

Data Visualisation and Statistics from the Future

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Our world is increasingly data-rich and data-dependent. Every day, 2.5 quintillion bytes of data are solely created — so much that 90% of the data in the world today has been created in the last two years alone. This data can be structured and unstructured data such as text, sensor data, audio, digital pictures and videos, click streams, posts to social media sites, log files, cell phone GPS signals etc. Data visualization is commonly used to explore and effectively communicate relevant information about this voluminous data through graphic representations. The term data visualisation is related to the new field of information visualisation. This includes visualisation of all kinds of information, not just data, and is closely associated with research by computer scientists. From a statistical perspective data visualization can be viewed as computer automated exploratory data analysis of voluminous complex data sets. This data visualisation has blossomed into a multidisciplinary research area, and a wide range of visualisation tools have been developed at an accelerated pace. Admittedly, statistical data analysis necessitates data visualisation to form the basis for decision-making. New approaches are discussed so data visualisation and the flexible nature of current computing software can potentially have a major impact on the discipline of Statistics.

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