

The Industrial Revolution for Healthcare Analytics in 2022



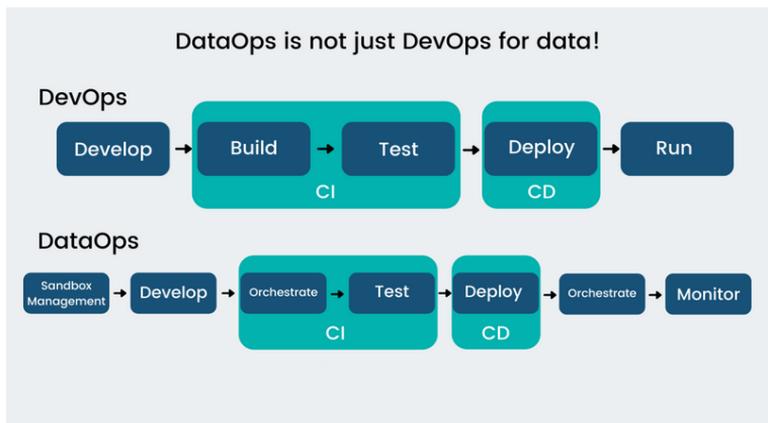
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Remember to recall all the new clothes you purchased last year, such as shoes, shirts, and (sweat)pants. Only a small percentage of those things were made by a skilled craftsman who shopped for the materials, sewed the garments together, and then personally delivered them to your home. No, because such individualized care would be prohibitively expensive.

According to a Statista survey, 34% of large healthcare organizations plan to use automation solutions by 2020. 75% of healthcare organizations with annual revenues of \$10 billion had already invested more than \$50 million in AI projects and research, according to a Deloitte pre-COVID survey. In addition, 73% of all healthcare organizations expect to expand their investment in AI development in the near future.

Now think about how many custom data marts, dashboards, and reports your analytics team has produced this year. For the most part, the analytics team at HCOs creates everything it uses by hand-coding SQL and starting from scratch with a view, data mart, report, or dashboard. Although DataOps has been around for a while, most healthcare analytics teams haven't fully embraced its tools, processes, and best practices.

Analytical products produced by your analytics team using DataOps are more likely to be high-quality and high-volume because of the emphasis on automation and contemporary software tools as well as process improvement in this development methodology.



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Reasons for which we believe it is crucial

As many as ten to twenty healthcare organizations may simultaneously work with ISmile Technologies Data Analytics and Informatics team on various initiatives. There is an increasing difficulty in coordinating an expanding team of people with diverse backgrounds and approaches to analytics development, even while this diversity has helped us get to where we are now.

A single person can't know everything about all of our projects, which are becoming increasingly complex and specialized.

- The relevant analytics technology stack
- Various complex data models
- Operational applications, workflows, and business models
- How each solution should be designed to grow and meet future needs

Analytical and informatics problems can be approached through the lens of systems, processes, and technologies with DataOps, much like how Lean Manufacturing revolutionized the auto industry by implementing methods that allowed the production of higher-quality cars, trucks, and other motorized vehicles in greater numbers. Any organization can develop better analytics solutions and gain greater value from their analytics investment with a system that supports data consumers, data specialists, engineers, architects, and scientists.



98% of Fortune 500 companies
rely on data to enhance their
customer experience
– Experian



More than 60% of data
analytics projects
are abandoned
– Gartner

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Improving Healthcare by using Data Ops

It's vital to keep these four things in mind while creating a DataOps strategy for your company:

Increasing the usability of information

It's essential to develop DataOps to ensure that the updated data is accessible to all the appropriate roles in the system simultaneously. The use of open, cloud-based architecture and data management platforms that allow for continuous data integration improves operational efficiency. Many organizations still store most medical data in the obsolete HL7 format. Fast Healthcare Interoperability Resources (FHIR) API adoption will expedite DataOps adoption.

Increasing the security of data

The backbone of DataOps implementation is the constant monitoring of available data and the implementation of stringent access restrictions by HIPAA and other relevant rules. An enterprise data catalogue that documents data traceability and governance systems are critical for proper information security.

Inspecting the Quality of Data

Closely check the data quality, minimize redundancies, and automate communication with stakeholders to ensure correctness. Data quality can be maintained by regularly adhering to business rules and comparing it to other data sources.

Experts in Data Operations

With the help of DataOps, you can automate the flow of data across your business, but you need DataOps specialists that can help coordinate the data flow predictably. To move from being data suppliers to builders of an ecosystem that allows and empowers everyone in the organization to draw insights, data teams must adopt the DataOps approach.

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The Benefits of DataOps in Healthcare

An effective DataOps strategy offers numerous advantages. To assist you in understanding why every healthcare business should implement one, here are the main advantages:

For workforce and bed capacity planning, predictive analytics

As a result of the quick and worldwide spread of the disease, several countries found themselves short on medical supplies, personnel, and infrastructure. Planning hospital bed capacity, staffing needs and equipment preparedness can benefit greatly from using dataOps. DataOps may make healthcare businesses more profitable and sustainable by allowing them to plan their staffing, equipment, and infrastructure needs predictably. This could potentially improve the quality of care and patient happiness.

Diagnosis from a Distance and Telemedicine

Remote diagnostics and telemedicine have become more common in the healthcare industry due to technological advancements. DataOps can assist in systematically keeping track of these patients and using it for analytics and other purposes.

A database of patient records

While protecting personal information, a patient data registry can significantly help advance clinical developments and identify new and less intrusive therapies, particularly for crucial diseases like cancer. The healthcare system can also benefit from it when looking for new disorders like COVID-19. Medical personnel and clinical researchers can access crucial patient data with a well-coordinated system like DataOps.

Enabling greater use of AI and other cutting-edge technologies

By implementing DataOps effectively, firms can take advantage of other cutting-edge technologies, such as AI and Machine Learning (ML). Multiple factors, such as demographics, population density, age, and gender, influence the transmission and treatment of every disease. It is possible to use AI and ML to gain insights into the elements that influence disease transmission by analysing enormous datasets. Using DataOps makes it easier to put these technologies into practice and make the most of their potential benefits.

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What to do Ahead of Time?

One of the best methods to prepare the healthcare business for the future is to implement DataOps. Potentially transformative for patient care. DataOps is a powerful tool for storing and analyzing data, allowing everyone in the system access to and the capacity to draw insights from the information. Now is the moment for all healthcare professionals to prepare for whatever may come next.

If you're interested in learning more about and implementing DataOps in your organization, we'd be happy to help.

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