

In 2014, the American Statistical Association's Section on Statistical Learning and Data Mining changed its name to the Section on Statistical Learning and Data Science, reflecting the ascendant popularity of data science. Jeff Wu used the term "data science" for the first time as an alternative name for statistics. In 2012, technologists Thomas H. During the 1990s, popular terms for the process of finding patterns in datasets (which were increasingly large) included "knowledge discovery" and "data mining". The professional title of "data scientist" has been attributed to DJ Patil and Jeff Hammerbacher in 2008. In 2015, the American Statistical Association identified database management, statistics and machine learning, and distributed and parallel systems as the three emerging foundational professional communities. This can involve tasks such as data cleaning, data visualization, and exploratory data analysis to gain insights into the data and develop hypotheses about relationships between variables. Others argue that data science is distinct from statistics because it focuses on problems and techniques unique to digital data. Data science is a "concept to unify statistics, data analysis, informatics, and their related methods" to "understand and analyze actual phenomena" with data. Despite these differences, data science and data analysis are closely related fields and often require similar skill sets. Data science and data analysis are both important disciplines in the field of data management and analysis, but they differ in several key ways. F. In 2003, Columbia University launched The Journal of Data Science. Stanford professor David Donoho writes that data science is not distinguished from statistics by the size of datasets or use of computing and that many graduate programs misleadingly advertise their analytics and statistics training as the essence of a data-science program. Both fields play vital roles in leveraging the power of data to understand patterns, make informed decisions, and solve complex problems across various domains. Stanford professor David Donoho writes that data science is not distinguished from statistics by the size of datasets or use of computing and that many graduate programs misleadingly advertise their analytics and statistics training as the essence of a data-science program. While data analysis focuses on extracting insights from existing data, data science goes beyond that by incorporating the development and implementation of predictive models to make informed decisions. Data analysis typically involves working with smaller, structured datasets to answer specific questions or solve specific problems. He reasoned that a new name would help statistics shed inaccurate stereotypes, such as being synonymous with accounting or limited to describing data. This can involve tasks such as data cleaning, data visualization, and exploratory data analysis to gain insights into the data and develop hypotheses about relationships between variables. Though it was used by the National Science Board in their 2005 report "Long-Lived Digital Data Collections: Enabling Research and Education in the 21st Century", it referred broadly to any key role in managing a digital data collection. "Data science" became more widely used in the next few years: in 2002, the Committee on Data for Science and Technology launched the Data Science Journal. In 1998, Hayashi Chikio argued for data science as a new, interdisciplinary concept, with three aspects: data design, collection, and analysis. Data science and data analysis are both important disciplines in the field of data management and analysis, but they differ in several key ways.