Moreover, both fields benefit from critical thinking and domain knowledge, as understanding the context and nuances of the data is essential for accurate analysis and modeling. Data science is multifaceted and can be described as a science, a research paradigm, a research method, a discipline, a workflow, and a profession. They work at the intersection of mathematics, computer science, and domain expertise to solve complex problems and uncover hidden patterns in large datasets. In 2003, Columbia University launched The Journal of Data Science. Data analysts typically use statistical methods to test these hypotheses and draw conclusions from the data. 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. "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. 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. There is still no consensus on the definition of data science, and it is considered by some to be a buzzword. 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 2003, Columbia University launched The Journal of Data Science. However, the definition was still in flux. Big data is a related marketing term. In 1962, John Tukey described a field he called "data analysis", which resembles modern data science. After the 1985 lecture at the Chinese Academy of Sciences in Beijing, in 1997 C. Data science is multifaceted and can be described as a science, a research paradigm, a research method, a discipline, a workflow, and a profession. F. Data science is a "concept to unify statistics, data analysis, informatics, and their related methods" to "understand and analyze actual phenomena" with data. In 1998, Hayashi Chikio argued for data science as a new, interdisciplinary concept, with three aspects: data design, collection, and analysis. 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. 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. Despite these differences, data science and data analysis are closely related fields and often require similar skill sets. Data analysts typically use statistical methods to test these hypotheses and draw conclusions from the data. It uses techniques and theories drawn from many fields within the context of mathematics, statistics, computer science, information science, and domain knowledge.