Tutorial for the pssr R package

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This document provides a brief tutorial for the pssr R package. The package provides a suite of functions for preregistrating and sharing data/materials. Although it was initially designed as an easy-to-use tool for experimental psychopathologists and other researchers in clinical psychology, it can be used from any researcher running experimental studies.

The rationale behind the design of the package can be found in the pre-print A Step-By-Step Guide on Preregistration and Effective Data Sharing for Psychopathology Research.

Installation instructions

Before installing the software, make sure that you have the most recent versions of the following software installed: R, Rtools, and git, pandoc. You can also chose between installing MikTex or tinytex.

After that, start a new R session and paste the following commands in the R console.

```
if(!require(devtools)) { install.packages("devtools") } # Install devtools incase it is not installed
devtools::install_github("AngelosPsy/pssr")
```

If everything went as planned, the software is now ready to be used.

Initiating a pssr session

The main function is the pssr::shiny_app() which initiates a new shiny session. As in any other function in R, just paste

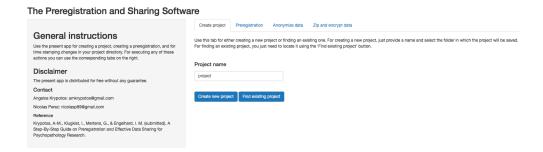
```
pssr::shiny_app()
```

in the R console. After doing that, a new window will appear. We now explain each tab of the software.

Create project Tab

For creating a new project, navigate to the 'Create project'. Then, place a name in the 'Project name' box and click on the 'Create new project'. In case you want to reopen an existing project, the user can just click on the 'Find existing project' box and navigate to an existing project. In case a folder is selected that was not created by the *pssr*, the program returns a warning.

When a project folder is created, the program automatically creates a directory with the project's name. Inside the directory the following subdirectories are created: "analyses", "data", "manuscript", "material", and "preregistration".



Preregistration Tab

For creating a preregistration document, you can enter a name in the "Enter name of the preregistration". Then, choose template you want to use so as to form your preregistration. The pssr software supports 3 templates. These are the 'pss', the 'aspredicted' from the aspredicted website, and the 'osf' from the (osf)[osf.io] website. In case the 'pss' template is selected, then a new tab is presented, with each tab now having different boxes for every different piece of information that needs to be preregistrated (e.g., methods, statistical analyses). We describe more about this type of information in our paper.

In case the 'aspredicted' or the 'osf' template are selected, then a new window will appear. The user then can use manipulate the text using the (Rmarkdown)[https://rmarkdown.rstudio.com] template. For these templates, we use the (prereg)[https://cran.r-project.org/web/packages/prereg/index.html] package authored by (Frederik Aust)[https://github.com/crsh].

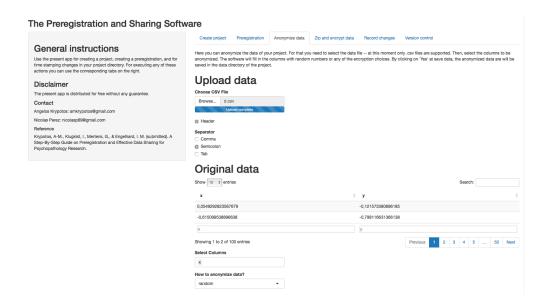
Generate a pdf of the pregistration file

Under 'Preregistration' press 'Choose files'. On the pop up window, go to the 'preregistration' folder. Inside that folder, select the 'Rmd' file with the name of the preregistration file you want to manipulate and click on 'Select'. After that, click on the 'Create PDF's'. Then the pdf files of the preregistration files are now being saved in the 'preregistration' folder.



Anonymize data

Our software can also be used to anonymize data. For that, navigate to the 'Anonymize data' folder. Then, choose a CSV file that can be used for anonymizing data. The software currently accepts only csv files. After that, select the columns that will be anonymized. After selecting the columns, you can select either to fill in the columns using random numbers or just encryption algorithms by clicking one of the options in the drop down menu named 'How to anonymize data?'.



Zip and encrypt data

The full project can be zipped and encrypted so that it can be easily shared with the rest of the community. For that, navigate to the 'Zip and encrypt data' tab. Then, enter the password you want, select the columns that you want to zip and encrypt, and then click on the 'Encrypt Project files'.

