



February 6, 2012

Customer Intelligence Needs A New Breed Of Marketing Scientist

Find New Skills To Ground Analytics In Business Relevance

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EXECUTIVE SUMMARY

A mature customer intelligence (CI) function needs optimized data processes, cutting-edge technologies, and the right analytics talent. Analysts add value to CI with their data-mining and data-diagnosis skills. To effectively embed analytics into an organizations' decision-making fabric, analysts also need a business-oriented mindset to make their findings more relevant to the business. This report highlights the need to nurture business-savvy analysts and marketing scientists with a penchant both to build statistical models and to use the output to craft customer growth strategies.

ANALYTICS GEEK-SPEAK MINIMIZES CI'S BUSINESS RELEVANCE

Forrester identifies four segments of CI professionals — marketing practitioners, marketing technologists, marketing scientists, and customer strategists. Marketing scientists typically orchestrate the customer analytics function — managing the reporting, data interrogation, and predictive modeling functions.¹ As such, they engross themselves in analytical and statistical tools, data-mining methodologies, and complex algorithms. But too often, we find that marketing scientists:

- **Entangle themselves in tactical pursuits.** Marketing scientists often take a narrow, task-oriented approach to analytics and therefore find it hard to step away to look at the larger business implications of analytical results. An analytics professional at a large credit card issuer told us: “An analyst has to work with assumptions because data is not clean, has to understand data generating processes, and be aware of potential errors. But with all this attention to detail, they often miss the business implication of the data and analysis.”
- **Struggle to manage expectations of the business.** Business units requesting an analytical solution expect answers — maybe to justify an investment, find a reason for attrition, or prove the effectiveness of a media strategy. An analytics executive at a large multinational financial services company told us, “The business hires analysts thinking that the analyst will have ultimate knowledge of what’s going on, which is a misconception.” Because they operate in a service-oriented — rather than consultative — capacity, analysts frequently struggle to meet requirements, delivering sub-optimal analytical solutions instead of innovative solutions.
- **Fail to tie analytics performance to business performance.** Marketing scientists who fail to understand how analytics projects align to the strategic priorities of the organization limit their value as a resource within the CI team. We find few firms that take the approach of a leading

Canadian wireless provider, which incents its churn-modeling team to affect customer retention from an overall business perspective and not just to improve the stability of the churn model.

CUSTOMER INTELLIGENCE DEMANDS TRANSLATORS, NOT PURE MARKETING SCIENTISTS

Traditional marketing scientists learn and train for pure functional skills (see Figure 1). But modern CI leaders expect marketing scientists to possess some business orientation skills and not just churn out statistical models. This requires a new breed of business-savvy marketing scientist who can:

- **Decode marketing to math and vice versa.** Business and analytics speak different languages, and for CI to become a strategic partner of the business, marketing scientists must act as a bridge between business needs and analytics execution. This translation goes two ways — turning data into business-relevant insights and business challenges into questions/hypotheses that can be tested using analytics.
- **Help customer intelligence step out of the shadows.** A majority of CI professionals operate at a functional level and provide analytical services to the internal organization for a particular product channel or campaign.² Business-savvy marketing scientists can help CI move away from purely providing functional intelligence, despite challenges to get executive buy-in to invest in these additional resources. An analytics executive at a home improvement retailer told us, “I believe that senior leadership sees the value in analytics, but we haven’t necessarily seen it translate to resources.”
- **Ensure accurate and contextual application of analytical findings.** The analytical process has multiple hand-off points, from those who ask the question of the data to those who apply the insights to solve a problem. A business-savvy marketing scientist prevents the misuse of analytical findings and ensures the accurate and contextual use of the output. This implies that analytics is not used merely as a prop to make a business case but also as an enabler to drive opportunity for the business.

Marketing Scientists Must Translate At Each Hand-Off Point In The Analytics Journey

The analytics journey starts with problem definition and ends with results delivery to the relevant audience. Mature CI firms take it farther and use analytics to identify new business opportunities. For the analytics process to yield actionable results, each stage requires varying degrees of “translation” from business to math and vice versa (see Figure 2). The marketing scientist must effectively translate:

- **The business problem to a valid hypothesis.** Centralized analytics teams function like internal service providers designed to gather business requirements from internal stakeholders. At this stage, the translation of business requirements into an analytical hypothesis signals the data exploration process. For example, a clothing retailer encourages its analytics team to participate in business meetings and frame analytical challenges based on the challenges raised during the meetings. This elevates the perception of the analytics team as business problem-solvers rather than technical resources to be deployed in response to a specific need.

