In 2012, technologists Thomas H. He describes data science as an applied field growing out of traditional statistics. 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. 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. For instance, a data scientist might develop a recommendation system for an e-commerce platform by analyzing user behavior patterns and using machine learning algorithms to predict user preferences. Data science is a "concept to unify statistics, data analysis, informatics, and their related methods" to "understand and analyze actual phenomena" with data. Both fields require a solid foundation in statistics, programming, and data visualization, as well as the ability to communicate findings effectively to both technical and non-technical audiences. In 1998, Hayashi Chikio argued for data science as a new, interdisciplinary concept, with three aspects: data design, collection, and analysis. Data science is a "concept to unify statistics, data analysis, informatics, and their related methods" to "understand and analyze actual phenomena" with data. Davenport and DJ Patil declared "Data Scientist: The Sexiest Job of the 21st Century", a catchphrase that was picked up even by major-city newspapers like the New York Times and the Boston Globe. The modern conception of data science as an independent discipline is sometimes attributed to William S. In summary, data analysis and data science are distinct yet interconnected disciplines within the broader field of data management and analysis. Despite these differences, data science and data analysis are closely related fields and often require similar skill sets. While both fields involve working with data, data science is more of an interdisciplinary field that involves the application of statistical, computational, and machine learning methods to extract insights from data and make predictions, while data analysis is more focused on the examination and interpretation of data to identify patterns and trends. He describes data science as an applied field growing out of traditional statistics. While both fields involve working with data, data science is more of an interdisciplinary field that involves the application of statistical, computational, and machine learning methods to extract insights from data and make predictions, while data analysis is more focused on the examination and interpretation of data to identify patterns and trends. Others argue that data science is distinct from statistics because it focuses on problems and techniques unique to digital data. There is still no consensus on the definition of data science, and it is considered by some to be a buzzword. 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 science also integrates domain knowledge from the underlying application domain (e.g., natural sciences, information technology, and medicine). However, the definition was still in flux. Jeff Wu used the term "data science" for the first time as an alternative name for statistics. Later, attendees at a 1992 statistics symposium at the University of Montpellier II acknowledged the emergence of a new discipline focused on data of various origins and forms, combining established concepts and principles of statistics and data analysis with computing. The term "data science" has been traced back to 1974, when Peter Naur proposed it as an alternative name to computer science. Many statisticians, including Nate Silver, have argued that data science is not a new field, but rather another name for statistics.