Curso Ciencia de datos en R

Escuela de Doctorado, Universidad de Alcalá, Mayo-Junio 2021

Profesora Sara Villén Pérez

2) DATA VISUALIZATION

BLOCK 1 - INTRODUCTION TO GGPLOT

- 1. Introduction to ggplot logic
- 2. Building a simple plot in ggplot: ggplot(data, aes()) + geom ()

BLOCK 2 - GEOMETRIES: geom ()

BLOCK 2.1. - BASIC GRAPHS

- 3. Scatterplot: geom point()
- 4. Line graphs: geom_line()
- 5. Area graphs: geom_area()
- 6. Barplot : geom_bar()

BLOCK 2.2. - DISTRIBUTION GRAPHS: frequency and density graphs

- 7. Histogram: geom histogram(), geom bar() [frequency]
- 8. Frequency polygon: geom freqpoly() [frequency]
- 9. Density curve: geom_density() [density]
- 10. Boxplot: geom_boxplot() [frequency]
- 11. Violin plot: geom_violin() [density]
- 12. 2D Frequency map: stat_bin2d() [frequency]
- 13. 2D Density map: stat_density2d() [density]

BLOCK 2.3. - GEOREFERENCED GRAPHS: MAPS

14. Georeferenced graphs — Maps: geom_polygon(), geom_point(), geom_path(), geom_raster(), coord_quickmap(), coord_map(), borders(); layer_spatial(), coord_sf(), annotation_scale(), annotation_north_arrow()

BLOCK 3 - OPTIONAL LAYERS: facet_(), stat_(), scale_(), coord_(), labs(), annotate(), theme(), ...

- 15. Facets: facet_grid(), facet_wrap()
- 16. Stats: stat_()
- 17. Scales: scale_()
- 18. Coordinates: coord_()
- 19. Titles and labs: ggtitle(), labs(), *lab()
- 20. Annotations: annotate(), geom_text(), geom_*line(), geom_errorbar(), geom_crossbar(), geom_linerange(), geom_pointrange()
- 21. Theme: theme()

BLOCK 4: SAVE FIGURES AND MORE

- 22. Save figures: ggsave(), save_plot()
- 23. ggplot extensions

BLOCK 5: ANIMATED GRAPHS: {gganimate}

- 24. Introduction to animated graphs
- 25. Grammar of {gganimate}: transition_*(), view_*(), shadow_*(), enter_*()/exit_*(), ease_aes()
- 26. Render (save) animated graphs