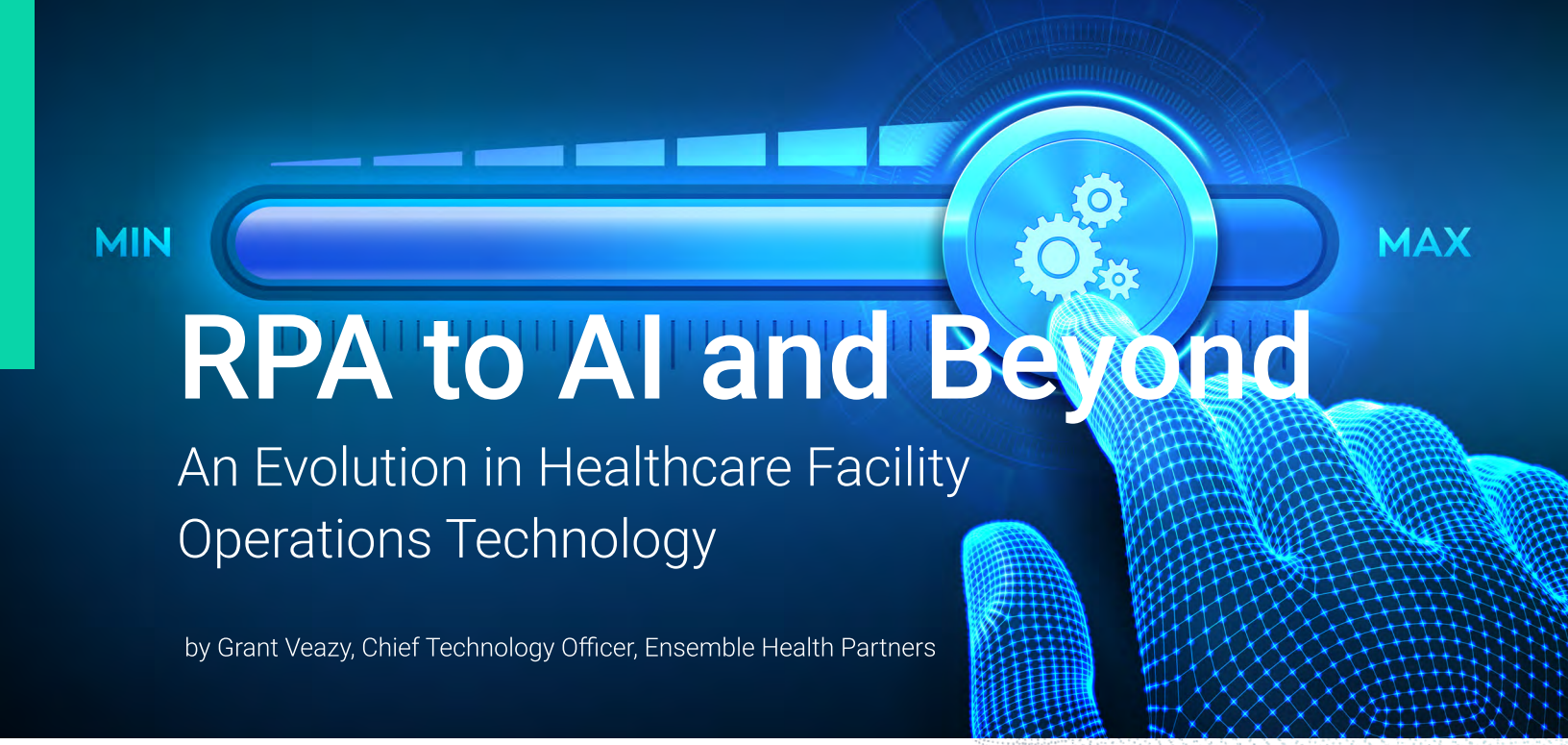

RPA to AI and Beyond

An Evolution in Healthcare Facility Operations Technology

by Grant Veazy, Chief Technology Officer, Ensemble Health Partners

Over the past decade and a half, we've seen incredible advancements in healthcare operations technology. As costs and regulations across the board have risen, these technologies have allowed modern providers to increase employee efficiency, reduce redundancies, streamline patient care, properly collect, share, and analyze medical data and, importantly, boost bottom lines.

But with an abundance of new technology on the market, it begs the question: Which tech should my facility employ and what can I expect from it?

Right now, there are two leading business efficiency technologies dominating the healthcare industry: Robotic Process Automation (RPA) and Artificial Intelligence (AI).

It's estimated that by 2028, the market for RPA will reach $14.5 billion, growing at a compound annual growth rate (CAGR) of 32.8%. Perhaps even more impressive, AI is growing at a CAGR of 48% and will reach a $64 billion valuation by 2027.

Both cost-cutting technologies have seen strong integrations into the operational and patient care systems of providers nationwide. The reason for this is simple. They work.

However, when put into practice, RPA and AI are essentially "apples and oranges." There are striking differences between them, and you should be aware of them before deciding on the solution that best fits your corporate goals.

