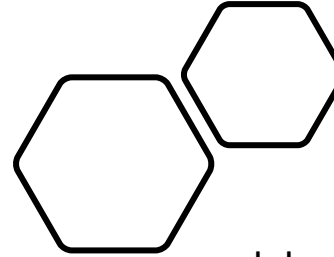


# Reports, Presentations and Web Page using RMarkdown

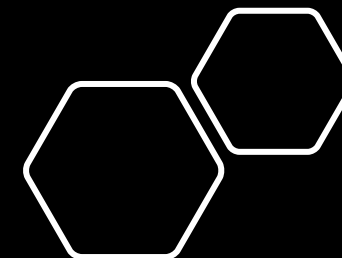
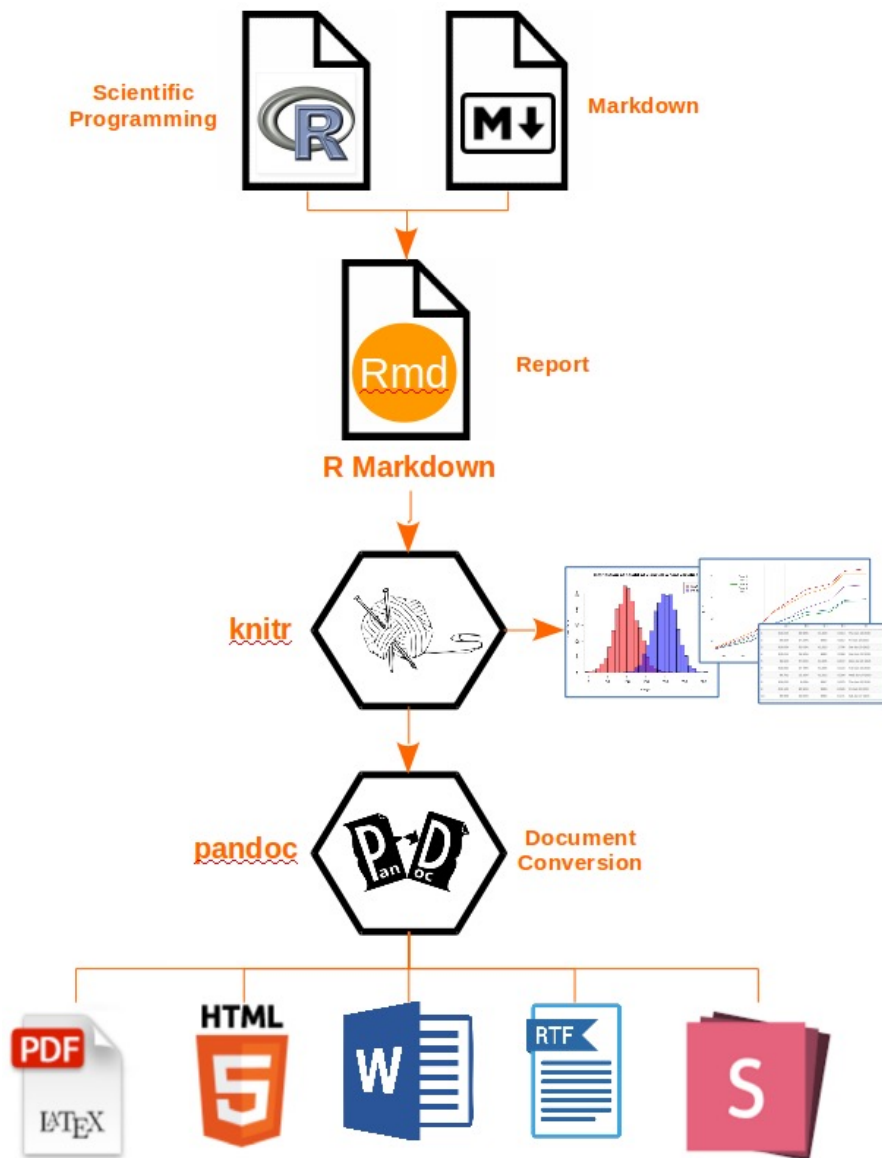
Bharat Bhushan Verma



