



**LITSLINK**

## **6 Data Science Trends in 2021 - 2022**



- ❖ Your vision almost always affects your business outcomes. Depending on how you treat and use data science and related innovations, your company might become a new leader in its field or just vanish into thin air with millions of other businesses providing similar products or services.
- ❖ Whether you consider AI technologies to be your number one priority or you believe it threatens your existence, you cannot but deny the fact that artificial intelligence has affected all industries with no exception. Self-driving cars, sentiment analysis software, human-like chatbots are just a few byproducts of this ever-evolving data science revolution.

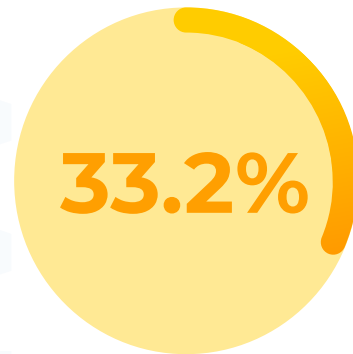


*“Artificial intelligence and data science are expected to penetrate all industries providing businesses with new solutions to face most significant industry challenges. Thus, no matter how you treat data science, if you’re not implementing it in your business, you’re just not the part of the game.”*

**Kate Stetsiuk, Head of Data Science  
Department at LITSLINK**

## CAGR

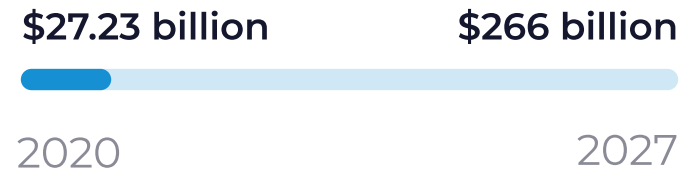
● Compound Annual  
Growth Rate



Artificial intelligence along with data science has become that “It” factor which accelerates business growths and grants companies with desirable competitive advantage.

## Market Value

The global AI market was estimated at [\\$27.23 billion](#) and it is expected to hit [\\$266 billion](#) in 2027 with an average CAGR of 33.2% during the forecasted period.



According to the [Fortune Business Insights](#), there is a set of factors that drive the development of the global artificial intelligence market and encourage the adoption of AI-based technologies.

One of the primary forces that stands behind the growing data science is the availability of connected devices and the evolving IoT industry. The rising proliferation of cloud-based devices provide a bunch of new opportunities for the application of artificial intelligence in such industries as healthcare, retail or manufacturing.

Higher levels of automation, improved diagnosis, recommendation systems or churn analysis are just a few capabilities brought by this perfect duo.

The McKinsey & Company logo is displayed in white text on a dark blue square background.

McKinsey  
& Company

*The latest studies at McKinsey has shown that companies capture just a fraction of what AI along with data science and machine learning can deliver to industries.*

When revisiting AI analytics in 2011 and 2019, the scientists have discovered that today's industries are still far from uncovering the full potential data science can deliver. While healthcare and the public sector have captured only 30 percent of the potential value McKinsey has uncovered five years ago, other industries failed to demonstrate even such progress.



*Data democratization in its broadest sense can be referred to the process of making digital information accessible to everyone along with removing gatekeepers that might create the bottleneck at the gateway to the data.*

### ❖ **Trend #1: Data Democratization**

Data is power. But only when it serves for a specific purpose and used by recipients to bring innovations and foster development in their fields. Lots of multibillion organizations such as Airbnb and Facebook, as well as promising startups, have been practicing this approach for many years. By releasing innovations and making them accessible to the broad audience, they enable talents to use their skills and knowledge wisely.

## ❖ Why is Data Democratization important?

Data democratization is essential when it comes to decision-making. As the world progresses and becomes more multifaceted as never before, companies require more data to make correct decisions. It means that sooner or later, an intuitive approach will lose its relevance. The more data you analyze, the better is the outcome of your actions.



More than 70% of decision-makers believe AI helps them be more focused.



