reasoning_effort`: only for OpenAI o-series reasoning models.
- **Translation**:
    - `lang_from`, `lang_to`
    - `file`: Excel upload (.xlsx/.xls)
    - `orig_col`: original text column selector
    - `forward_prompt`, `back_prompt`, `recon_prompt`
    - `do_back`, `do_recon`, `debug`
    - Buttons: `run`, `stop`; download button appears after completion
    - Outputs: `table` (DT), `debug_log` (verbatim)
- **Help**: instructions, troubleshooting.
- **Citation**: citation text & BibTeX.
- **About**: brief description and credits.

Citation

See the Citation tab or `citation("LLMTranslate")`. Also cite specific LLMs and TRAPD/ISPOR frameworks.

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See Also

[run_app()](run_app())

Examples

```
if (interactive()) {
  LLMTranslate::run_app()
}
```

---

run_app   *Launch the LLM Survey Translator shiny app*

Description

Launch the LLM Survey Translator shiny app

Usage

```
run_app(...)
```

Arguments

...   Passed to shiny::runApp.

Value

No return value, called for side effects (launches a shiny app).

Examples

```
if (interactive()) {
  run_app()
}
```

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