Data Leveraging Architects: Critical to Optimal Customer Relationship Management

By Jim Wheaton
Principal, Wheaton Group

Original version of an article that appeared in the March 15, 2000 issue of "Direct"

Premise

Customer Relationship Management is often an exercise in sophisticated chaos. Massive resources are poured into "star wars" technology. Advance-degreed data miners develop complex algorithms to drive overall contact strategy. Agency creatives jump into the fray with their own unique contributions.

Unfortunately, far too few companies have successfully implemented a cutting-edge CRM program. All too often, the data miners have little real-world business experience, and the agency creatives are suspicious of technology and statistics. To top things off, the technologists resent the "meddling" from both parties.

The success of any CRM initiative can be ensured by appointing a "data leveraging architect." This is a seasoned individual with the practical expertise and vision to coordinate the multiple functional disciplines required for the success of any complex, data-driven strategy. The best architects command the respect and cooperation of the technologists, data miners and creatives. They are able to transform these disparate skill sets into an integrated team, thereby realizing the full potential of Customer Relationship Marketing.

The data leveraging architect must drive the CRM initiative from the beginning. Participation is especially important during the design and construction of the underlying data warehouse or mart. Without such an architect, any CRM initiative is at significant risk of failure. At a minimum, many months are likely to be added to the time that it takes for the project to begin to realize a return on investment.

The first of the following case studies proves the point by providing a primer of what not to do. The second vividly illustrates the value that an experienced data leveraging architect can bring to any Customer Relationship Management program.

Case Study #1

A major financial institution recognized the need for its credit card division to acquire better customers, and to spend less in doing so. To that end, it embarked on the construction of a massive prospecting data mart. A well-known services firm was engaged to build and maintain the mart.

The services firm operated a research and consulting group that provided predictive modeling as well as quantitative and strategic consulting services to many of its clients. Because of existing commitments, however, no one from the group participated in the building of the mart. Also, no data leveraging architect was appointed to supervise the project. Instead, the technologists assumed total control.

After six months of intense work, the prospecting data mart was ready to launch. Representatives from the financial institution, anxious to display immediate payback to senior management, requested a two-day summit meeting to develop a comprehensive, data-driven strategy. Several members of the service firm's research and consulting group were asked to attend.

One hour into the meeting, the brainstorming came to an abrupt and premature end. The technical folks, in their quest for processing efficiency, had not included in the mart a running history of several fields that were critical to the execution of any analytical work. Instead, the values comprising these fields were over-written each and every month.

The incorporation of this running history necessitated a redesign of the mart. The unfortunate result was a two-month delay, a loss of credibility in the eyes of senior management, and a substantial decline in momentum.

Case Study #1: Continued

At the same time, the financial institution retained a prestigious strategy firm to review its entire operation. During the launching of the mart, senior management was presented with the results of the seven-figure study. An entire section of the report described in detail a state-of-the-art CRM program.

Senior management, impressed with the strategy firm's recommendations, asked it to implement the vision. The goal was to build a cutting-edge, multi-faceted, statistics-based algorithm that would drive all of the institution's prospect and customer contacts. A team of statisticians was assigned to the project. The prospecting data mart would be a key input to the algorithm.

Armed with impressive degrees from elite institutions, the project team's army of statisticians descended upon the financial institution with a mandate to revolutionize the way that business was conducted. Unfortunately, no one on the team had any substantial real world experience. Therefore, when constructing their cutting-edge algorithm, they neglected to consider mundane data processing realities such as computer run times. This was a critical issue with the prospecting data mart, which was being maintained in a legacy mainframe environment.

The services firm that was maintaining the data mart asked to be apprised of the project team's strategy, but to no avail. The project team was particularly wary of the data leveraging consultants employed within the service's firm's research and consulting group. These experts, although privy to invaluable insights about the limitations of the systems under which the mart was operating, were perceived to be a competitive threat. Unfortunately, no overall data leveraging architect had been

appointed to insist on the cooperation of all parties. As a result, the project team's statisticians worked for seven months in a virtual communications vacuum.