## ❖ **How can you use it to benefit your business?**

If you conduct a quick research, you'll be surprised by the amount of useful data your employees can use to extract meaningful insights and make more informed decisions. By raising their awareness of the current trends and figures, you invest in their development. It also might help your co-workers to come up with better ideas, which will provide a boost to your business.

Just run the numbers to estimate how many people in your organization have access to data analytics. If this figure is below 30%, it means you're falling behind as industry average is somewhere in between 30-40%. To improve the situation, you can consider developing a data science solution that will provide you and your employees with relevant info about your business, clients and niche. Equipped with up-to-date facts, you'll be able to make more informed decisions.



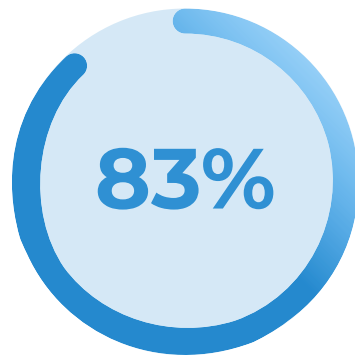
*DataOps (or as it commonly referred to as data operations) is a set of practices that aim to combine agility with speed to build end-to-end pipelines from data collection to delivery.*

## ❖ **Trend #2: DataOps**

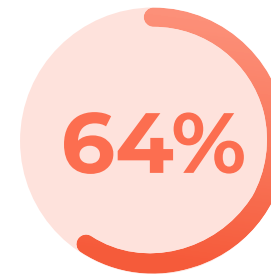
As for now, most businesses have learnt to generate data and collect it but a few of them manage to analyze it to extract insights and create real value for their customers. Since data volume continues to grow, data management and delivery often become the critical stumbling blocks for companies in different sectors. And this is where DataOps steps to assist businesses in analyzing, managing and keeping control of their data flows.

## Overview

DataOps is on the rise now as [83% of organizations](#) see data management as a vital part of their business strategy. However, [64% of companies](#) agree that inaccurate data continues to undermine their effort, which negatively affects their operations. Thus, this growing demand in DataOps accounts for \$50 million of investment in companies that provide a wide range of data operations products or services.



83% of organizations see data management as a vital part of their business strategy.



64% of companies agree that inaccurate data continues to undermine their effort

## Overview

DataOps is a buzzword in the world of tech and appears to be at the early stage of its adoption, which means multiple definitions and interpretations might exist. MIT technology Review and Gartner emphasize the meaning of communication in data processing and highlight the importance of improving collaboration between data stakeholders and other parties to drive automations. Others consider DataOps to be the process of data management.

We at LITSLINK take a holistic approach to DataOps. We consider it to be the process of bringing together people, process and technology to build reliable data processes that serve business needs and meet the company's goals. It is not a product or a single event but a methodology that drives automation and allows the departments to quickly and effectively solve the challenges associated with data processing.

## ❖ Why is DataOps important?

With the growing amount of data generated in each industry, DataOps will occupy a more prominent position. It allows unifying the company's data and narrowing its focus to delivering value to its client in such a rapidly changing environment.



**\$50  
million**

was invested in companies that provide  
a wide range of data operations, products  
or services

## ❖ How can you use it to benefit your business?



73% of companies are investing in DataOps

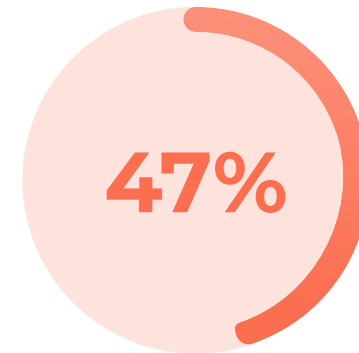
Also, you might consider developing your own DataOps product or service to meet challenges related to data operations. Different reports suggest that at least 70% of companies operating on the data science market are going to invest in DataOps startups. It means 2021-2022 is the right period to launch your DataOps product and occupy your niche on the market.

