

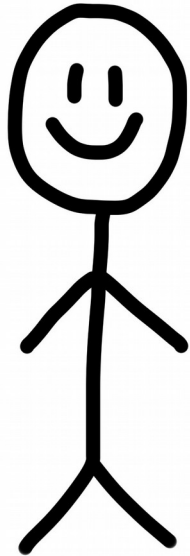
Full Circle Collaboration

Vanderbilt Biostatistics

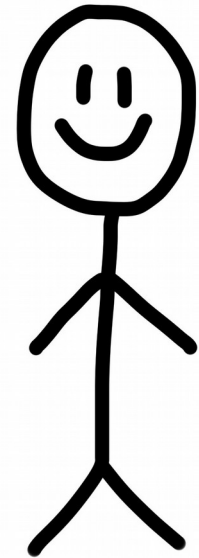
Shawn Garbett, Frank Harrell, Tom Stewart

The Problem

Full Circle Collaboration



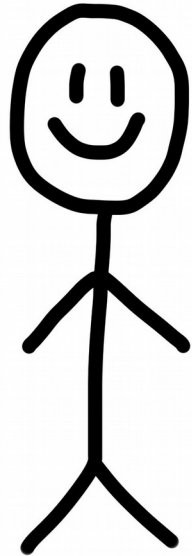
I'm a Biostatistician and I use
LaTeX, R, Markdown and git to
produce reproducible research.
Let's do a project together.



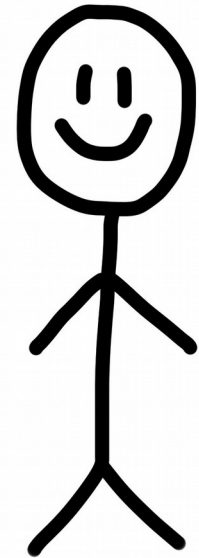
Great, I'm a Clinician and I need
statistics.
I use Word.

The Problem

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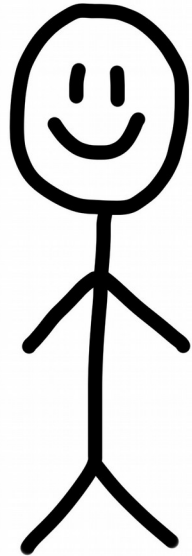
Let me show you how to use these wonderful tools.



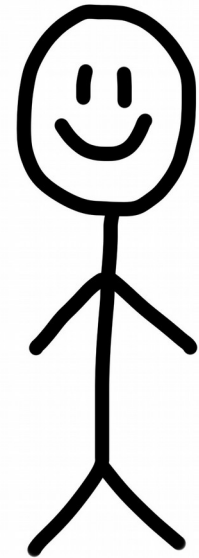
I use Word. Please provide that.

The Problem

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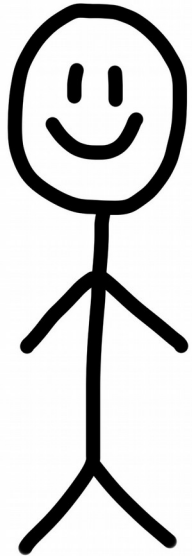
Okay, Here's a Word Document.
The formatting is wonky.



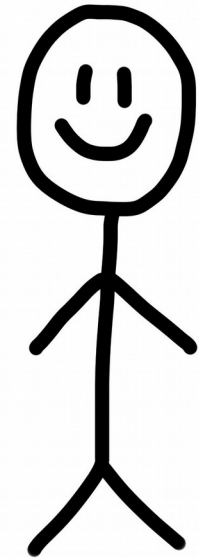
Thank you. Oh, the data has
changed here's the new set of data.

The Problem

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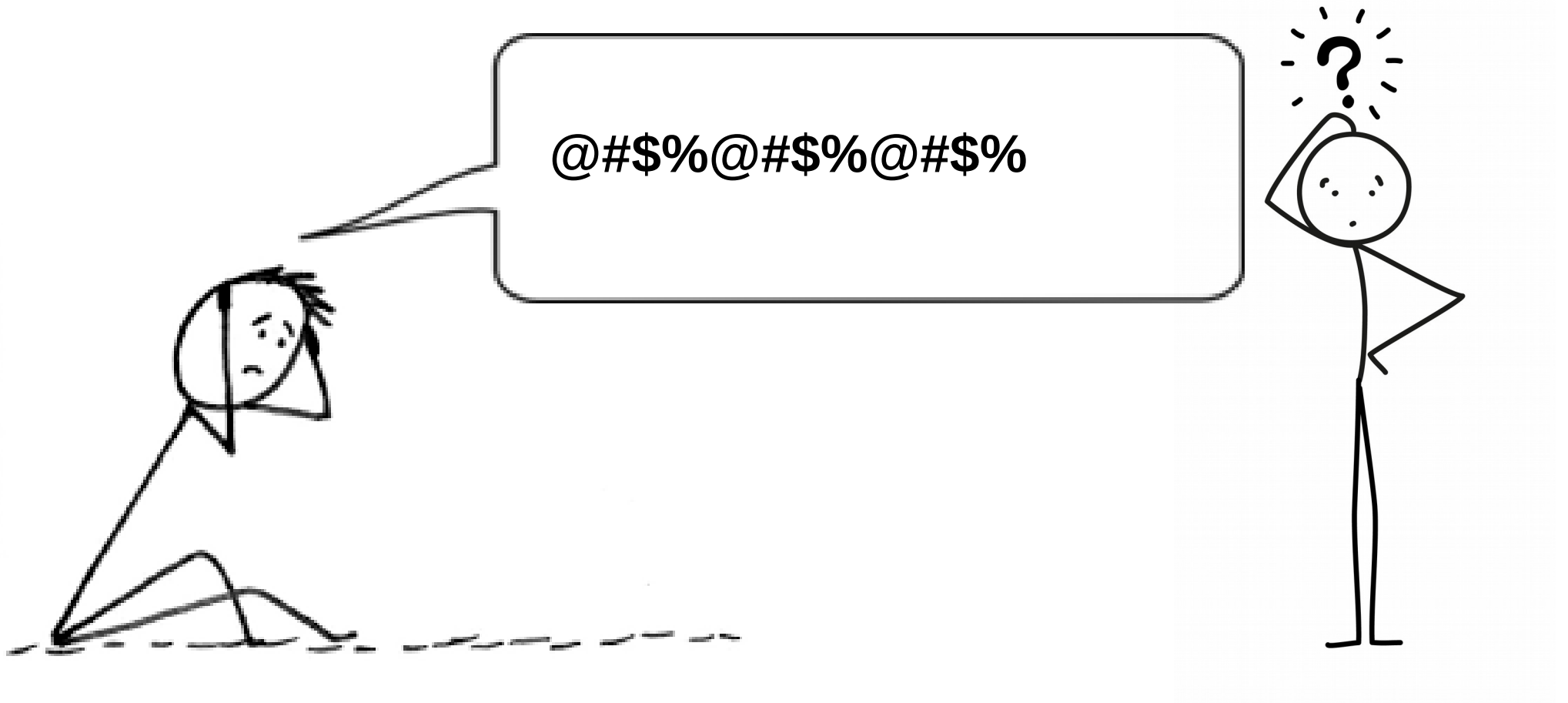
Okay, here's the updated Word Document.



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

The Problem

Full Circle Collaboration



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