Full Circle Collaboration
Vanderbilt Biostatistics

Shawn Garbett, Frank Harrell, Tom Stewart
The Problem
Full Circle Collaboration

I’m a Biostatistician and I use LaTeX, R, Markdown and git to produce reproducible research. Let’s do a project together.

Great, I’m a Clinician and I need statistics.
I use Word.
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Let me show you how to use these wonderful tools.

I use Word. Please provide that.
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Okay, Here’s a Word Document. The formatting is wonky.

Thank you. Oh, the data has changed here’s the new set of data.
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Okay, here’s the updated Word Document.

Can you just cut and paste all the changes into MANUSCRIPT_SPG_FAH_2017-08-14-3.old.new.docx?
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Solution Requirements

- Traceability – The ability to trace where a value or statement came from easily upon review of a document.
- Substitutability – Given a new set of data, the ability to rerun all analysis and automatically update a downstream Word document.
- Integration – Integrates with existing R / Rmarkdown tool set that is used for Biostatistics report production.
Tools Produced

• Tangram – R package that produces tables and statistics directly from data set with keyed index.
• Generates Word Document with unique key tied to generation of data in comments.
• Can trace source of any copy and pasted value from original report.
• Can regenerate target word document from new data a list of key, values and a macro will substitute this in a Word document.
• See: Tangram R package Vignette on github.com