QUT ife

Institute for Future Environments
Digital Observatory

Network Analysis Using R

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To prepare for attending the *Network Analysis Using R* Training, please follow these instructions which will explain how to install:

- R

- R Studio

- Packages for R

There are also some extra instructions to follow just in case you encounter issues installing packages.

Install R

- First, make sure you have local admin rights to your machine. If you're not sure how to do this, these instructions will help.

- Go to CRAN (comprehensive R archive network) to view the latest versions of R for each operating system.

- Select the appropriate version for your operating system (Windows, Mac, or Linux).

- Install R to the default location, usually:

```
C:\Program Files\R
```

Install R Studio

- Go to RStudio and select the free version of RStudio Desktop.

- Select the appropriate version for your operating system.

- Install R Studio to the default location, usually:

```
C:\Program Files\RStudio
```

Install Libraries

Open R Studio and run the following code:

```
install.packages("dplyr")
```

```
install.packages("igraph")
```

Extra Instructions (1/4)

You might encounter problems if you are trying to install R or R packages to a location that you don't have read/write access. If you receive an error message such as "locked file" or "you don't have permission to save in this location", the following instructions should help with these issues.

You may not require all steps, but by doing all of them you will eliminate a lot of common issues and save yourself potential future problems as well.

Extra Instructions (2/4)

Create a folder which will be the repository for your R packages. The folder will need to be saved somewhere that you have read/write access, and not a network location (not the one starting with `\\qut.edu.au`.

I called mine "R Repository" and put it in the following location:

`C:\Users\<your_username>\Documents\Repositories\R Repositories`

Please bear in mind that this path is on C: and is therefore not backed up by QUT, and won't be available for use on other machines. Therefore, it's a good idea to keep a list of the R packages that you install to this location so that if you ever need to reinstall them, it will be an easy process.

Extra Instructions (3/4)

Locate the following file:

```
C:\Program Files\R\R-3.6.1\library\base\R\R profile
```

Note: your file path may be slightly different if you have installed an earlier or later version of R.

Open it in a text editor program and add the following code to the bottom (ensuring to replace backslashes with forwardslashes):

```
# Set default directory for user installed packages
.libPaths(c('C:/Users/<your_username>/Documents /Repositories/R
Repository', .libPaths()))
```

Extra Instructions (4/4)

Save your changes to the R profile file, ensuring that no file extension (e.g., .txt) has been appended to the file.

Navigate to R Studio from the Start menu, then right click on R Studio > More > Run as administrator > Yes

Run the following code to check the location of the libraries:

```
.libPaths()
```

The first one should be the one you specified earlier in the R profile file:

```
[1] "C:/Users/<your_username>/Documents/Repositories/R Repository"
```