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Creating reproducible dynamic reports using data from the Secure Anonymised Information Linkage (SAIL) Databank

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Introduction/Background

R, an open source analytical software has gained wide popularity for its powerful statistical and graphical techniques, little known is that it also proves to be a fantastic tool for generating automated, content specific documentation using a combination of extensible packages (i.e. R markdown, Pandoc, MiKTeX, Knitr). One such example of using these techniques is to create content specific PDF reports for the 300 plus general practices in Wales who are contributing data to the Secure Anonymised Information Linkage (SAIL) Databank.

Conclusion

Methods described in this talk is highly efficient and easy to adapt to different context (e.g. automate documentation for metadata)

Objectives

1. Create large number of automated PDF reports
2. Content specific to individual practice

Approach

This project aimed to facilitate the production of a large number of similar reports (tailored to specific recipients) by reducing the repetition and manual effort required. This was done by using a combination of packages in R to create scripts to automate the production of large numbers of tailored reports that capture the characteristics of each individual practice.

Results

The output of this piece of work was a set of tailored reports for more than 300 Walsh general practices contributing data to the Secure Anonymised Information Linkage (SAIL) Databank up to 2015. The production of these reports was automated using a combination of R packages; the source code is flexible and can be applied to a range of contexts.

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