Optimized Marketing through Intelligent Social Media Analytics

Real-Time Analytics for Sentiment Analysis, Marketing, and Media Mix Optimization
“Get the mix right by integrating social media with more traditional media in STATISTICA Enterprise and finding an optimal balance between marketing expenses on various channels and sales volume with STATISTICA Data Miner tools.”

Vladimir Rastunkov, Ph.D., StatSoft

Plugging into the Instant Feedback Loop

The marketing of brands and products has dramatically changed. Fewer key messages are disseminated through printed media, radio, and TV because of the delayed response to the campaigns days, weeks, or even months later. Instead, marketing campaigns today begin with a careful consideration of which specific web portals, search providers, social media, or blog spaces to target, and how to effectively communicate the message.

The instant echo chamber

Consumers today have a voice, and they have the instant media to make their voice heard. As a consequence, any confusing marketing messages or missteps will instantly affect the blogosphere, discussion groups, and social network sites, as the "buzz" quickly emerges in the echo chambers of the world.

This means that consumer responses expressed via web media can provide immediate feedback to your marketing team:

- To provide an accurate forecast of expected sales
- To identify problem areas, unexpected barriers, or any pushback
- To match refinements to the messages and echoing from the mix of media to improve marketing efficiency

Featured StatSoft Products

All components are fully integrated so that, for example, models built in STATISTICA Data Miner by an analytics team or automatically are available through STATISTICA Enterprise for dashboarding or alerting, or for automated process (sentiment) monitoring.

STATISTICA Data Miner and Predictive Modeling is a complete statistical analysis and predictive modeling platform that supports hundreds of algorithms and methods, including powerful ensemble methods. Models can be managed through STATISTICA Enterprise or can be built and refreshed automatically in the Enterprise platform. STATISTICA Data Miner is very fast (multithreaded, 64-bit, and will take advantage of multicore server platforms), scalable (data are managed via thread-safe data caches on the hard drive or solid-state drive), and efficient.

STATISTICA Enterprise is a server platform for building and managing individual models hundreds of thousands of models or in a secure multi-user enterprise-wide environment. Enterprise provides the capabilities for automating the model building and model-refreshing process and for performing automated change-point analyses (trend reversals) or simple univariate and multivariate process (sentiment) monitoring. Enterprise will integrate with your existing IT assets, databases, web-based services, etc., so it is not necessary to acquire new database software or servers, to replicate data, import data, etc.

STATISTICA Text Miner is a sophisticated text mining solution specifically optimized for working with big data to achieve very fast indexing (through multithreaded software architectures). Text "models" can be created that can serve as efficient data-preprocessing steps for predictive modeling and dashboarding, e.g., to predict and track customer sentiment based on blogs or tweets.

STATISTICA Monitoring and Alerting Server is the server platform that supports dashboards for tracking customer sentiment, forecasts and the accuracy of forecasts, and overall model health. Monitoring and Alerting Server supports alarming and email-alerts, and has a light-weight web interface to securely deliver decision support to authenticated users anywhere.
Recognize the Link: Marketing > Buzz > Sales

The basic challenges are clear:
- How to determine which marketing channels to choose and how much to spend on each channel in order to reach your target audience
- How to link marketing activities to sentiment expressed by consumers on relevant web sites, blogs, discussion groups, social network sites, etc.
- How to link a reliable index of sentiment, or complex multivariate indices of consumer response and effect, to subsequent product sales
- How to put it all together to predict the expected success of an optimized marketing campaign based on the immediate feedback from consumers

Putting It All Together: Predictive Modeling

The STATISTICA Enterprise solution for Social Media Mix Optimization provides an integrated system that is as responsive as the market and the messages reverberating through the web-based echo chambers themselves.

Bringing Data Pieces Together

Social media response is obtainable in many formats and aggregations: from the users count, number of views, friends, or “Likes” that can be available daily, hourly, or even by the minute, to time stamped customer reviews that may not be updated as frequently. Configuring and maintaining all data sources in STATISTICA Enterprise and numericizing text fields with STATISTICA Text Miner combined with STATISTICA ETL (Extract, Transform, Load) functionality helps to solve this challenging task in an efficient and automated way.

STATISTICA Data Miner and Predictive Modeling

The analytic engine driving the system is the STATISTICA Data Miner library of capabilities and algorithms, which builds accurate predictive models for linking variables from different sources. The long-established Data Miner program is the most comprehensive, best tested, and universally acknowledged most versatile platform for predictive modeling, offering options for manual model building and configuring complete workflows within a visual programming environment.

STATISTICA Text Miner

This program provides the high-capacity engine for indexing unstructured user-generated content (text) to extract the critical dimensions defining relevant sentiments expressed across multiple web sites, blogs, and social media sites efficiently and reliably. STATISTICA Text Miner equally serves the following purposes: meaning extraction, automatic text categorization, entity extraction, bringing unstructured data to numeric form, and concept extraction with Singular Value Decomposition (SVD).

STATISTICA Enterprise

This system provides the robust and scalable server backbone for automating the analytics, linking marketing expenditures to consumer sentiment, and linking consumer sentiment to expected demand (and sales). STATISTICA Enterprise also provides the display layer to manage large numbers of channels via efficient and hierarchically nested dashboards that will alert/alarm when undesirable trends are detected.

Return on Investment

To gauge your ROI, three types of immediate feedback are available in one system:
- New Product Creation, Introduction and Adoption Rates
- Marketing Spend Optimization: reduce expenses on ineffective media channels and invest in most promising channels to achieve maximum lift in sales
- Trend Customer Feedback and obtain early warnings of any events in customer satisfaction levels or indications of new needs or concerns

Key Features Summary

- Central Configuration and Management
- Data Connections, Aggregation, and Alignment across different departments within organization. Data configurations are stored as metadata and serve as templates for subsequent analyses and analytic workflows
- Automated, Proactive Alerts
- Measure Marketing Success and Sales Conversion in one Platform
- Final Solution can Embrace Data Collection with Data Historian Functionalities or be Easily Integrated with Existing Infrastructure
Optimizing the Media Mix

Once a complete system is in place that reliably tracks the relationships between marketing expenditures and customer sentiment, the system can be optimized using powerful “what-if” scenario analyses to identify the optimal combinations of expenditures for different advertising and marketing channels. Predictive models will be built to establish confidence regions around the formula for the optimal mix to empower marketing or product managers to evaluate risk/reward scenarios, and ultimately, turn the buzz into sales.