Package: brainwritR (via r-universe)

November 3, 2026

Title Resilient Classroom Brainwriting with Shiny

Version 0.6.0

Description Run a self-hosted classroom adaptation of 6-3-5 brainwriting. Rotating topics, persistent drafts, participant reconnection, and a database-authoritative round clock support small groups using smartphones. Includes a multilingual Shiny application, pure rotation helpers, three device modes, portable session settings, descriptive text analysis, plenum weighting of contributions, session administration, and tabular and PDF report exports for facilitated debriefing.

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URL https://github.com/CTTIR/brainwritR, https://cttir.github.io/brainwritR/

BugReports https://github.com/CTTIR/brainwritR/issues

Depends R (>= 4.4.0)

Imports shiny, bslib, DBI, RSQLite, shinyjs, qrcode, yaml, graphics, stats, utils, ggplot2, patchwork, ggraph, igraph, ggwordcloud, stringi, stopwords, openxlsx, rlang, withr, openssl, fontawesome

Suggests testthat (>= 3.0.0), shinytest2, chromote, knitr, rmarkdown, pdftools, pkgload

VignetteBuilder knitr

Config/testthat/edition 3

Config/Needs/website CTTIR/themakR

Encoding UTF-8

Language en-US

Roxygen list(markdown = TRUE)

RoxygenNote 8.0.0

Config/pak/sysreqs cmake libfontconfig1-dev libfreetype6-dev libglpk-dev make libicu-dev libjpeg-dev libpng-dev libuv1-dev libxml2-dev libssl-dev zlib1g-dev

Repository https://cttir.r-universe.dev

Date/Publication 2026-11-03 12:27:27 UTC

RemoteUrl https://github.com/CTTIR/brainwritR

RemoteRef HEAD

RemoteSha 0dd3baeadc89c929643e992cfcf9207252efc33b

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`brainwritR-package` *brainwritR: resilient classroom brainwriting*

Description

A single-process, SQLite-backed multilingual Shiny application for facilitated topic rotation. See `run_app()` and the classroom guide.

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See Also

Useful links:

- https://github.com/CTTIR/brainwritR
- https://cttir.github.io/brainwritR/
- Report bugs at https://github.com/CTTIR/brainwritR/issues

run_app *Run the classroom brainwriting application*

Description

Starts one multilingual Shiny application backed by SQLite. Open `base_url` for participants and append `/?mod=1` for the moderator. Configuration is resolved at invocation, never at package load time.

Usage

```
run_app(
  db_path = Sys.getenv("DB_PATH", "data/brainwriting.sqlite"),
  mod_pin = Sys.getenv("MOD_PIN", "635"),
  base_url = Sys.getenv("BASE_URL", "http://localhost:3838"),
  port = Sys.getenv("PORT", "3838"),
  host = "127.0.0.1",
  poll_ms = 2500
)
```

Arguments

`db_path`	Main SQLite file path. Defaults to `DB_PATH`, then `"data/brainwriting.sqlite"`.
`mod_pin`	Moderator PIN. Defaults to `MOD_PIN`, then `"635"`. The demonstration PIN is accepted only with a loopback host and URL.
`base_url`	Public participant URL used in the QR code. Defaults to `BASE_URL`, then `"http://localhost:3838"`. Must not contain credentials, a fragment, or the reserved query parameters `s`, `mod`, and `view`.
`port`	Listening port. Defaults to `PORT`, then `3838`.
`host`	Listening address, default `"127.0.0.1"`. Set `"0.0.0.0"` explicitly to accept network connections, with a private moderator PIN.
`poll_ms`	Database polling interval in milliseconds, default `2500`.

Details

The main database holds the standard session behind `base_url` and the catalog of all further sessions. Each further session is a separate SQLite file in a `sessions` folder next to the main database, with its own address (`?s=<code>`) and QR code. Moderators create, open, restart, archive and delete sessions in the overview at `?mod=1&view=sessions`.

Use exactly one R process per data folder. No replicas or horizontal scaling are supported. A round advances on the next connected client's poll; with no clients connected it advances when someone reconnects. Moderator logins are kept in server memory, so a restart asks for the PIN again.

Value

Invisibly, the value returned by `shiny::runApp()` when the app stops.

Examples

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

`sheet_for` *Sheet assigned to a participant within a group*

Description

Sheet counts are frozen at session start. Modulo mapping permits several participants to contribute to the same sheet in one round without replacing one another's entries. A smaller arriving group can leave sheets untouched.

Usage

```
sheet_for(idx, n_sheets)
```

Arguments

`idx`	Positive integer within-group index.
`n_sheets`	Positive integer number of sheets for the topic.

Value

A numeric vector of one-based sheet indices.

Examples

```
sheet_for(1:6, 5)
```

`topic_for` *Topic assigned to a group in a round*

Description

Over `n_groups` consecutive rounds, each group visits every topic exactly once. In each round the groups cover all topics. Arguments recycle using ordinary R arithmetic; group and round indices are one-based.

Usage

```
topic_for(grp, round, n_groups)
```

Arguments

grp	Positive integer group index, at most n_groups.
round	Positive integer round index.
n_groups	Integer number of groups (2 to 6).

Value

A numeric vector of one-based topic indices.

Examples

```
topic_for(1:3, 2, 3)
topic_for(1, 1:3, 3)
```

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