



DRIVING INNOVATION WITH AI

GETTING AHEAD WITH DATAOPS AND MLOPS

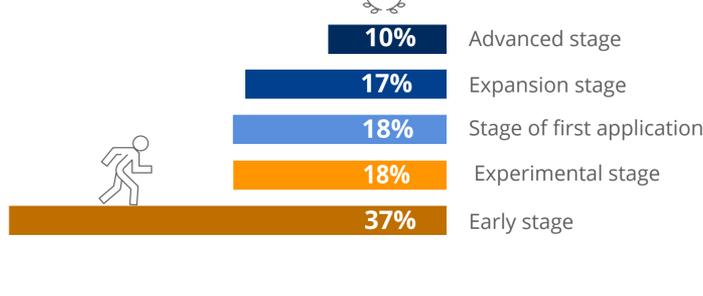
Artificial intelligence (AI), machine learning (ML) and data science are among a large group of buzzwords associated with major breakthroughs in the way business is done and better outcomes are achieved. In the study "Driving Innovation with AI" we examine the mechanisms behind those success stories and the methods that come into play to achieve them, focusing specifically on the concepts of DataOps and MLOps and their impact on the application of ML. This infographic depicts the key highlights of our global survey of 248 participants.



High-performing ML applications: anything but the norm

Despite the hype and numerous success stories over quite a period of time, the majority of companies seems to be stuck in an early phase of ML advancement.

How far have companies come in the application of machine learning (ML)?



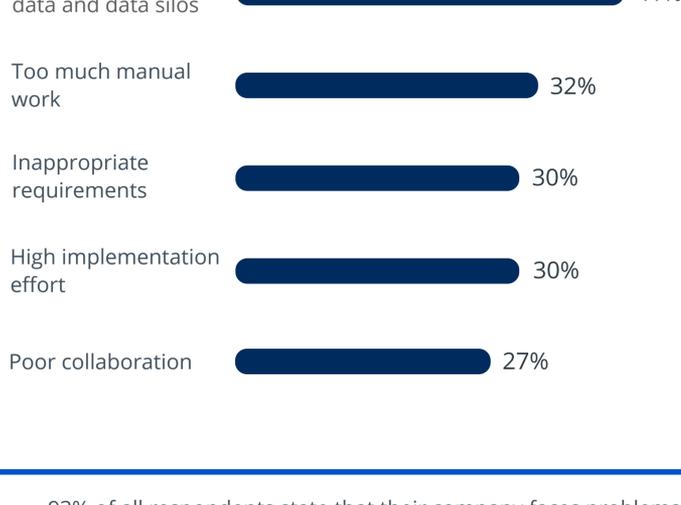
Most companies are only just beginning to tap the benefits of ML for themselves. 55 percent of the companies represented in this survey have not deployed a ML model yet and only 10 percent consider themselves advanced in this area. This is no surprise, as the complexity of successfully deploying ML models is often underestimated and there are many challenges to overcome.



Succeeding with ML: the challenges

Developing good models is not easy, but the challenge of making them work is even greater and fraught with problems.

Top 5 problems companies are facing when developing and deploying ML models



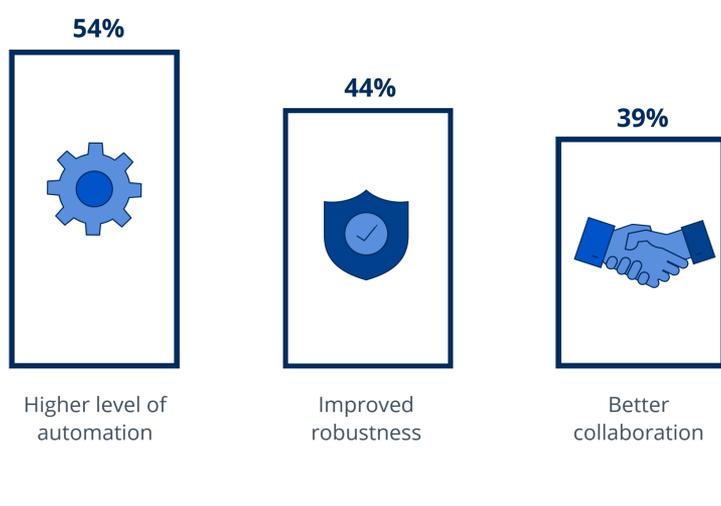
93% of all respondents state that their company faces problems adopting ML. The figure is even higher among companies who have already deployed their first model. Indeed, many companies seem to struggle to overcome these challenges and get stuck on their way to successful AI. They often lack an orientation framework and the relevant know-how. The concepts of DataOps and MLOps can provide the former and thus give an indication of the knowledge that still needs to be built up.



Getting ahead with DataOps and MLOps

DataOps and MLOps are effective approaches to solving many of the common problems with ML.

Top 3 improvements achieved with the introduction of MLOps/DataOps



97 percent of Data/MLOps adopters claimed to have achieved significant improvements through the implementation of Data/MLOps. The benefits manifest themselves in numerous ways, such as the ability to implement faster, collaborate more effectively, and better leverage the capabilities of software and technology.

To take advantage of these benefits and successfully implement ML models, BARC has some recommendations.



BARC recommendations



Developing ML models is the easy part. Get informed early about the challenges of deployment by learning about DataOps and MLOps. This will help to prepare you as well as avoid setbacks and unpleasant surprises.



Before relying on the results and proper functioning of ML models in production, ensure you have everything under control if something goes wrong. DataOps and MLOps can give you a good guide to figure out what can go wrong, how to avoid mistakes, and how to react quickly when the need arises. In this way, you can secure the safe application of ML and ensure its acceptance.



You can use open source as long as you can handle the complexity. Commercial tools, especially platform solutions, can help you to better cope with complexity and to deploy faster. Base your software selection on current and future requirements (e.g., monitoring and documentation). In terms of future requirements, you can also draw on the concepts of DataOps and MLOps.



Don't forget to strengthen support for ML and data science throughout the company. The technical and procedural implementation of DataOps and MLOps is an important requirement for the successful application of ML, but resistance and unreasonable fear among employees can establish an insurmountable barrier to progress.

The survey "Driving Innovation with AI" was prepared by BARC, an independent market analyst firm. The study is available free of charge thanks to the generosity of DataRobot, Domino Data Lab and ONE LOGIC.



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