



## Non-traditional stakeholders making waves in healthcare



Amazon, a name closely attached to retail and consumer goods, is also attracting a lot of attention as it makes an aggressive push into healthcare. Last November the company announced the launch of a new [machine learning service](#) intended to mine data from electronic health records ([EHRs](#)). The initiative, industry observers point out, is meant to address a core issue in healthcare and health IT: the need to do something constructive with the large amount of data in the possession of different stakeholders.

The new ML service will be provided through the company's HIPAA-compliant software, Amazon Comprehend Medical, which will allow developers to process unstructured medical text and identify information such as patient diagnosis, treatments, dosages, symptoms and signs, and other data.

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This latest initiative from Amazon, a relative newcomer in the healthcare sector, has some traditional stakeholders feeling a bit uneasy. As Liam Bouchier, a consultant for Impact Advisors, has noted, the initiative is a reflection of what Amazon "does best" — analysing large data sets as a means to gain meaningful insights into **the consumer** through a variety of different ways. "This concept does make some in the healthcare industry uncomfortable," he adds.

One explanation for healthcare organisations' inability to make better use of voluminous amount of data they keep is offered by another industry expert. Michael Abrams, managing partner at the St. Louis-based Numerof & Associates, says one particular issue that has arisen from healthcare's digital shift is that having access to digitised data is different from being able to use that data to streamline decisions or improve quality.

"Because hospitals rushed to digitisation in response to extrinsic [financial] incentives [as part of ARRA/HITECH], they wanted to qualify for federal subsidies, but hadn't really developed the internal capability to use the data," Abrams notes. "So, for the most part they are still very early on that learning curve, and the

notion of aggregating data, data manipulation, and the insights you can draw from aggregating data, is still a new concept."

In addition, Abrams criticises the hype surrounding "**big data**". Many health systems and hospitals, he says, have hardly scratched the surface using the data that they have. "Many of them don't understand their own internal operations and don't understand the cost of doing business — what it costs them to do a knee replacement, for example. All they know is at the end of the year, if they are profitable, it's all good."

Amazon's new software, supported by artificial intelligence, can re-digitise patient records and other medical notes, analyse them, and pull out key data points, Abrams explains, adding that in providing this data management solution, the company is simply leveraging its capabilities in natural language processing. "Amazon Web Services has been selling this kind of text analysis software to markets outside of medicine for some time. They have a significant advantage," he says.

The oligopoly (of Epic and Cerner) that dominates the present EHR market needs to be wary of the looming competition from Amazon and other players. The status quo of a lack of interoperability of different EHR systems, which favours current dominant players, should prepare for the coming change. Abrams strongly believes that outsiders such as Amazon, Apple, and **Google** "bring the technology and commercial savviness to dramatically shake up what's been generally a very complacent industry."

It must be noted that, also last year, Amazon said it would be part of another endeavour related to healthcare — to remove interoperability barriers and to make progress on adoption of health data standards. This project is a collaboration between Amazon, Microsoft, Google, IBM, and others who are committed to support healthcare interoperability by advancing healthcare standards such as HL7 (Health Level Seven International), FHIR (Fast Healthcare Interoperability Resources), and the Argonaut Project.

**Apple**, meanwhile, also had a big announcement in early 2018. The tech firm said that it would be testing its new Health Records feature out with 12 hospitals, inclusive of some of the most prominent healthcare institutions in the U.S. Since that time, more than 100 new organisations have joined the project, according to Apple. The idea behind the feature is that consumers could see their medical records right on their iPhones.

Prior to the past year when non-traditional players began moving more and more into healthcare, providers were "reasonably comfortable with moving as slowly as they could because they thought they had a good fix on the level of pressure and the pace of change that they might expect from the government," says Abrams. But, he adds, "Nobody can say 'slow down' to Amazon; when they want to do something, they are going to do it, and if they have a better solution, it could very well revolutionise the industry."

Source: [Healthcare Informatics Institute](#)

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