Made in IBM Labs: New IBM Analytics Software Helps Doctors Transition to Predictive Healthcare

IBM

IBM (NYSE: IBM [1]) today unveiled Patient Care and Insights, new analytics software based on innovations from IBM Labs that helps healthcare organizations improve patient care and lower operational costs by considering the specific health history of each individual patient.

The IBM solution provides the core capabilities for devising predictive models of various health conditions that can be used to identify early intervention opportunities to improve the patient's outlook by minimizing or avoiding potential health problems.

IBM's Patient Care and Insights is a comprehensive healthcare solution that features advanced analytics and care management capabilities to help identify early intervention opportunities and coordinate patient care. At the core of IBM Patient Care and Insights, developed by IBM's software, research and services teams, are similarity analytics that help drive smart, individualized care delivery. Born in IBM Research, IBM similarity analytics is a set of core capabilities and algorithms that allow healthcare professionals to examine thousands of patient characteristics at once -- including demographic, social, clinical and financial factors along with unstructured data such as physicians' notes -- to generate personalized evidence and insights, and then provide care according to personalized treatment plans.

For instance, physicians can make personalized recommendations to improve a patient's outcome by finding other patients with similar clinical characteristics to see what treatments were most effective or what complications they may have encountered. They can also perform patient-physician matching so an individual is paired with a doctor that is optimal for a specific condition. With this solution, caregivers can better tap into the collective memory of the care delivery system to uncover new levels of tailored insight or "early identifiers" from historical/long term patient data that enable doctors and others to help manage a patient's healthcare needs well into the future.

Healthcare professionals can analyze both structured and unstructured data using some of the same foundational natural processing language technology as IBM Watson to understand text-based information and present it for analysis. The predictive analysis capabilities enable healthcare organizations to identify patients at risk for developing illnesses or needing additional interventions. Providers can use predictive modeling, trending and scoring to anticipate patient outcomes and evaluate the potential effects of interventions.

"With the wide-scale adoption of the Patient Centered Medical Home, the need for comprehensive care management and analysis of the patient as they transition across settings has become a national priority. Programs like those at the Center for Medicare and Medicaid Services, for instance, that focus on robust care

management are indicative of the significant returns on investment that these care models can deliver," said Dr. Paul Grundy, MD, Global Director of Healthcare Transformation at IBM.

Drawing on the insights gained from analytics, care teams can then use the care management capabilities in IBM Patient Care and Insights to create personalized, coordinated treatment plans for patients that span multiple physicians, specialists, hospitals, clinics and home care environments. IBM Patient Care and Insights eliminates paper-based processes and automates care delivery mechanics such as managing workflow tasks and providing ongoing patient assessments.

"Healthcare professionals today need an integrated view of relevant clinical and operational information so they can make better decisions faster while improving quality of care. Discovering early intervention opportunities, for example, can dramatically change a resident's possible outcome and also help reduce costs for constituents across the healthcare community," said Rustan Williams, VP Information Services/Technology Systems and CIO at The Evangelical Lutheran Good Samaritan Society.

IBM Patient Care and Insights continues IBM's innovation in health care by delivering dynamic case-based, patient-centric electronic care plans and population analysis. IBM Patient Care and Insights will be demonstrated at the IBM IOD 2012 Conference [2] alongside other healthcare-focused innovations that further exploit the power of analytics to advance information extraction, enhance care coordination and personalize care plan creation. IBM business partners will also participate in extending and delivering solutions based on IBM Patient Care and Insights.

"IBM Patient Care and Insights delivers coordinated, patient-centric care from the doctor's office to the health plan," said Dr. David Hanekom, Chief Medical Officer at MDdatacor, an IBM healthcare partner. "Its advanced analytics and care management capabilities give organizations an evidence-based understanding of patient populations and early intervention opportunities. It also supports emerging health care business models such as accountable care, complex care management, and the patient-centered medical home, which aligns with our core vision. The end result will be better care for patients and lower costs for health plans and providers."

IBM Intelligent Investigation Manager

IBM today also introduced IBM Intelligent Investigation Manager, a new software offering that accelerates deployment of solutions for enterprise fraud management as well as public safety related investigations.

According to a report by the Association of Certified Fraud Examiners, the typical organization loses an estimated 5 percent of annual revenues to fraud. Applied to the estimated 2011 Gross World Product, this translates to a potential global fraud loss of over $3.5 trillion dollars.

Using IBM Intelligent Investigation Manager, investigators can gain insight into relationships among perpetrators, providers or fraud rings and produce easy-to-interpret visualizations of complex cross-channel fraud. Intelligent Investigation Manager enables organizations in banking, insurance, healthcare, retail, manufacturing, government and Public Safety to tap into internal and external content no matter its form -- opening up a wide pool to gain new intelligence and build cases for smart fraud protection.

IBM Intelligent Investigation Manager includes investigative tools, content analytics, and advanced case management capabilities, which enable clients to efficiently fight fraud. IBM Intelligent Investigation Manager is a foundational technology for IBM Smarter Analytics Signature Solution -- anti-fraud, waste and abuse -- offered by IBM Global Business Services in collaboration with IBM Software Group. Intelligent Investigation Manager is also a key component of the IBM Smarter Cities initiative.

Enterprise Content Management Market Leader

Gartner recently named IBM the “largest ECM vendor in terms of market share and total content revenue” in its 2012 Gartner Magic Quadrant for Enterprise Content Management[1] [3]. According to Gartner’s market share analysis, IBM is the leading software vendor with 19% market share for 2011 based on worldwide revenue, outgrowing the market and extending its lead over that of its closest competitor.

For more information on IBM Patient Care and Insights and IBM Intelligent Investigation Manager, visit http://www.ibm.com/software/ecm/value.html [4].

For more information on IBM Research, visit www.research.ibm.com [5].

[1] *[6] Gartner, Market Share Analysis: Enterprise Content Management Software, Worldwide, 2011, G00233424*

Links:
[1] http://www.ibm.com/investor
[2] http://www-01.ibm.com/software/data/2012-conference
[3] http://www.ibm.com/press/us/en/pressrelease#_ftn1
[4] http://www.ibm.com/software/ecm/value.html
[5] http://www.research.ibm.com/
[6] http://www.ibm.com/press/us/en/pressrelease#_ftnref1