For Immediate Release

Brown Smith Wallace Advisory Services

Artificial Intelligence in Business–Beyond SciFi

By Jeff Gusdorf and Maggie Peters

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Does Artificial Intelligence (AI) in business sound like the stuff of science fiction? For smaller companies it does, since the focus is on competing with technology heavy companies like Amazon.

How can AI be a realistic or useful way to optimize business intelligence and processes when most distribution companies are focused on replacing legacy ERP systems and implementing warehouse and e-Commerce solutions?

At the same time, leading tech companies are propelling businesses into the future with their current and upcoming implementations of Cloud technology, machine learning and AI. Distribution and Manufacturing companies need to understand how these advancements will impact them in the future and see how these new technologies will change their competitive landscape.

Cloud-Based Technology

For all the pop culture jokes thrown around today about how little we understand the Cloud and how it works, the truth of the matter is that many companies are adopting Cloud-based services. These services offer the convenience of buying and implementing only what is currently necessary or what fills a functional gap in their current ERP system.

Cloud technology makes it possible to get smaller bite-sized solutions that can be purchased as necessary, making Cloud Technology more accessible to different sized companies. Most software companies offer a series of application solutions that can be purchased separately and integrated into a company's existing ERP system. This is the convenience seen with this kind of technology, and the biggest selling-point for adopting it.

Cognitive Services In Business

The current trajectory of AI in business is shifting from technology that requires configuration to be effective, to technology that by its own cognitive nature, can train itself over time. By definition, Machine Learning is a technology's ability to learn without being explicitly programmed. Not only does Machine Learning work without the step of configuring it, it's a system that will improve over time, learning the consumer's interests and patterns. Several different implementations of this kind of technology:

- **Pricing**, using historical sales, lost sales, and other data to automatically determine the best price to maximize profit for each customer and product.
- **Recommendations**, enabling distributors to cross sell and up sell products that can be recommended to customers without the need to preconfigure all of the possible combinations.
- **Discoverability**, learn from click patterns to increase a product catalog's discoverability and boost sales. It allows businesses to upsell products that can be recommended to customers based on previous searches or previously purchased items.
- **Using bots for customer service questions**, improving the turn-around time for answers and eliminating the need for several representatives to be available to assist, if needed.

Whether it is a recommendation engine that identifies frequently bought together products or a bot customers can speak to for immediate assistance, these services are working to greatly reduce the expense of using human resources to answer common questions. However, some businesses have expressed pushback at the notion of having an AI for customer interaction, seeing human resources as their highest selling point in a digital heavy age. Still, with Amazon being part of nearly every consumer's life in some capacity a business without a website or an ability to take E-orders in this day and age is only hurting themselves.

Not every customer needs or wants a personal interaction when they are browsing, nor is every person who comes to your website past the browsing stage in their buying process. For those customers that might choose to look elsewhere, using a person-to-person interaction would be wasted. Instead, the idea of determining customer profitability and tailoring AI services to that, cutting down on the human resources required while still allowing highly profitable customers to have personal interaction and a person to speak to when needed.

Companies pushing back on adopting cognitive, Cloud-based solutions has less to do with the companies and more to do with their own marketing. It's proving difficult for departments to catch up with the new kinds of technology that software vendors are using in their products, and even more difficult to market for these products that have not been widely tested among consumers due to how recently it is being released in relation to the tried and tested methods ERP vendors have been using for years.

The Future Of AI Is In Technology Stacking

There have been several early adopters of the Cloud technology. Many companies looking to purchase solutions are businesses that are already in the process of moving from an outdated system to new tools. These companies are ready to adopt purpose-built ERP products that can inter-operate with different Cloud products that can be purchased from third-party vendors, also what is referred to as stacking technology.

Conversational User Experience, Augmenting, Automating, and Advising

In the past, companies have put their digital storage into Data Warehouses, organized and structured stores of past information that could be mined for analytics or reporting purposes. Today, Cloud services use what is known as the "Data Lake", an open access source, throughout their system. The "Data Lake", as the name suggests, is a natural collection of data existing in its raw form that can be accessed by all Cloud programs and Operating Systems without prior structuring.

AI uses the "Data Lake" as one of its primary sources of knowledge and machine learning. At its core, AI works as a way of automating processes across the Cloud, creating a conversational user experience that eliminates unnecessary search times and learns how its users work within the system to better augment problem-to-solution processes.

The conversational experience, is one of four ways in which Cloud systems are used to maximize human potential, the other three include augment, automate, and advise.

- **Conversational User Experience** — This is the two-way conversation AI creates with the user, using machine learning to pick up information and voice recognition to create a hands-free navigation easy for new users to pick up.

