Turing Award winner Jim Gray imagined data science as a "fourth paradigm" of science (empirical, theoretical, computational, and now data-driven) and asserted that "everything about science is changing because of the impact of information technology" and the data deluge. A data scientist is a professional who creates programming code and combines it with statistical knowledge to create insights from data. Andrew Gelman of Columbia University has described statistics as a non-essential part of data science. Both fields play vital roles in leveraging the power of data to understand patterns, make informed decisions, and solve complex problems across various domains. The professional title of "data scientist" has been attributed to DJ Patil and Jeff Hammerbacher in 2008. The term "data science" has been traced back to 1974, when Peter Naur proposed it as an alternative name to computer science. Vasant Dhar writes that statistics emphasizes quantitative data and description. 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. In 1962, John Tukey described a field he called "data analysis", which resembles modern data science. However, data science is different from computer science and information science. In contrast, data science deals with quantitative and qualitative data (e.g., from images, text, sensors, transactions, customer information, etc.) and emphasizes prediction and action. The term "data science" has been traced back to 1974, when Peter Naur proposed it as an alternative name to computer science. In contrast, data science deals with quantitative and qualitative data (e.g., from images, text, sensors, transactions, customer information, etc.) and emphasizes prediction and action. In 2003, Columbia University launched The Journal of Data Science. The term "data science" has been traced back to 1974, when Peter Naur proposed it as an alternative name to computer science. 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 science is an interdisciplinary academic field that uses statistics, scientific computing, scientific methods, processes, algorithms and systems to extract or extrapolate knowledge and insights from noisy, structured, and unstructured data. The professional title of "data scientist" has been attributed to DJ Patil and Jeff Hammerbacher in 2008. 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 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. 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 a 2001 paper, he advocated an expansion of statistics beyond theory into technical areas; because this would significantly change the field, it warranted a new name. 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.