Scientific Reproducibility in Biology Research

Day 4

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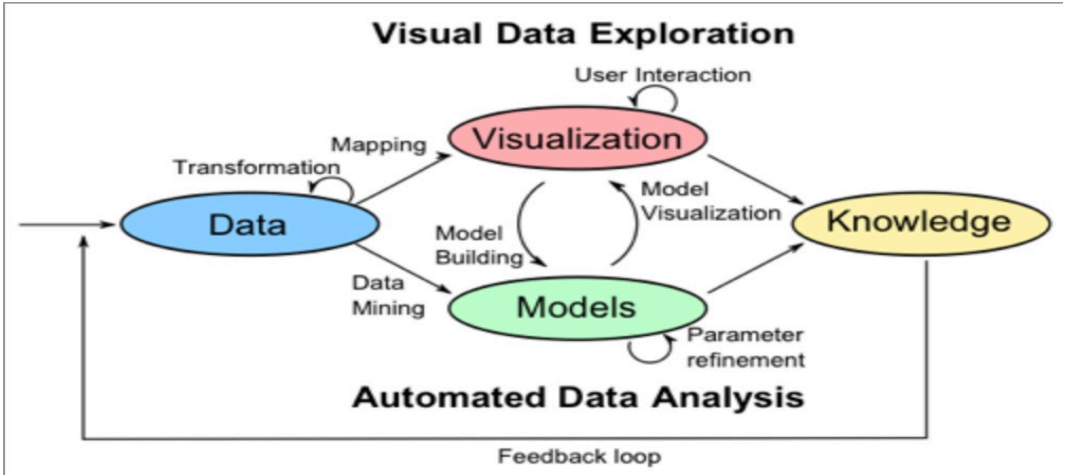
Review of workshop highlights

- Making scientific reproducibility a priority
  - Clear directory/file structures
  - FAIR data principles
  - Good coding practices
  - Automated processes

Review of workshop highlights



Review of workshop highlights

- create Rmarkdown documents
- create tidy data for easy visualisation
- table summaries using gtsummary package
- data wrangling using tidyverse packages
- data visualisation using ggplot()

Fun data wrangling tools!

- filter()
- select()
- arrange()
- mutate()
- group_by() %>% summarise()
- pivot_longer() & pivot_wider()
- fct_recode()

Fun ggplot() commands!

- facet_wrap()
- geom_point(), geom_histogram(), geom_bar(), geom_beeswarm, geom_line(), geom_etc()
- geom_smooth()
- scale_y_log10()
- labs()
- scale_colour_manual()
- theme()

What we'll cover today

- Review Day 3 assignment
- Jam session: applying your new skills to real data