coursera for Business

Why You Need a
Data-Savvy Organization
Transform your company to get the most value
from data, starting with business leaders

DESCRIPTION

Data is gold, but business leaders don't always know how to mine for it, or have the resources to do so. Achieving a data-savvy organization requires understanding exactly how data science drives business results. It also requires cultivating a data-driven culture where business leaders and technical talent have educational opportunities to obtain needed data science skills.

The amount of data in the world is doubling every two years, yet Forrester[1] reports that between 60 and 73 percent of all data within an enterprise is not used for analytical purposes. Data-savvy organizations — those with a data-first approach to decision-making from top to bottom — do a better job of extracting value from data, and it pays off.

- Construction giant Bechtel saved $2 million by switching to photo recognition technology for the inspection and labeling of customer site images.
- Elder Research, a data science consultancy, increased the fraud detection rate for a dental insurance client from 5 percent to 48 percent.
- Staples office supplies cut marketing campaign costs 25 percent using predictive analytics to more precisely target promotions based on geography.
- Netflix credits its recommendation engine for reducing losses due to churn by $1 billion annually.

A data-first culture is crucial to success in today's business environment. "Using data the right way can be the path to solving mission-critical business problems," says Andrew Ng, Artificial Intelligence pioneer, Stanford professor, and co-founder of Coursera. "Every person can and should gain the data skills needed to thrive in the AI economy. These skills will become the foundation of meaningful work in the near future."

Business leaders who want to remain competitive in the new, data-driven economy need to ask themselves some serious questions: How ready are we for the digital transformation on its way? Are we leveraging our data to the max? Are our people equipped to understand the insights data science can deliver?

Data-driven organizations are 23 times more likely to acquire customers, 6 times as likely to retain customers, and 19 times as likely to be profitable as a result.

— MCKINSEY

USING DATA SCIENCE TO DRIVE RESULTS

While many business leaders aspire to transform their companies into data-savvy organizations, the challenge is getting there. For most organizations, the first step is bridging the gap between practical business problems and the seemingly mysterious algorithms data scientists use to help solve them.

Business leaders need a solid grasp of what data science can do for them, how the strategic problems they care about—such as product-market fit or consumer behavior—can be addressed, what tools are available, and how these tools can be put to use by a skilled technical and analytical team.

BUILDING A DATA-DRIVEN CULTURE

Decision-makers must embrace a data-driven attitude, one that favors fact-based decisions over instinctual approaches. This begins at the top, where the CEO and executive team should strive for

[1]Forrester, Hadoop Is Data's Darling For A Reason, January 2016

Four classes of data science methods that can benefit a business:

CLASSIFICATION
This process determines, based on data, whether people, things or transactions belong to a predetermined category. It can answer questions like "Is this customer someone who will spend over $30 for a dinner out?," "Is this voter conservative?" or "Is this bearing likely to fail in the next 24 hours?" This helps leaders decide where to focus their efforts.

CLUSTERING
This process sorts people and things into categories that haven't been predetermined. For example, clustering can sort all of a company's retail customers into categories for more targeted marketing (those likely to respond to price, to quality, to special features, to convenience, and so on). Simply put, clustering makes large masses of data easier to manage.

REGRESSION ANALYSIS
This process predicts a quantitative value based on one or more input variables. For example, regression can be used to predict what a customer is likely to spend during an e-commerce website visit based on purchasing history, demographics, time of year, etc. When business leaders want a number that predicts the results of a decision, regression is the choice.

OPTIMIZATION
Optimization strategies are more sophisticated than ever, thanks to data science. Business uses of optimization range from managing factory production and distribution so that retail shelves and warehouses are full but never overstocked to managing the flow of data in microprocessors to give computer users maximum performance.

data-based decisions, and show support by dedicating time for direct meetings with data science teams. IT needs to provide better and quicker access to data via "data democratization" initiatives, and training needs to be made available for non-technical employees so they can gain insights from the data.

Coursera helps companies develop a data-driven culture with courses designed for business leaders and their teams. Courses in the Data Science for Business Leaders collection help leaders understand how to identify needed skills, build and manage data science teams, and understand where data science projects can flourish or fail. These courses require no training in math or coding, focusing instead on the practical uses of various data science techniques.

The deluge of data now available can seem overwhelming, but it presents enormous opportunities to data-savvy organizations that can turn it into business insights. Coursera for Business is ready to help you with courses that develop non-technical leaders as well as technical talent to succeed in this data-driven world.

ABOUT COURSERA FOR BUSINESS

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