- **The hypothesis to an analytics approach.** For this step, the translator requires knowledge about the desired business outcome as well as an understanding of which analytical technique to use — disparate skills that are unusual to find in a single person. For instance, marketing scientists use response propensity models to plan direct mail campaigns and target customers who have a high probability to respond. Here, the marketing scientist must know that a logistic regression model can be used to understand propensity to respond, which requires knowledge of regression as well as of how the model shows customer response behavior.
- **The analytics approach to execution.** There is minimal need for translation once the marketing scientist chooses the analytical approach. The traditional strengths of analytics staff kick in — experts in statistics and modeling execute on the analytics approach and create relevant variables and test assumptions and then validate the model.
- **The execution to results delivery.** Communicating the results of an analytical model to a non-analytical audience requires careful translation of relevant details. For example, using statistical terminology to explain the performance of a predictive model will not resonate with a business audience concerned with how the model affects customer value, customer experience, or the performance of a marketing campaign. Here, the translator turns into a storyteller — creating a compelling narrative and visualizing the data in a relevant and meaningful way.
- **The results delivery to business opportunity.** The role of the translator extends to using the data and the analytical output to identify new business opportunities. For example, a churn analysis results in scoring the customer database with churn scores. The business-savvy marketing scientist adds value to this step by using the churn scores to further understand the loss impact of high-risk customers and suggests ways to counter it.

Figure 1 Traditional Marketing Scientists Focus On Acquiring Functional Skills

Focus of functional skills	Sample job description keywords
Analytical tools	SAS, SPSS, R
Vertical-specific	Advertising, customer relationship management (CRM), risk
Data type	Digital data, financial data, POS data, syndicated data, media data
Technical/IT	SQL, database, business intelligence
Analysis type	Marketing mix modeling, predictive modeling, segmentation, forecasting

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Source: Forrester Research, Inc.

Figure 2 The Level Of Translation Varies At Each Step Of The Analytic Process

Analytic step	Level of translation needed		
	High	Medium	Low
1. Business problem to hypothesis	High	Medium	Low
2. Hypothesis to analytical approach	Medium	High	Low
3. Analytical approach to execution	Low	Medium	High
4. Execution to delivery	High	Medium	Low
5. Delivery to business opportunity	High	Medium	Low

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Source: Forrester Research, Inc.

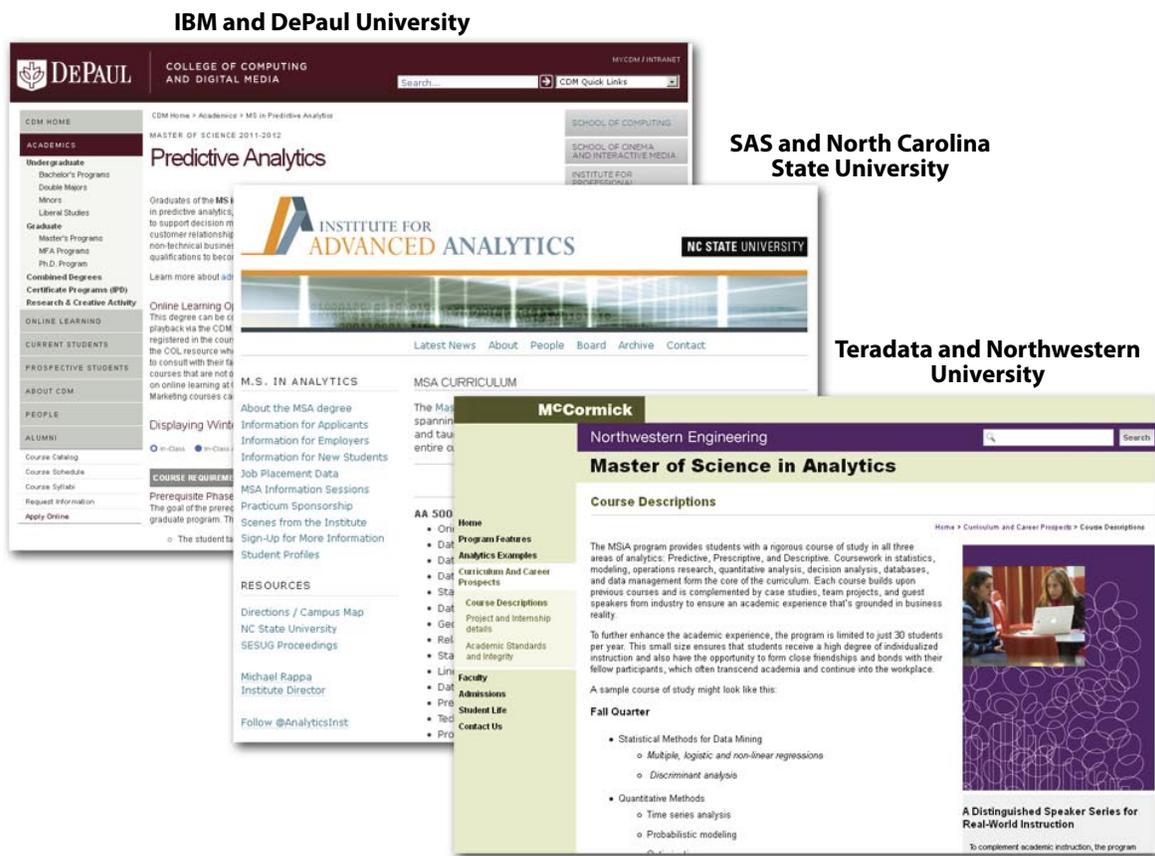
DEVELOP TRANSLATORS ACROSS THE STAFFING CYCLE