By introducing the notion of DataOps in your organization, you see what needs to be done, spot the latest market trends and apply them to your business. It provides you with a global perspective of your niche, which allows creating valuable products that your customers will adore.

### ❖ Trend #3: AI as a Job Creator

Technology has been widely introduced to make human labor more efficient by automating repetitive processes and making the work of employees easier. But paradoxically large improvements might yield a harmful effect on the labor more. The more jobs are substituted by technological innovation, the more people become unemployed. This has always been among many reasons why most employees act against full automation, which might lead to redundancy and job losses.

To figure out whether artificial intelligence will soon substitute most of the modern professions, we should look at the figures. One study suggests that nearly [47% of current US unemployment](#) is at risk of computerization, while another study shows that only [9% of modern jobs](#) will be substituted by technology in nearly 10 years.

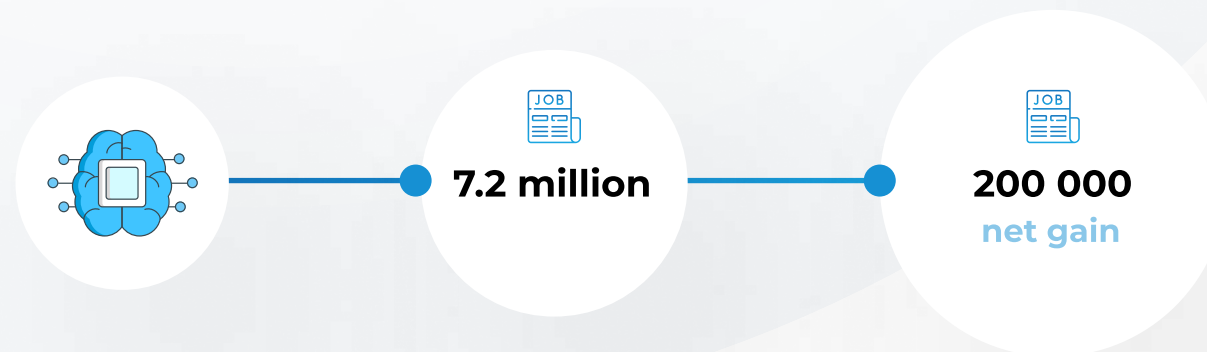


Employees are at risk of computerization

## Overview

If you take a look at the statistics to discover how the labor market has transformed during the last several years, you'll see that a bunch of jobs have been substituted with new tech. But at the same time, new professions appear, which explains as much as [30 to 50% of the growth](#) in the demand for more skilled labor.

New advancements in AI will lead to the generation of 7.2 million jobs, which is a net gain of 200,000 jobs.

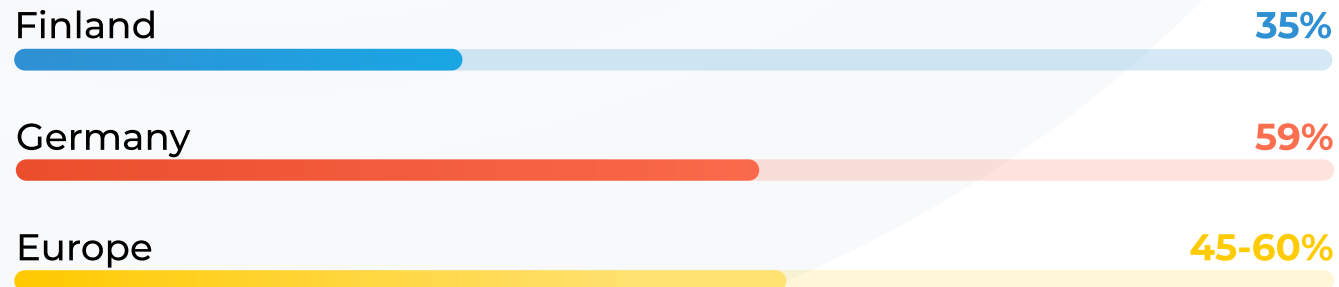




## Overview

Similar studies have looked at the impact of automation on employment in other countries and reached sobering conclusions: Automation will affect 35% of employment in Finland, 59% of employment in Germany, and 45 to 60% of employment across Europe. Critics have complained that prospective studies lack validation, but retrospective studies also find that robotics are diminishing employment opportunities in US manufacturing.

