

Leveraging Artificial and Business Intelligence to Drive Productivity Improvements



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Jaime Velez, Co-founding Partner and Senior Consultant at Operations and Quality Systems Improvement Experts (OQSIE), will join us at the 2018 American Medical Device Summit, where he will speak about "Leveraging Artificial and Business Intelligence to Drive Productivity Improvements."

Prior to the summit, we spoke to Jaime about his topic, how medical device manufacturers can begin to do this, and how OQSIE can help.

How do you define artificial intelligence (AI) and business intelligence (BI)? How do you distinguish between them and how do they work together?

AI is very broad term that can encompass many things. Generally speaking, it's software that thinks, in some ways, the way a human expert would. The critical business value of AI is that it can generalize and recognize common patterns--thus being able to automatically spot

anomalies or to make recommendations based on past experiences.

BI tools are designed for decision makers (of all levels)—with actionable information about company performance. Actionable means that the information can be acted on and presented in a way that is understandable to the person receiving it. It's about using data to drive relevant conclusions to better understand, and grow, your business.

AI excels in interpreting very large and complex data sets. That information can then feed into a BI system, which applies algorithms and rules to identify positive or negative trends and alert leaders to specific areas. By combining AI and BI, companies get the best of both worlds—speed and scale. They benefit from the massive data-processing capabilities and speed of computers (AI), combined with actionable, business-impacting information driven by analysis, exception identification and escalation protocols (BI).

What is the number one reason to begin thinking about leveraging AI/BI?

Speed is the biggest reason. Today's businesses have massive amounts of information generated by more and more sources. In many ways, there is a human factory of people spending significant amounts of time accumulating, organizing and manipulating data. Instead of using data to drive rapid decisions, achieve business objectives and generate a profit—companies are spending time and resources to find relevant information buried in their data with often such a lag in time that the issues needing attention have happened without a timely response.

This is where AI and BI can make a huge impact—by making large amounts of data actionable. A combination AI/BI system assimilates and analyzes large data sets, but also allows for the right conclusions to be consistently made, at the speed of computing. It finds patterns in data, augmenting human analytics and automates escalating the exact piece of information, in the most appropriate way, to the right person.

What are some ways medical device manufacturers are already leveraging AI/BI?

A survey of life sciences organizations shows the majority now describe themselves as “very data driven” but while 70% of biotech and pharma companies say they are using data effectively, only 30% of medical device companies say the same. We hear the same types of concerns from our clients.

Many companies employ some form of Master Data Management—using multiple data sources to rectify poor data quality and correlate information. However even the most robust MDM solutions rarely incorporate all the data sources and repositories with a company, preventing it from being a single source of business truth.

The integration of AI and BI systems is still in early stages within medical device companies. The first step is awareness of the possibilities for AI/BI systems and the second is a company-wide commitment to data as a common asset, designed to be shared not siloed.

What are some ways medical device manufacturers could improve by leveraging these things? What's the best place to start?

Medical device manufacturers can quickly benefit from an integrated AI/BI system in terms of productivity, exception identification, line efficiencies—all things that directly impact the company's bottom line.

The best way to start is by understanding all the data sets the company relies on and then connecting them to create one version of the business truth. Companies are often shocked to find out how many secondary reports, pivot tables and spreadsheets are created by well-meaning employees in order to gather critical data.

Once all the data feeds are centralized into a single source—a mechanism for creating actionable insights must be created. This is where the combination of AI and BI allows for insight analysis, exception filtering and automated escalations. By analyzing anomalies—both positive and negative--and comparing those to trends, history and goals, the AI/BI system can quickly escalate critical information to the person who can act on the data.

The true goal of an enterprise-wide data system should be quickly get the right information, at the right time, to the right person. This is where automated systems excel—in cross-referencing large data sets, comparing them against norms, classifying the outcomes and then escalating appropriately.

How does OQSIE help medical device manufacturers to leverage AI and BI?

Many ways have been covered above. OQSIE allows companies to quickly gather all the data scattered around their business to identify areas of improvement--driving top line growth and bottom line savings. Beyond data aggregation and discovery, we partner closely with clients to understand the key drivers of their businesses.

Proprietary algorithms learn what typical and normal performance looks like—and how that changes over time. Then, identifying notable exceptions—both positive and negative—compared to history, trends and goals, and escalating to relevant parties makes the OQSIE solution unique.

It's estimated that up to 80% of people within an organization spend 30-40% of their time reporting, analyzing and maintaining data. The OQSIE solution frees up employees to work on growing the business and being proactive, rather than being reactive and trying to find problems. Simply put, it increases the speed that medical device companies can run and radically improves productivity and profitability by deploying human capital against bottom line results.

By freeing up significant employee intellectual capital and re-focusing those efforts on high-value work, OQSIE helps businesses grow, improve profits and make people's jobs more value-added. And because the solution is tailored to their business and running 24/7—it ensures the right people get the right information, at the right time, to improve operational efficiency.

We were founded on expertise and focus on improving operational performance. Helping clients understand what is driving their business and detecting abnormalities across different data sets and systems is critical to maximizing operational excellence.

What are you going to talk about at the American Medical Device Summit in October?

We will discuss breakthrough best practices to improve productivity and overall KPI performance by leveraging the data existing in their business. These insights can radically change the speed, insights, and actions of their businesses.

The session will include real-world examples of how proactive action—including real-time alerts and exception escalation—has rapidly accelerated business trajectory leading to outcomes from doubling production to radically improved productivity, increased output and line speeds.

To learn more, join us at the American Medical Device Summit!

[View the Program](#)



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