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A CLOSER LOOK AT THE PEOPLE AND IDEAS THAT DRIVE MEANINGFUL CHANGE IN BUSINESS

SPOTLIGHT

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Mark Teflian is Co-founder and Chief Executive Officer of Aha! Software LLC, a leading on-demand software and services company delivering on the promise of break–through predictive analytics. (*Connextions Inc. has an ownership position in Aha! Software LLC, and maintains exclusive rights to its technology within the direct-to-consumer insurance sector of the healthcare industry.*)

Prior to Aha!, Mark was Executive Vice-president of Global Solutions and Technology for NTT/Verio, where he developed and led the implementation of a global strategy for the company's businesses, solutions, and technology. Mark was also Founder and President of TimeØ, a subsidiary of Perot Systems, a market-leading company that forged the corporate digital marketplace industry.

As Founder and President of Covia Technologies, a division of Galileo International Corporation, Mark led development and deployment of the Communications Integrator, the leader in the emerging message-oriented middleware industry. Under Mark's leadership, Covia Technologies achieved $23 million in revenue from *Fortune 500* customers and strategic partners. As SVP and CIO of Covia Partnership (now Travelport), and the youngest-ever VP of United Airlines, Mark played a pivotal role in building and deploying the Apollo Airline Reservation and Global Distribution System, considered one of the world's most advanced point-of-sale and information analytics platforms.

Mark has received many industry awards and has authored numerous white papers and articles, including pieces in the Harvard Business Review and Middleware Spectra, and wrote The Digital Marketplace Lexicon, cited by USA Today as a top business book.

Q *Why are predictive analytics essential in gaining competitive advantage for healthcare companies?*

A The consumer healthcare market is undergoing unprecedented supply chain disruption. The rapid emergence of the consumer-direct market — focused on the needs of individuals rather than institutions — will change the industry's competitive landscape over the next few years.

In the face of this change, healthcare companies, and health insurance providers in particular, are beginning to shift their marketing, operational and cultural focus toward individual consumers. This transition from an institutional B2B to a retail B2C orientation is extremely disruptive and highly challenging. It requires a comprehensive examination of every aspect of their business; beginning with underlying value proposition and product design, and ending with marketing spend and customer communications.

Winners in this new B2C marketplace will leverage predictive analytics to understand the needs of consumers, to reach and influence them efficiently, and to maintain their members' brand loyalty.

More specifically, predictive analytics will provide competitive advantage by enabling plans to identify and leverage the patterns of consumer needs; to predict the likely results of health plan selection and adoption; to model and design effective marketing campaigns and measure their return on investment; to optimally price health plans based on market needs; to spot opportunities to cross-sell and up-sell related products and services; and to attract and retain plan members by measuring and motivating behavioral changes. This is all very new and powerful stuff for consumer-driven healthcare.

Q *In what ways do the analytics used in patient care management differ from predictive analytics that are built on traditional business intelligence?*

A Analytics used in patient care management focuses on the identification, management and treatment of specific diseases based on an individual's clinical and genetic data. Here, analytics can determine the root cause of a disease or a disease class and select what treatments may be most effective and cost-efficient in the treatment and manage–ment of the disease. Analytics are also used to scan populations of patients to match common symptoms with treatments in medication.

Based on the successful application of analytics in patient care management, the healthcare industry has begun to

look for other and broader applications. The starting point for that exploration is based on traditional business intelligence. Traditional business intelligence uses standardized reports, often combined with ad hoc reporting and database query capabilities, to capture the historical and current state of the business. Predictive analytics applies that traditional business intelligence as a staging platform, and then makes the next leap — by using sophisticated statistical analysis, modeling, and optimization disciplines to predict and to influence future business outcomes.

The real sweet spot for future application of predictive analytics is in the identification and analysis of consumer behavior that will enable healthcare insurers to design and deliver mass-customized health plans that maximize financial return, and to provide the highest value features to consumers.

Q *Are there tangible and near-term benefits or advantages to using predictive analytics?*

A The most significant advantage is speed; understanding new market opportunities more quickly than the competition. When the travel industry was deregulated in the late 70's, winners and losers were determined largely by what they knew about their customers and how quickly they acted on that information. Decision-enabling technologies and predictive analytics provided competitive advantage to forward-thinking air carriers in the face of supply chain disruption…and a similar market dynamic exists today in healthcare.