### Automation



## ❖ Overview

Thus, we may assume that, indeed, a big share of professions might disappear due to rapid penetration of AI and growing automation. However, the demand for skilled labor will increase since the market will require workers with extensive expertise in AI and ML. Artificial intelligence innovations create more jobs than kills. Thus, if you keep an eye on the trends and update your knowledge in AI improvements, your skills will match the market demand.

## ❖ Why is AI as a Job Creator so important?

The changes on the labor market might trigger a wide range of social issues, such as unemployment or skill gap. To meet this challenge, it is vital to understand how innovations affect industries, which transformations they trigger, and how companies will cope with them.

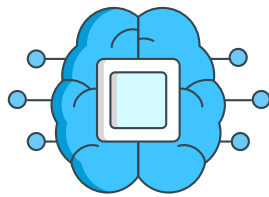
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If you work for an enterprise, you might use this trend to analyze the state of affairs in your company. How does AI serve your business?

- 1** How can you leverage the power of AI innovations to make your work more efficient?
- 2** Are there any AI products on the market to benefit your business? Do you require a custom solution?
- 3** If you introduce AI innovation, how are you going to retrain staff? What professions will be lost and which ones will appear?

## ❖ How can you use it to benefit your business?

No matter whether you own a startup, run SMB or work for a large-scale enterprise, keeping an eye on the technology trends will provide you with a helicopter view on the industry. In case you run a startup, you might consider developing an AI product that will contribute to boosting productivity of companies and, at the same time, creating new workplaces. Thus, you can launch an AI innovation and keep your company socially responsible.



*Critics have complained that prospective studies lack validation, but retrospective studies also find that robotics are diminishing employment opportunities in US manufacturing*

## ❖ Trend #4: Data as a Product

The majority of companies approach their data as an instrument for delivering valuable products. Some of them use it to extract insights, while others create products based on the data they source from different channels. But a few businesses approach data with a product mindset.

The [International Data Corporation](#) report states that a half of the global GDP will be digitalized by the end of 2021. It means that companies in all industries will be forced to adapt to this global challenge and find the right way to bring their business online. However, unfortunately, most of them approach digital transformation incorrectly, which often results in significant financial losses.

**A half of the global GDP will be digitalized by the end of 2021**

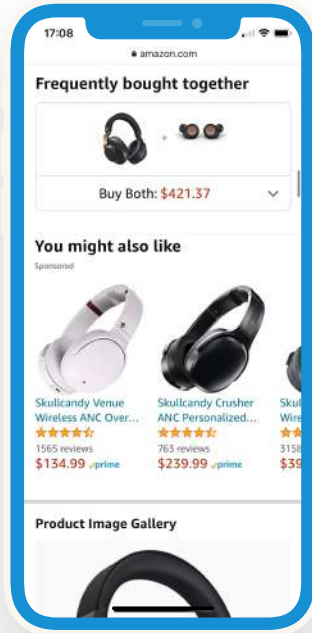


## ❖ Overview

Since adoption is the key metric of product development, being able to meet unmet needs of your target audience is a paramount factor in any product development methodology. And being able to bring digital transformation to their businesses requires top management to step outside their comfort zone and think what their customers need and want.

This is where the concept of “Data as a Product” is introduced to help companies adapt to this trend. Products field by big data might become a valuable way to meet the users’ needs. This “data moat” may help businesses to outpace competition with a unique solution that will drive their development and bring the company to the edge of innovation.

