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. Data science and data analysis are both important disciplines in the field of data management and analysis, but they differ in several key ways. Data analysis typically involves working with smaller, structured datasets to answer specific questions or solve specific problems. However, the definition was still in flux. It uses techniques and theories drawn from many fields within the context of mathematics, statistics, computer science, information science, and domain knowledge. 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. There is still no consensus on the definition of data science, and it is considered by some to be a buzzword. During the 1990s, popular terms for the process of finding patterns in datasets (which were increasingly large) included "knowledge discovery" and "data mining". Statistician Nathan Yau, drawing on Ben Fry, also links data science to human–computer interaction: users should be able to intuitively control and explore data. Data science and data analysis are both important disciplines in the field of data management and analysis, but they differ in several key ways. Others argue that data science is distinct from statistics because it focuses on problems and techniques unique to digital data. For example, a data analyst might analyze sales data to identify trends in customer behavior and make recommendations for marketing strategies. Data science is multifaceted and can be described as a science, a research paradigm, a research method, a discipline, a workflow, and a profession. 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. 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. The term "data science" has been traced back to 1974, when Peter Naur proposed it as an alternative name to computer science. A data scientist is a professional who creates programming code and combines it with statistical knowledge to create insights from data. The field encompasses preparing data for analysis, formulating data science problems, analyzing data, developing data-driven solutions, and presenting findings to inform high-level decisions in a broad range of application domains. 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. A decade later, they reaffirmed it, stating that "the job is more in demand than ever with employers". However, data science is different from computer science and information science. 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, on the other hand, is a more complex and iterative process that involves working with larger, more complex datasets that often require advanced computational and statistical methods to analyze. Data scientists are often responsible for collecting and cleaning data, selecting appropriate analytical techniques, and deploying models in real-world scenarios.