'Tis the Season of Giving: Tech Gadgets. Machine Learning. And Healthcare.

With the holidays fast approaching, everyone is making their list and checking it twice—their tech list that is. [The Wall Street Journal](#) just released their [top tech gifts for 2016](#), which includes everything from the obvious [Amazon Echo and Echo Dot](#) to the [R2-D2](#) look alike, [Anki Cozmo Robot Toy](#).

These products are ushering in a new era of gadgets that promise to be faster and smarter. Speaking of smarter, a common theme amongst the top picked items is "[machine learning](#)." What is machine learning? It is the idea of taking [artificial intelligence](#) to the next level, i.e., computers that learn without being explicitly programmed. The basic principal is that these new products and systems use [data mining](#) to identify, predict and take action based on patterns. The more data a system has, the more patterns it can see, the better it can provide a service.

What do all these gadgets, gizmos and fancy IT terms have to do with health IT? Well, just like machine learning and AI are changing how we manage our daily lives, they are also changing how we manage large, complex health systems. In 2016 alone, [90 companies were identified as having applied machine learning and AI](#) to provide virtual assistance to patients, reduce drug recovery times, make diagnosis via medical imaging, and more.

And the future is now. For example, here at CNSI we are finalizing a concept for an addiction-identification tool that analyzes Medicaid claims related to [opioid addiction](#). Using predictive analytics, this tool will be able to identify outliers that represent claims related to opioids, such as higher-than-average prescription rates, duplicate fulfillments or "doctor shopping". States can then leverage this data to drive medical research, healthcare policies, and targeted outreach.

So whether you are in the business of holiday shopping or healthcare, machine learning and AI are the gifts that keep on giving.