

Package ‘theorytools’

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Type Package

Title FAIR Theory Construction

Version 0.1.0

Description An integrated suite of tools for creating, maintaining, and reusing FAIR (Findable, Accessible, Interoperable, Reusable) theories. Designed to support transparent and collaborative theory development, the package enables users to formalize theories, track changes with version control, assess pre-empirical coherence, and derive testable hypotheses. Aligning with open science principles and workflows, ‘theorytools’ facilitates the systematic improvement of theoretical frameworks and enhances their discoverability and usability.

License GPL (>= 3)

Encoding UTF-8

URL <https://github.com/cjvanlissa/theorytools>

RoxygenNote 7.3.2

Imports worcs (>= 0.1.16), gert, gh, cli, jsonlite

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usethis, fs

VignetteBuilder knitr

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Contents

<code>add_readme_fair_theory</code>	2
<code>add_theory_file</code>	2
<code>add_zenodo_json</code>	3
<code>create_fair_theory</code>	4

Index

6

`add_readme_fair_theory`

Add Readme File

Description

Writes a README file to a specific path.

Usage

```
add_readme_fair_theory(path, title, ...)
```

Arguments

<code>path</code>	Character, indicating the directory in which to create the FAIR theory.
<code>title</code>	Character, indicating the theory title. Default: NULL
<code>...</code>	Additional arguments passed to other functions.

Value

Invisibly returns a logical value, indicating whether the function was successful or not.

Examples

```
add_readme_fair_theory(path = tempdir(), title = "My Theory")
```

`add_theory_file`

Add Theory File

Description

Writes a theory file to a specific path.

Usage

```
add_theory_file(path, theory_file = "theory.txt")
```

Arguments

path	Character, indicating the directory in which to create the FAIR theory.
theory_file	Character, referring to an existing theory file to be copied, or a new theory file to be created. Default NULL does nothing.

Value

Invisibly returns a logical value, indicating whether the function was successful or not.

Examples

```
add_theory_file(path = tempdir(), theory_file = "theory.txt")
```

add_zenodo_json *Add 'Zenodo' JSON File*

Description

Writes a '.zenodo.json' file to the specified path.

Writes a README file to a specific path.

Usage

```
add_zenodo_json(path, title, upload_type, keywords)
```

```
add_zenodo_json_theory(path, title, keywords)
```

Arguments

path	Character, indicating the directory in which to create the FAIR theory.
title	Character, indicating the theory title. Default: NULL
upload_type	Character, indicating the upload type.
keywords	Character vector of keywords.

Value

Invisibly returns a logical value, indicating whether the function was successful or not.

See Also

[read_json](#)

Examples

```
add_zendodo_json(path = tempdir(), title = "Theory Title",
                  upload_type = "software", keywords = "R")
add_zendodo_json_theory(path = tempdir(), title = "My Theory",
                        keywords = "secondkeyword")
add_zendodo_json_theory(path = tempdir(), title = "My Theory",
                        keywords = c("secondkeyword", "thirdkeyword"))
```

create_fair_theory *Create FAIR Theory Repository*

Description

Partly automates the process of creating a FAIR theory repository, see Details.

Usage

```
create_fair_theory(
  path,
  title = NULL,
  theory_file = NULL,
  remote_repo = NULL,
  add_license = "cc0",
  ...
)
```

Arguments

path	Character, indicating the directory in which to create the FAIR theory.
title	Character, indicating the theory title. Default: NULL
theory_file	Character, referring to an existing theory file to be copied, or a new theory file to be created. Default NULL does nothing.
remote_repo	Name of a 'GitHub' repository that exists or should be created on the current authenticated user's account, see gh_whoami , Default: NULL
add_license	PARAM_DESCRIPTION, Default: 'cc0'
...	Additional arguments passed to other functions.

Details

The following steps are executed sequentially:

1. Create a project folder at path
2. Initialize a local 'Git' repository at path
3. If `remote_repo` refers to a user's existing 'GitHub' repository, add it as remote to the local 'Git' repository. Otherwise, create a new 'GitHub' repository by that name and add it as remote.

4. Add theory file. If theory_file refers to an existing file, copy it to path. If theory_file refers to a new file, create it in path.
 5. Add the license named by add_license
 6. Add a `README.md` file
 7. Add 'Zenodo' metadata so that it recognizes the repository as a FAIR theory
 8. If it is possible to push to the remote repository, use `git_update` to push the repository to 'GitHub'

Value

Invisibly returns a logical value, indicating whether the function was successful or not.

See Also

```
git_repo add_license_file, git_update
```

Examples

```

# Create a theory with no remote repository (for safe testing)
theory_dir <- file.path(tempdir(), "theory")
create_fair_theory(path = theory_dir,
                    title = "This is My Theory",
                    theory_file = "theory.txt",
                    remote_repo = NULL,
                    add_license = "cc0")

# Create a theory with a remote repository
## Not run:
theory_dir <- file.path(tempdir(), "theory_github")
out <- create_fair_theory(path = theory_dir,
                           title = "This is My GitHub Theory",
                           theory_file = "theory.txt",
                           remote_repo = "delete_test",
                           add_license = "ccby")

## End(Not run)

```

Index

add_license_file, 5
add_readme_fair_theory, 2
add_theory_file, 2
add_zenodo_json, 3
add_zenodo_json_theory
 (add_zenodo_json), 3

create_fair_theory, 4

gh_whoami, 4
git_repo, 5
git_update, 5

read_json, 3