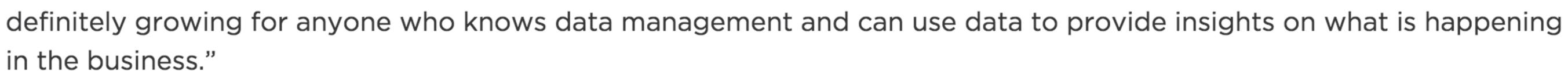# Build a Future in Big Data

Position yourself success by developing this in-demand skill set.

Data storage and management needs are growing exponentially—and so are career opportunities for people with the skills to handle all that information.

A 2014 survey by Accenture found that 41 percent of organizations don't have the people to implement big data solutions and 37 percent said they lack the talent to manage it. To fill the gap, 91 percent of organizations said they planned to increase their data science expertise in the near future—most within the next year.

"With the Internet of Things, pretty soon everything is going to be streaming data. There will be sensors everywhere, and they're going to give us more data than we know what to do with," says Luisa Recalcati, enterprise architect at Microsoft, Redmond, Washington, USA. "As a result, opportunities are definitely growing for anyone who knows data management and can use data to provide insights on what is happening in the business."

Here are four capabilities you need to build a big future in big data:

1. Data Governance

"You must be able to bridge the gap between IT and the business by translating the needs of the business into technology, and vice-versa"

Data managers who can lead and facilitate decision-making about data issues and processes are well-positioned for advancement, says Melanie Mecca, program manager, data management products and services, CMMI Institute, Pittsburgh, Pennsylvania, USA.

To hone your skills, join the conversations that drive the organization's data governance strategy. If your organization is building a new data warehouse, for example, ask to be included in governance groups to help determine what data will be shared, who will have access to it and how it will be controlled.

2. Data Modeling

Data modeling—the process of defining, analyzing and illustrating the relationships within organizational data—helps organizations define the structures in which data will be stored. That means developing data modeling skills is a great way to provide strategic value to your organization.

"Through modeling, you learn the business meaning of the data, inch by inch—the meaning of data elements and relationships between one set of data and another," Ms. Mecca says.

3. Data Management Methodologies

In today's data-driven economy, professionals who understand comprehensive data management methodologies have the edge.

And those with knowledge of CMMI's Data Management Maturity (DMM℠) model can help their organizations develop and implement data management best practices.

"You need to have a method in which you do the work," Ms. Recalcati explains. "You need to know, for instance, how to develop a database in the context of the overall system. You need to know how to collect needs and requirements. And you need to know how to implement, test and deliver."

4. Business Management

It can't be all about the technology, of course. Data managers must be able to translate the data deluge into business intelligence. Taking business management courses, earning an MBA or enrolling in industry- or skill-specific certification programs can help practitioners increase their understanding of business strategies.

They can also gain experience by participating in meetings and projects alongside peers across their company's lines of business

"You must be able to bridge the gap between IT and the business by translating the needs of the business into technology, and vice-versa," Ms. Recalcati says.

To learn more about data management methodologies, enroll in CMMI's Data Management Maturity Introduction or Data Management Maturity Advanced Concepts training course. Staying ahead of the curve will help you take the next step in your career.