## Overview: Continue



Google and Amazon might provide great examples of successful digital transformation. Google search algorithms and an Amazon recommendation system still boost users' engagement and provide customers with valuable insights. This transformation from offline to online ideology was the core factor that changed the whole industry, providing small and medium businesses with more opportunities for successful growth.



Search Google or type a URL

## Overview: Continue

But the possibilities of data products stretch far beyond the tech giants. Currently, AI and ML solutions are accessible to startups and SME businesses alike.

Just have a look at [Coursera](https://www.coursera.org). The renowned educational platform successfully applied machine learning algorithms to help users find the best content and reach their learning goals while staying at home. In times of crisis, such resources have become an excellent way to promote self isolation and help those who lost their jobs to find new sources of income.





## ❖ Why is Data as a Product important?

This trend has become paramount in the times when self-isolation is promoted to stop the pandemic. When the whole world has gone online, it is vital to keep up with the pace of time and adapt to the global change. Data products are expected to be on the rise as they provide customers with new opportunities to digitize their business and find new sources of income in crisis.

### Companies that benefit from machine learning



## ❖ How can you use it to benefit your business?

By providing your target audience with valuable data products, you can fill in a promising niche in the market. For instance, educational platforms, sophisticated recommendation engines or niche social networks are gathering momentum now. Explore your industry, find unmet needs of your clients and build the solution that will improve their experience.

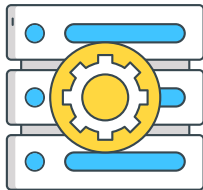
If you're concerned about the price, the good news is that AI and ML development have become more accessible than ever before. Thanks to big tech giants, who [contribute to the industry with open-source AI solutions](#), building a PoC starts at \$4 000, which means you can test it with your clients and see how it works on the market. After that, you can scale your data science solution to target specific customers' needs and wants.

## ❖ How can you use it to benefit your business?

McKinsey  
& Company

*[McKinsey report](#) suggests that only a share of companies use the power of “Data as a Product” approach to the fullest.*

Proficient data management might help to find micro markets and generate new revenue streams, which will positively affect the company's position.



*Data-Driven Decision Making (or simply DDD) can be defined as the process of making corporate decisions based on insights gained from data analytics rather than on intuition or observation only.*

### ❖ **Trend 5: Data-Driven Decision Making**

Decision-making is the process that often serves as a stumbling block for many businesses which are going through the transformation from small to medium business or even enterprise. While founders have used to make decisions based on their intuition or business acumen, large-scale enterprise requires a more sophisticated approach to this process.

## Overview

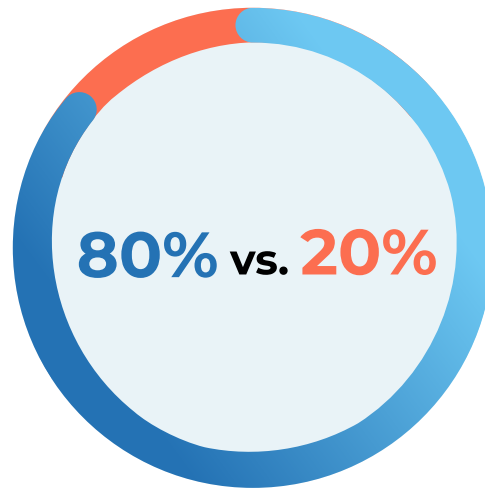
If you think that data-driven approach is implemented in 90% of corporations, you're probably wrong. The recent survey has shown that [58% of companies](#) base their decision on intuition or predictions that are not backed up by sufficient facts or figures. When it comes to strategy development or product development, intuitive decisions might only threaten your business increasing the chances for failure.



58% of companies base their decisions on intuition or insufficient facts.

## Overview

2021



- Gathering and structuring the data
- Data analysis

In 2021, data analytics is expected to be on the rise. The managers' attention should be devoted to the sources of data they use while making important decisions regarding the corporate strategy. Surprisingly, 80% of data analytics time is allocated to gathering and structuring the data, while only 20% is devoted to data analysis. When you handpick the right sources and categorize the information clearly, you get rid of all the barriers that prevent you from making data-driven decisions in your organization.

