

# Package ‘harmonydata’

October 19, 2023

**Type** Package

**Title** R Library for 'Harmony'

**Version** 0.1.1

**Description** 'Harmony' is a tool using AI which allows you to compare items from questionnaires and identify similar content. You can try 'Harmony' at <https://harmonydata.ac.uk/app/> and you can read our blog at <https://harmonydata.ac.uk/blog/> or at <https://fastdatascience.com/how-does-harmony-work/>. Documentation at <https://harmonydata.ac.uk/harmony-r-released/>.

**URL** <https://harmonydata.ac.uk>

**License** MIT + file LICENSE

**Encoding** UTF-8

**Imports** httr, uuid, base64enc, jsonlite, utils, tools

**RoxygenNote** 7.2.3

**NeedsCompilation** no

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**Repository** CRAN

**Date/Publication** 2023-10-19 15:40:02 UTC

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get\_example\_instruments

*Retrieve Example Instruments from 'Harmony Data API'*

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### **Description**

This function retrieves example instruments from the 'Harmony Data API' using an HTTP POST request.

### **Usage**

```
get_example_instruments()
```

### **Value**

A list representing example instruments retrieved from the 'Harmony Data API'.

### **Author(s)**

Ulster University [cph]

### **Examples**

```
# Load required libraries (httr) and call the function
require(httr)
instruments <- get_example_instruments()

# Print the retrieved JSON content
print(instruments)
```

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load\_instruments\_from\_file

*Load Instruments from File*

---

### **Description**

This function loads instruments from a file specified by the path parameter and sends the file content to an API for further processing. It also accepts a URL leading to a file.

### **Usage**

```
load_instruments_from_file(path)
```

**Arguments**

path                    The path to the file to load instruments from.

**Value**

A list of instruments returned from the API.

**Author(s)**

Ulster University [cph]

**Examples**

```
# Load instruments from a PDF file
pdf_file <- "https://www.apa.org/depression-guideline/patient-health-questionnaire.pdf"
response <- load_instruments_from_file(pdf_file)
```

---

match\_instruments            *Match Instruments Function*

---

**Description**

This function takes a list of instruments, converts it to a format acceptable by the database, and matches the instruments using the 'Harmony Data API'. It returns the matched instruments.

**Usage**

```
match_instruments(instruments)
```

**Arguments**

instruments            A list of instruments to be matched.

**Value**

A list of matched instruments returned from the 'Harmony Data API'.

**Author(s)**

Ulster University [cph]

**References**

For more information about the 'Harmony Data API', visit: <https://api.harmonydata.org/docs>

**Examples**

```
instruments_list <- list(
  list(
    instrument_id = "id1",
    instrument_name = "Instrument A",
    questions = list(
      list(
        question_text = "How old are you?",
        topics = c("Age", "Demographics"),
        source_page = "https://example.com/instrumentA"
      ),
      list(
        question_text = "What is your gender?",
        topics = c("Gender", "Demographics"),
        source_page = "https://example.com/instrumentA"
      )
    )
  ),
  list(
    instrument_id = "id2",
    instrument_name = "Instrument B",
    questions = list(
      list(
        question_text = "Do you smoke?",
        topics = c("Smoking", "Health"),
        source_page = "https://example.com/instrumentB"
      )
    )
  )
)
matched_instruments <- match_instruments(instruments_list)
```

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