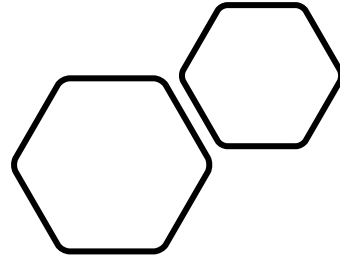
# R Markdown



- rmarkdown is a R package in R programming environment
- R Markdown files have extension .Rmd
- rmarkdown has tools to convert .Rmd files into pdf, html, docx etc.
- Htmlwidgets can be embedded in Rmd files.
- HTML presentation can be created in Rmd
- `install.packages("rmarkdown")`  
`remotes::install_github('rstudio/rmarkdown')`  
Development version
- File > New File > R Markdown

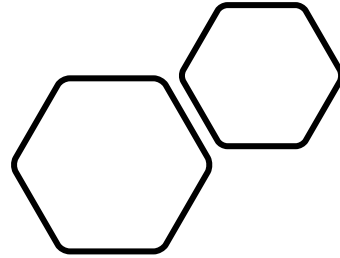


# R Markdown and Latex



- R Markdown uses LaTeX to create PDF documents.
- BibTeX is the reference manager for LaTeX.
- BibTeX interfaces with EndNote, Mendeley and Zotero.
- LaTeX is one of the distribution of TeX.
- MacOS uses [MacTeX](#), Linux uses [LaTeX](#), Windows uses [MiKTeX](#)

# Pandoc and R Markdown



- Pandoc in R Markdown converts .Rmd in almost any format
- <https://pandoc.org/installing.html>
- Rstudio recognizes Rmd files and activates knitr button.

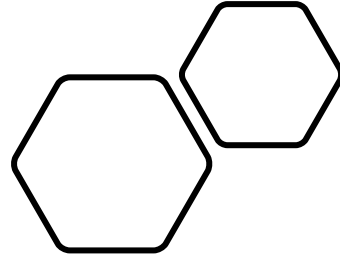
# YAML

---

- Yet Another Markup Language
- It stores configuration information in key: value format
- Some of this information is on top of the Rmd
- YAML carries knitting instruction.
- Example:

```
output: html_document
output: pdf_document
output:
  pdf_document:
    toc: true
```

# What YAML can control



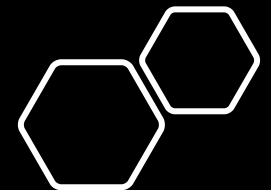
- Table of Contents
- Data Frames printing format
- Fonts, color and document appearance etc.

```
```{r setup, include=FALSE}  
knitr::opts_chunk$set(echo = TRUE)  
```
```



## Code Chunk

- echo=FALSE /TRUE
- results= 'hide' /.../.../...
- message= FALSE /TRUE
- warning= FALSE /TRUE
- fig.show= FALSE /TRUE





# Advanced Features in Rmarkdown

## Tabbed Sections

- Add `{.tabset}` to parent heading
- Add `{.tabset .tabset-dropdown}` to parent heading

## Manage Chunk names

- Install namer package
- Install miniUI if needed
- Apply r chunk labels using addins namer.

## Source Script

```
```{r , echo=FALSE}  
source("script.R")  
```
```



# HTMLwidgets

- Htmlwidgets are interactive data visualizations created in R code
- Leaflet, dygraphs, Plotly, rbokeh, Highcharter, visNetwork, MetricsGraphics, DigrammeR, rglwidget, threejs, DataTables, networkD3
- <https://www.htmlwidgets.org/>
- More Examples on
  - <https://github.com/rstudio/sol-eng-public/tree/master/newTopics/05-HTMLWidgets>