# The FAIRification of research in real-world evidence: A practical introduction to reproducible analytic workflows using Git and R

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**Abstract**

Transparency and reproducibility are major prerequisites for conducting meaningful real-world evidence (RWE) studies that are fit for decision-making. Many advances have been made in the documentation and reporting of study protocols and results, but the principles for version control and sharing of analytic code in RWE are not yet as established as in other quantitative disciplines like computational biology and health informatics. In this practical tutorial, we aim to give an introduction to distributed version control systems (VCS) tailored towards the FAIR ( **F**indable, **A**ccessible, **I**nteroperable and **R**eproducible) implementation of RWE studies. To ease adoption, we provide detailed step-by-step instructions with practical examples on how the Git VCS and R programming language can be implemented into RWE study workflows to facilitate reproducible analyses. We further discuss and showcase how these tools can be used to track changes, collaborate, disseminate and archive RWE studies through dedicated project repositories that maintain a complete audit trail of all relevant study documents.

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