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Mary Girsch-Bock • May. 31, 2022

Every time you swipe your credit card, use a loyalty card at your favorite store, or purchase an item online, your data is being collected. The amount of data collected daily is enormous and is provides nothing of value unless it is properly analyzed and used in the course of business. For example, grocery stores track items purchased each time your card is used when you shop. But if the data collected in not used to better the customer experience or provide better insight into customer purchasing habits, the data is useless.

What is big data?

There are three main sources of big data:

1. **Transactional** – Both online and offline transactions such as invoices, payments, and receipts are regularly collected. However, anyone collecting transactional data will need to find a better way to utilize the information provided in the transactions collected.

2. **Social media**– Social media platforms are one of the main sources for big data, with tweets, retweets, user comments, and uploads collected daily. Particularly valuable when looking for marketing trends, social data provides an inside look into consumer behavior.

3. **Machine data**– The collection of machine data is expected to grow in upcoming years as more data sensors are installed on a variety of equipment ranging from medical devices to cameras.

Data can also be collected from barcodes, government agencies, and even website visits. There's no end in sight for how or where you can collect big data. The challenge is what to do with it once you have it in your possession.

What are the benefits of collecting big data?

Why should you collect big data at all? Turns out that there are a lot of reasons why taking the time to collect, parse, and analyze big data can be beneficial. Collecting and analyzing big data can:

- Streamline current processes
- Improve strategic planning
- Create more accurate forecasts
- Identify possible risks and take mitigating action

- Achieve greater insight into results

How is the use of big data impacting accounting firms?

The use of big data can help accounting firms streamline internal processes, significantly reducing paperwork while providing clients with more accurate information in real-time. Using big data can also improve the client experience, with more accurate predictions and more personalized services available.

The use of data analytics for example can automate the audit process, using actual data instead of a small sample, resulting in more accurate predictions, increased compliance and a reduction of errors. Big data can also help identify risk, allowing firms to better prepare clients for possible adverse conditions down the road. And with data available in real-time, more informed business decisions are able to be made.

Are there any risks in collecting big data?

Collecting big data is not without risk. If you're going to use collected data, you must first determine that the data is clean and not filled with errors. Also keep in mind that once data is collected from various sources, it will need to be securely stored. 92% of data breaches that have occurred in the first quarter of 2022 have been due to cyberattacks, so if you are going to collect big data for use in your firm, the proper security measures must be put into place.

Security risks aside, there are also some ethical issues you may need to address. Even if you keep data safe from hackers and other cybercriminals, you also have a responsibility to use the data ethically. Before obtaining and using big data, be sure that you have obtained consent for using that data and are not violating any privacy laws when doing so.

Is the reward worth the risk?

There is vast potential in using big data, but along with the potential, there's also

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