

Predictions On The Future Of Data Science



Fabio Moioli Forbes Councils Member

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*Executive Search & Leadership Advisory at Spencer Stuart.
Passionate about Artificial and Human Intelligences. 300K+ on
[LinkedIn](#) and [Twitter](#)*



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It is known that one of the main tasks usually assigned to data scientists is to “predict” the future. At the same time, the future of data scientists as a profession today is by no means predictable. New technologies are profoundly changing the responsibilities and

activities performed by data scientists. This is then compounded by further transformations that may soon totally change the nature of such work. Below are some predictions in this regard.

1. The work of data scientists, who are often hired to automate a company's processes and activities, could, in the future, be largely "automated." This is not to say that data scientists will be replaced by machines entirely; rather, their work will be greatly augmented by artificial intelligence (AI) and other forms of automation. In many cases, data scientists will still be needed to oversee and interpret the results of these automated processes. All of this, thanks in part to new low-code and no-code platforms, will grow and get adopted much faster than most could imagine.

2. We are entering an era when, more than ever, data science is becoming a team sport. It's no longer about building a model; it's about what you do with the model once you have it. The real challenge is how you operationalize those models and how you take those models and leverage them at scale to make them actionable across the organization. And that's where I think the focus is going to be for the future of data science.

3. Being a data scientist is today often considered one of the most secure jobs in the world. At the same time, we need to add a lot of cybersecurity to it. Data scientists are likely to face a growing demand for their skills in the field of cybersecurity. As the world becomes increasingly reliant on digital information, the need to protect this information from hackers and other cyber threats will become more important. Data scientists will need to be familiar with cybersecurity tools and techniques to help companies protect their data.

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4. Data scientists are likely to face an increasing prevalence of cloud computing. Cloud computing provides data scientists with access to powerful computing resources that can be used to process large datasets. As more companies move to the cloud, all data scientists will need to be more and more familiar with cloud-based data processing tools and techniques.

5. The work of data scientists will become much more “operationalized,” in part by organizations employing new sets of tools that are able to capture the workflows of data scientists and their best practices and quickly and easily train the enterprise on those best practices. And that’s where we will see new tooling increasingly coming in to help automate the workflows and create a platform for companies to quickly and easily train the enterprise on how to use those workflows.

6. The skills that data scientists use to perform their work will change, with coding and AI becoming more and more essential. In parallel, they also need to be much more business-minded. In the past, data scientists focused instead more on statistics and modeling and less on coding. This shift is due in part to the increasing complexity of data. Data sets are growing larger and more disparate, making it more difficult to glean insights from them. Meanwhile, the tools that data scientists

use to analyze data have become more sophisticated. As datasets have gotten larger and more complex, the need for data scientists to have strong coding skills has therefore increased. The same is true for machine learning.

7. Finally, some data scientists will have the opportunity to make a “quantum leap.” This is because quantum computing will have a significant impact on data science jobs. Quantum computers will be able to process large amounts of data much faster than traditional computers, which will allow data scientists to analyze data more efficiently and effectively. In order to use a quantum computer, you can’t use classical algorithms. You have to come up with new algorithms that take advantage of quantum mechanical properties, and then you can extract the information out of your data that way. Quantum data scientists must therefore understand how to use quantum algorithms. Specifically, quantum data scientists must be able to understand the basic principles of quantum mechanics, understand how quantum computers work, understand how to program a quantum computer and, more importantly than anything else, understand how to use a quantum algorithm to solve a particular real problem.

To conclude, while the need for data scientists is likely to continue to grow in the years ahead, the term “data scientist” may become less common in the future. This is because, as data becomes increasingly ubiquitous, the need for dedicated data scientists may diminish. Instead, organizations may increasingly rely on subject matter experts who are comfortable working with data. These experts may use data to inform their decision-making, but they will not be primarily focused on data.

Certainly, the need for data scientists to combine technical skills in areas like statistics and computer science with domain expertise in

areas like marketing or healthcare will grow. This combination of skills will allow data scientists to not only make sense of complex datasets but also develop creative solutions to problems that would be otherwise intractable. Therefore, creativity will become one of the key skills of great data scientists.

With all of this said, always remember that the best way to predict the future is often to create it.

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