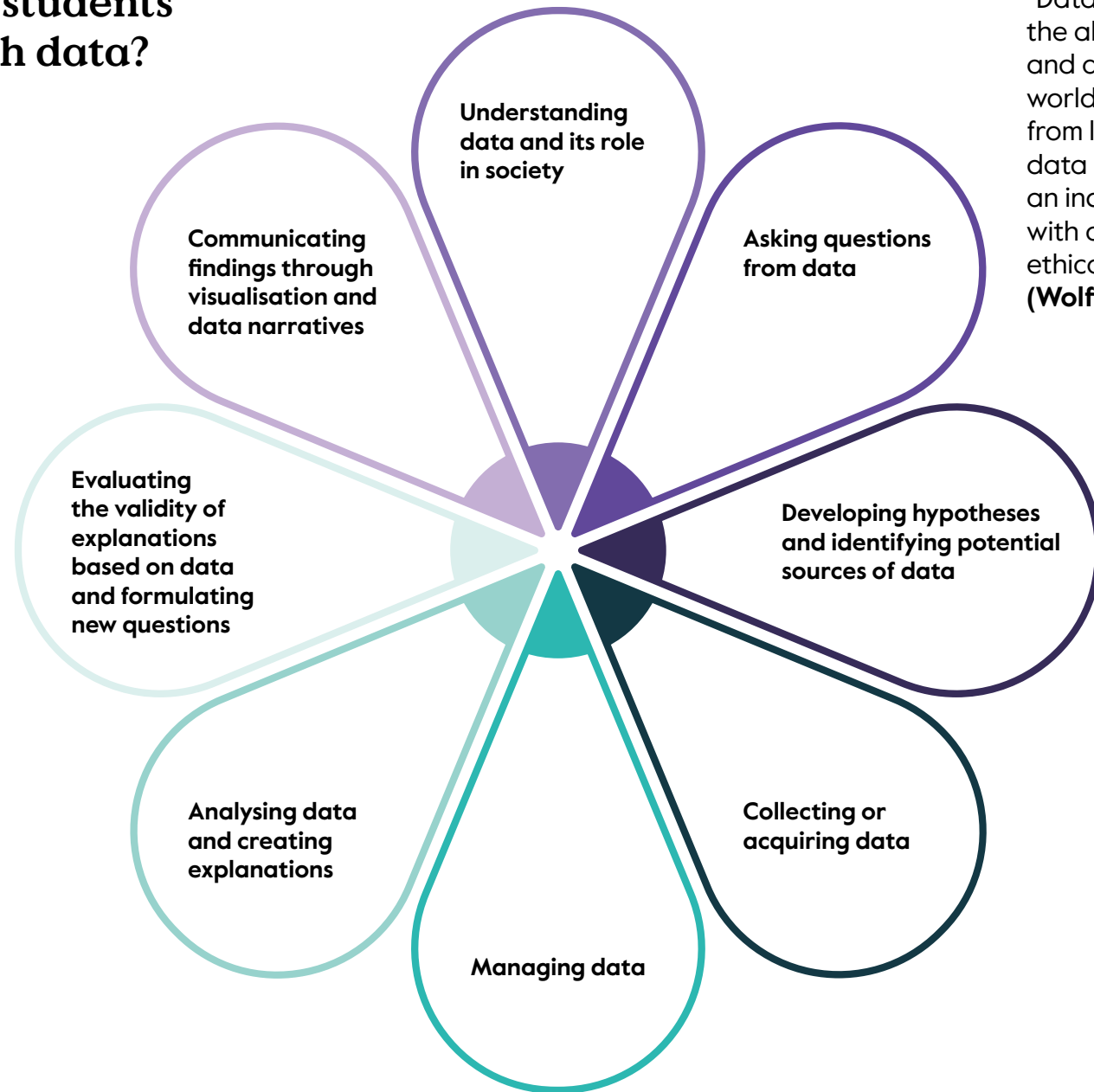# What competencies do students need when working with data?

- Understanding data
- Understanding the role and impact of data in society in different contexts
- Understanding and following data ethics

- Identifying problems or questions that can be solved with data

- Developing hypotheses
- Identifying useful data

- Collecting or acquiring data
- Evaluating and critiquing data

- Organising data
- Creating and using metadata
- Managing data curation, security, and re-use
- Sharing data
- Preserving data

- Preparing data for analysis
- Using data tools
- Conducting basic data analysis

- Interpreting information derived from data
- Critiquing presented interpretations of data
- Engaging in data driven decision making (DDDM)
- Formulating new questions based on findings

- Synthesising and visualising data
- Communicating results orally and in writing
- Creating and telling data stories
- Citing data

Understanding data and its role in society

Asking questions from data

Developing hypotheses and identifying potential sources of data

Collecting or acquiring data

Managing data

Analysing data and creating explanations

Evaluating the validity of explanations based on data and formulating new questions

Communicating findings through visualisation and data narratives

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