Leveraging Big Data for Success in Pharma

Every second, in every corner of the world, data is captured. In its simplest form, it's a farmer tracking days during the rainy season. The other end of the data spectrum is far more complicated and even mind-boggling to many. It's referred to as "big data" and is defined as extremely large and complex sets of numbers and figures, generated by practically anything and anyone.

Big data has a wide-reaching and powerful effect on business, the economy and innovation. To stay competitive, companies of all sizes and across a large variety of industries must capitalize on the bits and bytes at their disposal.

## PHARMA'S BIG DATA OPPORTUNITY

As an industry that is flooded with data, pharmaceutical companies have the unique opportunity to leverage big data into actionable business intelligence. According to PricewaterhouseCooper's (PwC) 2014 global data and analytics survey, the insights and intelligence derived from big data sets can inform strategy decisions, spur innovation, enhance customer relationships and bolster operations.

All of these benefits would be welcome to pharma, an industry that faces many challenges including high costs, countless regulatory hoops and an arduous process to market. Leveraging big data can help pharma organizations more efficiently manage all three of these issues, and many more, allowing them to more effectively bring pharmaceuticals to market first.

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Why is this so important? Not only does being first to market allow pharma companies to increase their bottom line, it also means that pharmaceuticals can more quickly get into the hands of those who need them, leading to advances in the treatment and cures of disease.

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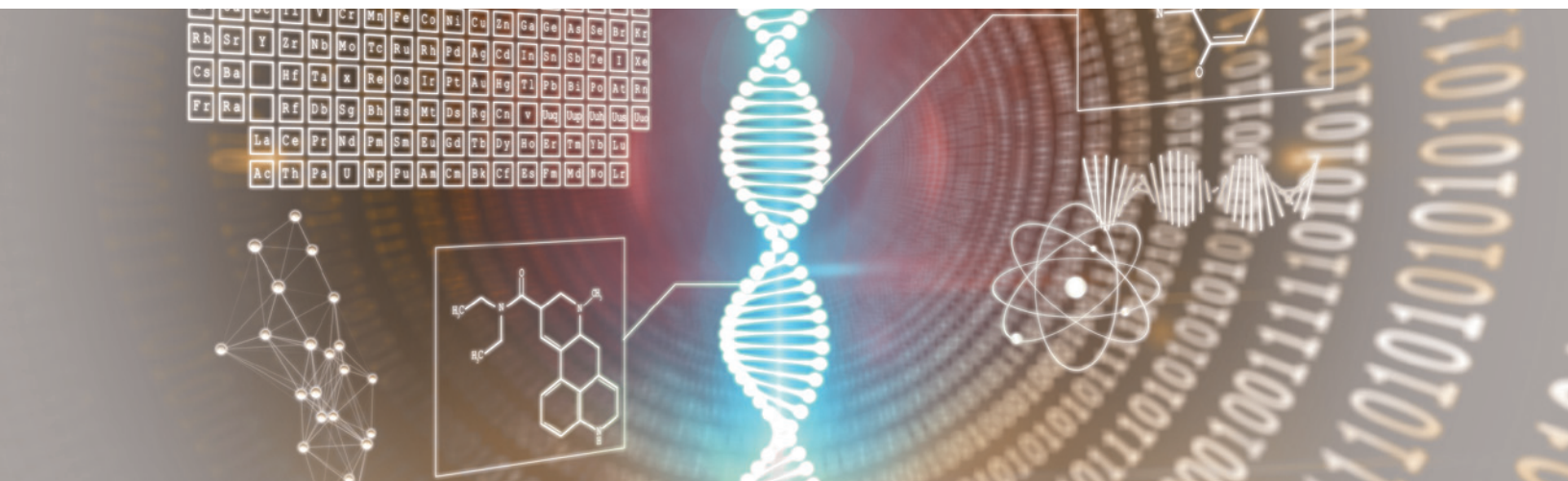
BIG DATA CHALLENGES, SOLUTIONS

Leveraging big data for success in pharma is easier said than done, though. Many organizations in the industry face roadblocks as they attempt to evaluate the explosion of big data in a meaningful way.

According to the same 2014 PwC survey, many pharmaceutical executives struggle when it comes to making greater use of data and data analysis when making big decisions. More than one-quarter (26 percent) said it's difficult to assess which data is truly useful, while nearly four in ten (37 percent) don't trust the data, stating that its quality, accuracy or completeness isn't high enough.

This lack of reliance on and skepticism of big data is likely due to several technical reasons. For example, the legacy systems that many pharmaceutical companies currently use compare heterogeneous and disparate data. This makes lining up all the necessary information, from discovery to patient usage, incredibly difficult.

Scaling issues are also a challenge to pharmaceutical companies, as many current data warehouse techniques cannot handle all the volume; it's costly and time consuming. Therefore, big data must be harnessed as value-adding analytics, so it can become well integrated across multiple source systems and all stages of the value chain.

This is where solutions such as Hadoop work to make it all happen. It provides an open-source implementation framework for reliable, scalable, distributed computed and data storage. This works due to parallel processing using a distributed filing system framework like Map Reduce, breaking huge tasks into smaller ones.

WHAT'S NEXT?

Knowing what solutions to implement can be just as challenging as diving into big data in the first place. When big data is harnessed in the right way to already existing analytics, though, it can be successfully combined across multiple source systems and down the value chain. And in the long run, solutions that leverage big data like this are less expensive and more available for analytics, which helps pharma deliver more effective and reliable products.

Big data is uniquely poised to upend the pharmaceutical to-market process, resulting in more successful pharmaceuticals, increased speed to consumers who need them and the potential for never-before-seen innovation. The key will be finding the right experts to help tap into the data that matters.

For more information on how PSCI can help decode your big data, please visit www.psci.com or call 302.479.9700.