The lack of coordination spawned a total disaster. A benchmark test of the cutting-edge, statistics-based algorithm indicated that it would take 360 CPU days to execute against the entire prospecting data mart. Because mainframes process multiple jobs at once, this translated into an elapsed time of between two to four years – an absurdly impracticable situation.

Panic-stricken, the financial institution assembled an emergency team of data processing experts to develop a solution. Ultimately, about ninety-five percent of the algorithm was discarded, and the balance rewritten, for the sake of efficiency. The code that remained was just a shell of the strategy firm's original vision. Senior management, again, was not impressed.

Case Study #2

A multi-billion dollar company manufactured products with price points in the thousands of dollars. These products were marketed to large businesses primarily through a dedicated sales force, and to small firms and consumers via direct mail and space ads. Concerned about a recent loss of market share, the manufacturer retained an outside consulting firm to develop a comprehensive CRM strategy. The first step was to construct a data mart containing robust, atomic-level purchase information and promotion history.

As with any CRM initiative that contains a business-to-business component, it was critical that the design of the data mart reflect the way in which the manufacturer viewed its customers. Specifically, there are three levels at which customer transaction information can be aggregated: the company, the location, and the individual.

Assume for the sake of simplicity that the manufacturer operated out of two locations: an executive office at 1426 Pearl Street in Boulder, Colorado, and a manufacturing facility at 6707 Winchester Circle. Assume also that it had received orders from Cynthia Baughan at the Pearl Street location, and Marilyn Margarito and David James at the Winchester Circle address.

A company-level view would consider all of the orders to comprise a single customer, regardless of the associated individual and location. A location-level perspective would differentiate Pearl Street from Winchester Circle. And, an individual-level look would define as discrete entities Cynthia Baughan, Marilyn Margarito, and David James.

The manufacturer viewed its customers primarily from a location-level perspective. Accordingly, this was reflected in the initial design specifications for the data mart. However, the data leveraging architect recognized that the project scope should be expanded to enhance the mart's ability to track activity at the individual-level. The vision was to maintain a relationship with customers as they changed locations and companies during the course of their careers.

Hygiene is notoriously poor with business-to-business data marts. As employees move from location to location, and from company to company, most marts have no mechanism to reflect these changes. Often, third class mail is sent for years to departed employees. The amount of waste is colossal.

The data leveraging architect realized that the manufacturer's sales representatives were privy to virtually all of their customers' career changes. The challenge was to provide the mechanism and incentive for them to input this information into the data mart in an accurate and timely manner. The solution was to create a structured Graphical User Interface, and to ensure weekly input via "carrot" and "stick" incentives. The result was a dramatic enhancement of the CRM strategy's effectiveness.

The Graphical User Interface proved to be especially valuable whenever a loyal customer would move to a company that had never been receptive to the manufacturer's products. Such an event would trigger a Marketing Action/Reaction System, which – in turn – would unleash a flurry of hyper-targeted prospecting activity. Likewise, when an individual with a history of hostility towards the manufacturer would jump to an historically loyal customer, the Marketing Action/Reaction System would instantaneously activate a series of preventive promotional contacts.

Conclusion

State-of-the-art Customer Relationship Management requires "star wars" technology as well as highly trained specialists. Individuals must be hired to work directly with the technology. Data miners and agency creatives are required to develop the data-driven promotional campaigns.

But it is the data leveraging architect who must assume the critical role of combining all of these disparate components into a cost-effective and coordinated CRM program. Without such an architect, database marketers often have to explain to senior management why most if not all of their efforts have been a failure.

Jim Wheaton is a Principal at Wheaton Group, and can be reached at 919-969-8859 or jim.wheaton@wheatongroup.com. The firm specializes in direct marketing consulting and data mining, data quality assessment and assurance, and the delivery of cost-effective data warehouses and marts. Jim is also a Co-Founder of Data University www.datauniversity.org.