

Alphabet Soup

Add AI, ML & IoT to your long list of acronyms

by: Dennis Amorosano, Dendog Strategy Insights LLC

When I was a kid, I used to love alphabet soup; all those interesting words and acronyms would pop up seemingly out of nowhere. A lot has changed since then, which is also the case for the office technology industry. During my early days in the industry, the dominant acronyms were CPM (copies per minute), PPM (pages per minute) and MTBF (mean time between failure). While all of these acronyms are still around, the nature of technology evolution is such that a once simple set of acronyms has now been amended to include things like API, ACT, CPU, DNS, DHCP, IPv6, LDAP, MEAP, NAS, SMTP, TCP/IP and VoIP, to name a few.



If you were expecting me to define all of these acronyms in this article, think again. For those who have been in the industry a while, these are acronyms you have likely encountered and they should be somewhat familiar. If not, be thankful you have a digital specialist or network engineer to deal with what can often seem like a foreign language.

While the acronyms outlined above are representative of technologies and capabilities that have ultimately become standard across the hardware in today's industry, there are a new set of acronyms making their way onto the stage that are destined to have an even greater impact than those of the past.

As with any new set of technologies, it is not the technology itself that is of great importance with respect to our interaction with customers; it is the business outcomes afforded by the technology that matter, as this is where true value lives.

Let's look at AI. By now I am sure you guessed this to be artificial intelligence. AI is one of the most important innovations to impact the technology landscape. It is already having a profound effect on our lives as we interact with AI-based systems on a daily basis — in many instances, in a completely transparent way.

As indicated in an April 2019 Business News Daily article by Adam C. Uzialko titled "How Artificial Intelligence Will Transform Business": "In business, artificial intelligence has a wide range of uses. In fact, most of us interact with artificial

intelligence in some form or another on a daily basis. From the mundane to the breathtaking, artificial intelligence is already disrupting virtually every business process in every industry. As artificial intelligence technologies proliferate, they are becoming an imperative for businesses that want to maintain a competitive edge."

While self-driving cars and Terminator-like predictions get most of the attention related to AI, the reality is that we are already seeing this technology, in its many forms, make its way into the office technology industry. From smart devices that are capable of serving up Alexa-like interactions to software technologies that adapt to user behavior and activity, AI-based systems are beginning to make their way to market and the benefits they offer relative to employee productivity are significant.

Machine learning (ML), a type of AI, is the most common incarnation of AI we see in today's market. As defined in the article referenced above: "These types of artificial intelligence are algorithms that appear to 'learn' over time, getting better at what they do the more often they do it. Feed a machine-learning algorithm more data and its modeling should improve. Machine learning is useful for putting vast troves of data — increasingly captured by connected devices and the internet of things — into a digestible context for humans."

We see ML making its way into many software technologies used to handle repetitive tasks. One such example is in the document capture market, where ML technologies are being used to identify content contained within both paper and electronic documents and take specific action related to such content. This is ideal in areas like accounts payable, where invoice data can be captured and payment processes automated based on the nature of such information. Of course, ML-based systems have "learning loops." As a result, in cases where the systems make mistakes, the correction of such mistakes are fed back into the system, helping the software to gain accuracy over time. With training, it is expected that many of these systems can deliver accuracy well above 90%.

The implications for ML are significant and it is quickly finding its way into software solutions including capture, content management and in a breed of new software purpose-built for vertical-industry applications and business processes. There is little question we will also see this technology eventually make its way into many of today's MFP functions.

No alphabet soup discussion would be complete without the internet of things

(IoT). It may not be the most compelling name, but the IoT is reflective of technologies that can be network-connected and remotely managed. The range of things falling into this landscape is enormous and ranges from home automation technologies to aircraft engines, from medical equipment to sensors and, yes, to printers and MFPs. In fact, virtually every MFP sold today has the ability to connect to the IoT and, as such, affords dealers, manufacturers and customers the potential of managing such technology remotely.

To put IoT into perspective from a business standpoint, Gartner assesses that 20.8 billion connected things will be in use by 2020, while total spending on IoT devices and services reached \$3.7 trillion in 2018. That is a lot of things.

The office technology industry is just a small contributor to these numbers, however the implications for IoT devices within the industry is significant. With the ability to connect to and remotely manage devices comes the ability to also harvest device operational data. When used effectively, this data is being used to analyze customer usage patterns and, in combination with AI, is leading to predictive maintenance capabilities. For customers, this ultimately means greater reliability and uptime, which becomes increasingly important as MFPs play a prominent role in mission-critical business processes.

At its most basic level, the emergence of new technologies and their related acronyms brings new opportunities. In

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fact, I would argue that the opportunities related to AI, ML and IoT — if harnessed by traditional industry players (including dealers) — will open new avenues of business that would not have been thought possible just a few short years ago. While the technologies are different, the process of entering new markets and exploiting such innovation is similar. What is unique, however, is the implication for customers, as AI, ML and IoT are all

poised to help them make dramatic leaps in the effectiveness of operating their businesses.

As with any new technology or innovation, it will be interesting to see how things unfold in the market and the ways in which such technologies make their way into products and services. Of equal interest will be the ways in which manufacturers and dealers capitalize on such innovation in an effort to capture customers in an ever-increasing competitive landscape, and build new sources of revenue and profit.

While I wait for my alphabet soup to cool, I can already begin to see a new set of acronyms coming to the surface. Better eat quickly! ■

Dennis Amorosano is the president and founder of Dendog Strategy Insights LLC, a management consulting firm focused on strategic planning, new business development and go-to-market execution. Providing services in the areas of strategic business planning/execution, new business development, content creation/marketing automation and technology sourcing support, Dendog Strategy Insights brings 30 years of technology marketing, sales, product planning, software engineering and professional service experience. Amorosano can be reached at damorosano@dendogstrategy.com or (631) 252-0102.

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