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Let's start with RPA. Robotic Process Automation is a front-office software solution with a seemingly simple goal: eliminate mundane, repetitive tasks from human hands, and operate faster and error free.

RPA is process centric, meaning the tasks it performs are rule-based. While it does carry out front-end operations much more efficiently, it can't engage independently of its written rules. RPA only utilizes structured data and does what it's told, nothing more, nothing less.

Your claims department, for example, may be processing perhaps hundreds of claims, accounts payable and accounts receivable, daily. As you know, these high-volume human tasks are often riddled with errors. Errors that could potentially delay payments-due and throw off balance sheets.

But, while RPA is a front-office task master, AI is far different. It's the digital brains of an operation and represents an evolution in automation technology.

With RPA, the software can be tasked with performing these very same repetitive, high-volume front-end functions. It can identify transactional information from any number of different channels, matches the data immediately to the proper "client" and can, depending on its programmed task, instantly send either payment, invoices or additional queries, error free.

Of course, each RPA can be tasked to perform different operations. But in this instance, what once took a claims or accounting team a full day to complete, can now be done in perhaps minutes, largely without making a single mistake.

But, while RPA is a front-office task master, AI is far different. It's the digital brains of an operation and represents an evolution in automation technology. Unlike RPA, AI is data centric, learns how to accomplish tasks and is largely self-sufficient.

AI processes unstructured data from an unlimited number of sources by creating its own logic. It mimics the human thought and learning process by continually analyzing data, decoding patterns, and predicting what could, or should, happen next AI is a non-rule-based, complex problem solver.

Healthcare providers and facility staff are now spending an ever-increasing amount of time on administrative tasks at an estimated 30% of all healthcare facility costs.

As you know, in the healthcare business, time is money. Because of its real-time data analysis, learning and predictive capabilities, AI allows providers to streamline the entire patient experience, manage physician and staff time and reduce operational costs across the board.

AI can help automate some of the more complex tasks that RPA cannot, like pre-authorizing insurances, following up on unpaid bills with direct patient communication, accumulate, maintain and transfer medical records in real-time and can even translate "paperwork" from one language to another.

In addition to its "intelligence," AI is a master at fraud, waste and abuse (FWA) detection and prevention. With up to 35% of all healthcare costs coming in the form of FWA, AI has the potential to reduce these expenses drastically.

Of course, on the clinical front, AI is helping physicians to diagnose and treat disease, create new drugs, and is even monitoring patients as a digital nurse's assistant.

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Both RPA and AI technology offer incredible cost savings and with proper implementation, could very well lead to robust bottom lines and rising credit ratings. But, as shown, they are different solutions to different problems.

RPA relies on structured data and only does the mundane tasks its programmed to do. It's designed to complete low-level, repetitive tasks so employees can focus their time on more complex functions.

AI can process unstructured data from multiple sources and make intelligent decisions on complex issues and learns as it goes. It's designed to assist high-level employees.

So which solution should your facility employ to reduce costs and increase efficiencies? Which one is best? Well, both, really.

Because of the nature of how RPA handles time-consuming, repetitive tasks, it can be viewed as a digital employee. AI, on the other hand, is a digital manager. It captures data, interprets it and triggers intelligent judgment.

When utilized in tandem, these technologies will undoubtedly drive a stronger ROI than any single solution. But the next advancement in healthcare efficiencies technology takes things a step further.

Rather than having multiple AI and RPA systems operating independent of each other, Intelligent Process Automation, or IPA, is a near "all-encompassing" solution that combines all RPAs, Business Process Automations (BPAs), Application Programming Interfaces (APIs) and AI systems under one centralized umbrella.

IPA can communicate with all automation programs, directing them to perform in unison, while "learning" how to further streamline all processes, both operational and clinical. IPA assists in the management of nearly all aspects of healthcare operations and is the future of healthcare. RPA + AI = IPA

For example, let's say you have 10 employees involved in any given string of processes. Each employee makes $50,000 a year, with the team processing 500,000 tasks of differing complexities, annually. Each task, at this salary level, costs an average of $1 to complete.

However, if IPA manages two-thirds of these tasks, no matter the complexity, your man-hour cost per task could drop by 75%, with expenses dropping to just $0.25/task. In this case, IPA automation could have potentially saved you $375,000 per year on $500,000 in salaries. All while accomplishing its work, on time and error free.

It may sound unbelievable, yet even the most conservative estimates show IPA could save healthcare providers up to 40% in costs. These big costs savings, of course, mean far more revenue reaches your bottom line.

In the very near future, all modern healthcare facilities will have at least a portion of their front-office operations handled by RPA, with more complex patient care and medical data organized and supervised by AI.

Assisting in the management of all these automated systems will be the next great evolution in healthcare facility operations technology: IPA.

ABOUT THE AUTHOR

Grant Veazy drives innovation and technology strategy for Ensemble Health Partners. As chief technology officer, he oversees product architecture and development, client data security and Ensemble's IT infrastructure. He brings 20 years of experience with machine learning, data streaming, graph technology, cloud architecture and API-enabled platform engineering to his role.

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