In 1962, John Tukey described a field he called "data analysis", which resembles modern data science. Data scientists are responsible for breaking down big data into usable information and creating software and algorithms that help companies and organizations determine optimal operations. In addition to statistical analysis, data science often involves tasks such as data preprocessing, feature engineering, and model selection. However, data science is different from computer science and information science. Data analysts typically use statistical methods to test these hypotheses and draw conclusions from the data. F. 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. In 2012, technologists Thomas H. "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. During the 1990s, popular terms for the process of finding patterns in datasets (which were increasingly large) included "knowledge discovery" and "data mining". Data science is an interdisciplinary field focused on extracting knowledge from typically large data sets and applying the knowledge and insights from that data to solve problems in a wide range of application domains. In 1985, in a lecture given to the Chinese Academy of Sciences in Beijing, C. As such, it incorporates skills from computer science, statistics, information science, mathematics, data visualization, information visualization, data sonification, data integration, graphic design, complex systems, communication and business. 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. The professional title of "data scientist" has been attributed to DJ Patil and Jeff Hammerbacher in 2008. 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. However, data science is different from computer science and information science. Jeff Wu used the term "data science" for the first time as an alternative name for statistics. The term "data science" has been traced back to 1974, when Peter Naur proposed it as an alternative name to computer science. Data analysts typically use statistical methods to test these hypotheses and draw conclusions from the data. A data scientist is a professional who creates programming code and combines it with statistical knowledge to create insights from data. In 2012, technologists Thomas H. 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. 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.