

2011 Predictions for the Analytics Industry

IIA Faculty

1. With even modest economic growth in 2011, the use of analytics as a competitive differentiator in selected industries will explode.
2. The gap between analytical innovators and those who do not invest in analytics will widen in high-profile ways.
3. The roles of marketing, sales, human resources, IT management, and finance will continue to be transformed by the use of analytics in 2011.
4. 15 Chief Analytics Officers (CAO) will be appointed in 2011.
5. The availability of strong business-focused analytical talent will be the greatest constraint on organizations' analytical capabilities in 2011.
6. Database capacity, processor speeds and software enhancements will continue to drive even more sophisticated applications of analytics in 2011.
7. Newer analytical methods in the areas of text analytics, survival mining, time series mining, net-lift modeling, and data visualization will grow in use in 2011.
8. Consolidation of analytics software players will continue; entry of specialized analytics software and service providers will accelerate.
9. Regulatory and privacy constraints will continue to hamper growth of marketing analytics.

Overview

IIA expects 2011 to mark the beginning of a multi-year cycle where the sparks of economic growth ignite a tinderbox of technology and business forces that are set to drive mainstream adoption of business analytics across commercial and government sectors. Without question, the competitive gap between analytical innovators and those who do not invest in analytics will widen over the coming 12 months.

IIA sees the biggest gains coming within eight vertical industries, and across four functional areas. These industries and functions have already been altered by the profitable use of analytics, but 2011 looks to be a transformational year.

As understanding of analytics from business leaders expands, IIA expects the appointment of 15 Chief Analytics Officers in 2011, and the continued formation of analytics teams within those competitors and industries who see the most promise from analytics.

Processing power, storage capacity, cloud computing (storage & processing), and analytics software have all now matured to a point where it is now cost-effective and relatively simple for enterprises to adopt analytics to enhance competitive advantage.

The growing community of analytics professionals, both business and technical will continue to generate and further adopt innovative analytical techniques in the areas of text analytics, survival mining, time series mining, net-lift modeling, and data visualization.

Limiting the growth of analytics will be the scarcity of strong business-focused analytical talent, as well as the continued cry of privacy actors and regulators.

With even modest economic growth in 2011, the use of analytics as a competitive differentiator in selected industries will explode.

IIA covers in-depth eight (8) distinct vertical industries that have led the way in the profitable use of analytic techniques and technologies to enhance profits and build competitive advantage. Listed in order of analytical saturation along with the primary analytical applications, these are:

1. Banking (customer profitability, risk management)
2. Insurance (pricing, claims fraud, underwriting risk)
3. Health Care & Life Sciences (supply chain, pricing, drug development)
4. Telecommunications (pricing, marketing, churn/retention, up-sell, cross-sell)
5. Retail (marketing, store efficiency, supply chain)
6. Energy/Utilities (pricing, marketing, demand forecasting)
7. Media/Entertainment (marketing, social network analysis)
8. Transportation (optimization, scheduling)

Retailers have been holding back on analytical investments because of the economy, but are already beginning to invest more and appoint new analytical executives.

U.S. health care providers are spending dramatically on electronic medical systems and analytics based on them, because they are anticipating reimbursement from “meaningful use” of the systems from the U.S. government. Spending should increase on creating useful analytics off of electronic medical systems.

Financial services firms have focused heavily on risk analytics, but the pendulum is beginning to swing back toward marketing and customer-related analytics.

The gap between analytical innovators and those who do not invest in analytics will widen in high-profile ways.

The industries with “low batting averages”—pharmaceuticals, entertainment, etc.—will see greater differentiation between companies that use predictive analytics, and those who don’t.

Early adopters of analytics in some industries, e.g., airlines and baseball, have failed to continue innovating, and have lost competitive advantage.

The roles of marketing, sales, human resources, IT management, and finance will continue to be transformed by the use of analytics in 2011.

Marketing and sales: continuation of an existing trend, but companies will emphasize it more with an improving economy.

Human Resources: one of the fastest-growing areas for analytics.

IT: shift to BI and analytics support, instead of transactions.

Finance: instead of just scorecards, more analytical performance management; fraud & risk.

15 Chief Analytics Officers (CAO) will be appointed in 2011.

We know of several specific examples of hiring in this category already.

Many other firms and organizations are realizing that they need more centralized management of analytical capabilities.

The “CAO” title will not be used by all companies for this role, but the position will become increasingly common by some name.

The availability of strong business-focused analytical talent will be the greatest constraint on organizations’ analytical capabilities in 2011.

As the labor market tightens with an improved economy, the availability of capable analytical personnel with strong business orientations will tighten even further, and will constrain analytical initiatives in many firms

Leading organizations will work with universities or analytical services providers to better train and certify analytical professionals

New programs from universities and other professional training groups aimed at churning out more analytical professionals will be announced but they will lag behind the demand.

Database capacity, processor speeds and software enhancements will continue to drive even more sophisticated applications of analytics in 2011.

The trend of analytical and database environments converging will continue, and even accelerate, in the coming year. The use of “sandboxes” within a data warehousing environment for development of analytics continues to see increased adoption.

The early adopters are now up and running. Focus for those organizations is now shifting from getting set up to leveraging their environments to drive better, more sophisticated analytics.

Newer analytical methods in the areas of text analytics, survival mining, time series mining, net-lift modeling, and data visualization will grow in use in 2011.

Given the continuing influx of textual data, organizations are already pressured to find better means to search, categorize and glean insights from it. The sheer volume of documents organizations need to manage makes it impossible to manually categorize them. To truly leverage this source of data, it will have to be managed more strategically. Organizations paying attention to the conversations in social media will be better prepared to respond and show they are listening when appropriate and staying attuned to the voice of the customer.

While survival methods have been around a long time, they haven't been as widely adopted for use in customer profitability modeling and to predict not just *if* but *when* key customer events will occur during the customer's life cycle. Many industries including telecommunications and financial services have been using this approach to a degree, but the number of organizations who don't really leverage the time dimension of their data is surprising. In addition to survival mining, time series mining is relatively new area helps identify similar, sequential and periodic patterns over time. It has proven useful in applications like new product forecasting and optimal ATM replenishment.

Net-lift modeling is another hot topic helping organizations address the basic but often elusive question of "who would've bought something whether we promoted it or not?" Also called up-lift, incremental-lift, and differential response modeling, all provide means to help assess when marketing efforts actually influence the customer.

Greater use of visualization will help organizations more effectively and efficiently see what's important. Innovations in dynamic time series "data movies" help decision makers of all abilities and skills see patterns, trends and changes over time helping the data tell the story in the context needed. Look for innovations in more effective visualizations of textual data as well.

Consolidation of analytics software players will continue; entry of specialized analytics software and service providers will accelerate.

The few remaining independent analytical software firms, such as SAS and KXEN, will see increasing interest from large IT firms who don't have a significant analytical capability, e.g., HP and Oracle.

Smaller software vendors will focus primarily on specific analytical "apps" for specific decisions and industries.

Services firms that don't have strong analytical capabilities will attempt to develop them, although the number of good people is waning.

Regulatory and privacy constraints will continue to hamper growth of marketing analytics.

In addition to the Fair Credit Reporting Act, IIA expects federal legislation/regulation to be introduced in the U.S. relating to web tracking and analytics.

Europe will continue to lead in the development of relatively restrictive customer data and analytical policies. Paradoxically, the comfort caused by these policies will likely lead to consumers to part with more information than in the U.S.