

CHAPTER OVERVIEW

3: Types of Data

To process data it is not enough just to obtain them. You need to convert it to the appropriate format, typically to numbers. Since Galileo Galilei, who urged to “*measure what can be measured, and make measurable what cannot be measured*”, European science aggregated tremendous experience in transferring surrounding events into numbers. Most of our instruments are devices which translate environment features (e.g., temperature, distance) to the numerical language.

[3.1: Degrees, hours and kilometers- measurement data](#)

[3.2: Grades and t-shirts- ranked data](#)

[3.3: Colors, Names and Sexes - Nominal Data](#)

[3.4: Fractions, counts and ranks- secondary data](#)

[3.5: Missing data](#)

[3.6: Outliers, and how to find them](#)

[3.7: Changing data- basics of transformations](#)

[3.8: Inside R](#)

[3.9: Answers to exercises](#)

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