Data bias occurs when the data used in analysis, research, or decision-making is systematically skewed or unrepresentative of the real-world population or phenomenon being studied. This bias can lead to inaccurate conclusions and decisions. Key types of data bias include:

Selection Bias: When the sample of data collected is not representative of the target population. For example, if a study only includes data from certain demographics, the results may not be generalizable to other groups.

Confirmation Bias: When data is interpreted or selected in a way that confirms pre-existing beliefs or hypotheses, rather than objectively analyzing all relevant information.

Measurement Bias: Occurs when there are errors in how data is collected or measured, leading to inaccurate results. This could be due to faulty instruments, inconsistent methods, or human error.

Algorithmic Bias: When algorithms or models used to analyze data are influenced by biased data or assumptions, leading to unfair or skewed outcomes.

Reporting Bias: When only certain types of results or data are reported, while others are omitted. For instance, only publishing positive results and ignoring negative or inconclusive findings.

Addressing data bias involves ensuring diverse and representative data collection, validating data sources, using robust methodologies, and being transparent about potential limitations. It's crucial for making informed and equitable decisions based on data.