CI professionals tell us they struggle to find analytics translators who are adept at both analytical methodologies and business acumen. A senior CI executive at a large retailer told us: “I’m not convinced about how many people possess both sets of skills. So what I’ve been trying to do is populate my team with a mixture of folks.” To address the absence of ready-made translators or business-savvy marketing scientists, CI professionals should:

- **Attract: Partner with schools to train for analytics translators.** Firms such as IBM, SAS, and Teradata collaborate with universities to design analytics programs. The content of these programs ranges from foundational data mining to advanced analytics but skews toward training for functional skills (see Figure 3). CI teams looking to attract analytics translators should engage with schools through case studies, internships, and workshops to ensure that the business application of analytics is an integral part of the curriculum of these programs.
- **Nurture: Cross-fertilize skills to create collaborative teams.** To create a breeding ground for business-savvy marketing scientists, a leading retailer staffs its analytics team with experienced SAS modelers, MBAs with consulting experience, and marketing practitioners. The firm works to instill a collaborative approach to ensure that the analytics teams pick up multiple skills.
- **Train: Equip marketing scientists with new tools.** Analytics requires hard skills in statistical theory, data mining, and database/IT. But to train business-savvy marketing scientists, supplement the technical skills with business training. Whether this means sending them to business conferences, investing in role-specific training, or sponsoring short-term business or executive MBA courses, marketing scientists will develop an appreciation for the variety of business problems that analytics can solve. Decision sciences and analytics service provider Mu Sigma invests in training through its Mu Sigma University initiative, exposing analysts to consulting and business challenges along with analytics-specific tools.

- **Incent: Prove business impact of analytics.** Marketing scientists, especially those who realize that their skills are scarce and valuable, harbor multiple career choices. To retain high-performing analysts, CI professionals must show that analytics is solving the business' most critical problems — whether it is the success of a marketing campaign or cost savings in customer service. When marketing scientists are expressly incented to drive business results, they will develop a greater appreciation of their role in the firm's decision-making fabric.

Figure 3 Specialized Analytics Programs Emerge As Industry And Universities Collaborate



Source: DePaul University, North Carolina State University, and Northwestern University websites

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Source: Forrester Research, Inc.

WHAT IT MEANS

BUSINESS-SAVVY MARKETING SCIENTISTS WILL REINVENT TRADITIONAL CI

A business-savvy marketing scientist will no longer ask for a clean data set or an accurate predictive model but will lead the effort for CI to prove that analytics leads to tangible business results. This means that tools, partners, and processes supporting analytics will need to evolve to become even more plugged into an organization's decision management approach. The new marketing scientist will:

- **Negotiate better outcomes with analytics partners.** Equipped with the understanding of how analytical results integrate into the business, marketing scientists will expect the analytics partner ecosystem to also deliver business-relevant results in terms of campaign performance, model performance, and value-added services.
- **Spur usability changes.** For marketing scientists to interact effectively with business users, analytical tools will also need to make it easier for business users to perform complex analyses.
- **Force universities to modify analytics curricula.** To meet the demand for business-oriented analysts, universities will train students for the business use of analytics after laying the foundation for analytics and data-mining training.
- **Change the perception of CI.** Marketing scientists will no longer be perceived as pure number-crunchers and will ultimately spur CI's maturity and progress within the organization.

SUPPLEMENTAL MATERIAL

Companies Interviewed For This Document

DePaul University	Pace University
Home Depot	SAS
IBM	Staples
Newspaper Support Services	

ENDNOTES

- ¹ In some firms, the four segments play an enterprisewide role, while in others they are replicated across multiple lines of business. See the October 16, 2009, "[The Intelligent Approach To Customer Intelligence](#)" report.
- ² Fifty-four percent of firms use customer intelligence at a functional level. The scope of influence is limited to a specific channel, product, or service. These firms are also least likely to place high value on their intelligence or to have the staff and technology they need to leverage customer intelligence across the enterprise. See the October 16, 2009, "[The Intelligent Approach To Customer Intelligence](#)" report.

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