- **Augments** — AI is available throughout the entire Cloud Suite and is informed by information gathered all through the suite.

- **Automates** — AI can pick information given during social conversations, such as an employee asking a supervisor for information on a product or client. AI can then provide this information through a search, cutting down a majority of an employee or customer's research time.

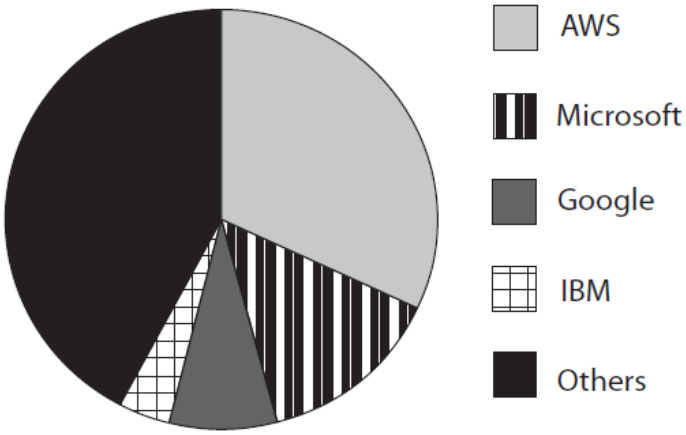
- **Advises** — AI's ability to learn from conversations and gain information from social knowledge means that the system stores the kind of industry knowledge that experts have on specific business challenges from years of experience. AI makes this information available to any employee that needs it to make knowledgeable business decisions.

AI uses all of the above to create an intelligent and informed recommendation engine that can quickly put to use expert information without a user needing to take the time to reach out or research. Furthermore, AI has a video recognition feature allowing it to process information from watching a process that has been recorded, such as a YouTube video or training video. AI makes quick work of creating easy access to data that will create a more efficient and streamlined way for employees and consumers to interact and do business.

Adopting AI

There are many customers who are hesitant to adopt machine-learning technologies for their businesses. However, customers are beginning to adopt the Cloud due to the competition created by other companies taking that plunge. Some customers that aren't ready to shift entirely to Cloud systems are looking at the efficiency, and have become more willing to work automated technologies into their strategies. A trend is beginning to form and Cloud-based ERP technology is beginning to be recognized for its merits in business. Like with many shifts to the technology we consider commonplace today, once people get past the culture-wide apprehension of the new and the unknown, the shift to using Cloud and Machine Learning will likely be a rapid and wide-spread one.

Global Cloud Infrastructure Services Market Share for Q4 2017



Source: BI Intelligence, Canalys, 2018

Adaptive User Experience

As mentioned, the "Data Lake" is a widely unstructured repository of information. Because of that, analytical products are necessary to assist users in navigating and interacting with the data that resides there. Business Intelligence and Analytics platforms are used with Cloud systems to manage information stored in the unstructured "Data Lake". This automates the process of making that data analytically ready to be received by Cloud systems, regardless of its format or source.

Business Intelligence and Analytics platforms use interactive displays and the ability to easily manipulate uploaded information. This enables users to work with the tools the user prefers to analyze the data. The adaptive user experience means that Cloud users can make changes to the data that has been uploaded into the "Data Lake" at any time, creating a channel where consumers of this information can have an open interaction with the data that feeds into front-end applications. This results in consistency throughout the systems and better alignment throughout the ERP platform.

Looking Forward: AI Is A Part of Everyday Operations

ERP Vendors are investing in Cloud and AI technology and advancing their existing platforms. At Brown Smith Wallace Advisory Services, we are seeing the biggest impact of these new technologies in analytics and business intelligence. This is the next wave of technology that distribution and manufacturing companies will need to become familiar with.

We welcome the opportunity to work with you. For more information or to learn more about our capabilities, visit our website at http://www.software4distributors.com/vendor/ss_consulting.aspx and contact our team at 314-983-1200.

About The Brown Smith Wallace Advisory Services Business Processes & Systems Group
We have been serving the distribution community for almost 28 years through the publication of the Distribution Software Guide, writing articles and industry research, giving complementary advice to distributors, and providing fee-based consulting services to companies who need assistance.

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For More Information Contact Our Team Below:

BROWN SMITH WALLACE
THE FIRM FOR GROWTH.™

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Jeff Gusdorf	Sara Jay	Todd Snover	Henry Struckel
314.983.1208	314.983.1393	314.983.1244	314.824.5285
jgusdorf@bswllc.com	sjay@bswllc.com	tsnover@bswllc.com	hstruckel@bswllc.com