This is much more here than fuzzy assumptions based on the history of another industry. There are tangible and immediate benefits to be gained from predictive analytics for healthcare providers. Measurable returns, as large as 50% or more, can be achieved on sales campaigns. Significant top and bottom line performance can be enhanced, with improvements in lead generation, cost of conversion and gross sales revenue. Additionally, member retention and medical loss ratios can be managed and improved through behavioral changes driven by predictive analytical tools.

Another little-known benefit of analytics involves operational transparency. Here's an example: like most businesses, healthcare providers need to have visibility into their current sales pipeline, and that view is typically based on averages and approximations using comparisons to similar campaigns or product releases. Using predictive analytics, however, plans can apply statistical modeling based on current and relevant data, which yields realistic and valuable forecasts. This renders dart boards and novena candles obsolete for senior managers.

Q *What type of up-front investment do predictive analytics require?*

A Until very recently, the up-front investment in predictive analytics was very steep; requiring $5 - $20 million of initial investment and 6-18 months to develop the necessary base logic, platform, data loading and extraction capabilities. Making matters worse — in terms of gaining a return on that investment — the front line business professionals who stood to benefit most from predictive analytics were often unable to access or apply the information that would enable them to affect meaningful change.

The great news is that innovation, the delivery model, and the semantic web now enable health plans to apply predictive analytic disciplines for an up-front investment under $100,000, and that can be customized and implemented in 6 - 12 weeks. More significantly, these tools can now be understood and applied, on a real-time basis, directly by the senior managers who are accountable for moving the business forward; not only by the IT department or people who are trained to understand arcane languages or complex data. Predictive analytics are now both affordable and user-friendly.

Q ***Is there a right way and wrong way to build this capability?***

A The wrong way for a healthcare plan to build a predictive analytics capability in the new consumer-driven market would be to base their assumptions on the open transaction loops that are related to the employer annual renewal sales cycle that has historically characterized the market. In other words, in a market where the dynamics are rapidly changing, you can't apply information that's no longer relevant. Another common mistake is to measure one analytical application at a time — simply trying to react to what competitors are doing. Again, the travel industry provides some valuable insight. The carriers that did not invest in price / yield management predictive analytics, for example, were forced to play catch-up and to fight for survival against those competitors who had not taken a "wait-and-see" approach to innovation. The winners constantly changed the playing field with their analytics platforms, people and expertise. It's a classic case of offense being the most effective defense, in terms of competitive positioning.

The correct approach also involves partnering with a trusted resource capable of providing proven applied analytics expertise, software and services; and not from scratch. A good analytics platform will consist of an analytics engine for modeling and statistical analysis, an analytics language based on script generators for rapid development of analytics logic without requiring any IT involvement, and data loading and connectivity software.

Q ***How does a healthcare organization begin to use predictive analytics for competitive advantage?***

A The most important first steps establish a predictive analytics foundation, and they involve good business planning. This means identification of the Key Performance Indicators (KPIs) that are required to deliver immediate business benefits, and affect behavioral change.

A typical implementation of predictive analytics involves the following steps:

- Define KPIs for a key product or service
- Generate data sources to calculate the KPIs on an ongoing basis (hourly, daily, weekly, etc.)
- Define a rollup hierarchy of lower level products and /or organizational responsibilities to culminate in the KPIs
- Construct a simple skeleton reporting structure complete with a business performance management dashboard
- Create an on-demand, customized organization-wide service
- Extract and load data into the application through a simple and widely used data file

With this foundation, a business has the predictive analytics to perform "what if" analysis, to run simulation models to envision possible outcomes, and to optimize its customer relation–ships. This type of development process, for example, will provide a health plan with the ability to monitor and analyze trends and to predict outcomes based upon its KPIs. These real-time results can be monitored and accessible on a 24 / 7 basis, through a secure internet portal that can be viewed universally from any global internet connection. Views can be custom–ized, products can be added, and user access can be expanded as desired. Regardless of industry application, this level of market insight through predictive analytics will provide significant and sus–tained competitive advantage.

Q ***Beyond technology, is there an underlying key to success here?***

A Yes. For predictive analytics to succeed, the fundamental purpose and competitive benefits of the discipline must be understood, endorsed, and applied by senior executives. Unless they embrace its intrinsic value, the rest of the organization will achieve only limited success.