### ❖ **Why is DDD important?**

Data analytics is expected to be on the rise in 2021. It helps businesses to process large amounts of big data and enables them to extract meaningful insights which can be further used to develop valuable solutions. Many of the mechanics and data management processes have been automated with smart AI and ML solutions. Thus, if you conduct thorough research and use AI solutions to the fullest, you'll be surprised by the simplicity and affordability of the modern data analytics landscape.

### ❖ **How you can use it to benefit your business?**

Data analytics is an inexhaustible source of information that can provide businesses with valuable insights. Unfortunately, only a share of organizations use the full spectrum of data analytics that provides them with a significant competitive advantage. With such instruments at your fingertips, you're always in the know. You are always aware of the latest trends, which will enable your business to stay one step ahead of the competition.



## ❖ How you can use it to benefit your business?

If you wonder what tools might provide you with these insights, there are tons of them on the net.

The most widespread are Google Analytics, HubSpot, Microsoft Business Intelligence. However, none of them can provide you with a helicopter view on your business processes and explore the customer behavior to the fullest.



## ❖ **How you can use it to benefit your business?**

By the time your company turns into a large-scale enterprise, your employees will realize that they are using 20 different tools to gather data from different channels and formats. Before you get any insights, this information needs to be analyzed, categorized and compiled to be valuable for the enterprise. As you might have guessed, this process is highly time and resource-consuming, which means it affects the productivity of your company. And in this case, you will definitely need a custom solution that will align with your specific business goals and challenges.

You might also consider scaling this data science solution and use it as a product to grow your business. Such products are highly demanded on the market and the cost of development is rather accessible. Thus, it seems like a good strategy to develop a data analytics product that will soon generate profit for your business.

## ❖ Trend #6: AI Marketplace

The myth that artificial intelligence is accessible to large enterprises only has been already debunked. The global AI marketplace is growing, which means more and more SMBs and startups can enjoy the power of data science to create state-of-the-art solutions.

If you've been wondering how AI has become so accessible, there is a reasonable explanation. The trend for providing data science products as services on various open-source platforms is on the rise, which triggers wider adoption of new techs. In such a way, small and medium-size companies can benefit from using innovative solutions and build their own products based on AI services.

## ❖ Why is AI Marketplace important?

This trend makes artificial intelligence, machine learning and data science as accessible as never before. AI marketplace provides access to new technologies so that everyone can benefit from it and use it to develop their own products.

Some might claim that such a tendency might lead to growing competition, which might make it more challenging for new up-and-coming businesses to progress on the global market. But, at the same time, it triggers technological development, which is beneficial to the industry in the long-term perspective.

### ❖ **How can you use it to benefit your business?**

AI marketplace allows businesses to use AI algorithms developed by big tech companies for their own purposes. They can pay a fee and use ready-made products to strengthen their operations and enhance data management. Alternatively, you might choose to build your own product and pay a fee for using AI algorithms from a specific platform.

## ❖ Conclusion

Data science might serve as an inexhaustible resource to solve technical, economic and human challenges businesses face on the daily basis. While the majority of companies tend to underestimate the power data science delivers to the world of tech, those who manage to leverage it correctly gain solid expertise in the industry and bring their organization to the edge of innovation.

Data science trends mentioned above will provide you with a vision in mind. Based on the insights you get from LITSLINK Data Science Whitepaper, you can create the strategy that will drive innovation and transform your business with smart and demanded solutions.

If you have any additional questions, suggestions or an idea for a revolutionary data science solution, you can fill in the form and [contact our specialists](#) for quality consulting and development services.

THANK YOU!



# LITSLINK

## Let's Talk About Your Project!

If you want to scale your business, need expert advice or search for a trusted software development partner, reach out to us for high-quality services!



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