# The Application of Technology to Marketing:
# A Twenty Year Perspective

**Randall B. Bean**

Randy Bean is principal and co-founder of NewVantage Partners. He is a twenty-year marketing technology veteran. During that time, Bean was a senior executive with Harte-Hanks for many years, as well as a founder of Wheelhouse. Bean has lectured on the application of technology to marketing at the Amos Tuck School of Business at Dartmouth College. He can be reached at rbean@newvpartners.com.

When I was young, I dreamed of being a writer, not a technologist. But, luck would have it otherwise. For the past twenty years, I have been intimately involved in the application of technology to marketing. Or, to put it a bit differently, I have been intimately involved in the application of technology to help companies understand their customer relationships, and as a result, more effectively service, market and sell to those customers. The path that I have followed reflects a history of the evolution of technology and its application to marketing as it has unfolded over the course of the past twenty years.

**Early Years: Emergence of Database Marketing**

When I first went to work twenty years ago for a major commercial bank, IT departments were focused primarily on ensuring the integrity and reliability of operational systems. Banks were notable for their need and sophistication when it came to capturing transactional information on their customers. However, this information was typically housed in product silos in disparate locations using disparate database technologies. So, although a commercial bank was able to track every checking account transaction or credit card transaction of a particular customer, it was very rare at that time for any company to have developed a centralized view or perspective regarding the total customer relationship. During these years, most F1000 companies were focused on product marketing, not customer marketing. Products capabilities were the key differentiating factor, rather than customer service or customer relationship management. There was minimal demand or expectation to integrate customer information across the enterprise. In those years, not that distant, reports were produced on paper, rather than electronically. Most financial service institutions elected to outsource their marketing data processing functions to third-party service bureaus. Customer data and marketing applications were simply not an internal IT priority for most organizations.

During the mid 1980's, the way that companies approached marketing and customer management began to change. The advent of the personal computer made it possible, for the first time, for marketers to have direct access to customer information at their desktop, literally at their fingertips. This

computer and desktop technology was coupled with market factors such as deregulation in reshaping the market landscape. These developments had the effect of shifting the perspective of many companies from a product-centric focus to a customer-centric focus. For the customer-centric organization, customer information and database marketing became critical competitive weaponry in the battle for industry dominance. The ability of marketers to obtain fast answers to questions about their customers emerged as a leading factor critical that was critical to the success of many businesses.

By the early 1990's, advances in computing had made it possible to store and deliver increasingly large volumes (terabytes of data; billions of records) of customer information to the marketer at their desktop. In addition, new technologies were now making it possible for companies to disseminate this customer information to a larger audience within their organization. Database marketing and customer information began to move beyond the domain of the market research department into areas including sales, strategic planning and the executive suite. Throughout the early 1990's, database marketing applications were becoming central to customer acquisition, retention and cross-sell efforts for companies across many industries. Financial service institutions were in an advantageous position to leverage customer information due to the richness of the transactional information that these firms had been able to capture on their customers.

For firms in other industries, like retail and high tech, the vision of database marketing began to become a reality. Although frequently unable to capture transactional information in equal richness to their financial service counterparts, retailers and high tech marketers began to follow the lead of the financial service companies in their adoption of database marketing techniques and capabilities. By the mid-1990's, firms across industries had developed the means to analyze and mine customer data, and to execute marketing campaigns designed to target those customers most likely to buy their product or service. Database marketing represented a cost-effective alternative to the mass marketing techniques that had been popularized in the previous decades. The growth of database marketing had mirrored the increasing power of computing technology.

**Transition Years: The Promise of the Internet and CRM**

During the 1980's and early 1990's, the pervasiveness of desktop computing accelerated the application of technology to marketing through disciplines such as database marketing. By the mid-1990's, the emergence of the Internet created an exciting new dimension of interactivity and closed-loop marketing which held the promise of being the marketers dream. For decades, marketers had been stymied by the length of time it took to track and measure the effectiveness of marketing campaigns and marketing messages. In the mid-1990's, this limitation appeared to vanish overnight. When the Internet seemingly exploded on the scene, marketers and their evangelists quickly proclaimed the dawn of a new era of interactive 1:1 marketing. In this new epoch, marketing offers would be customized to each users needs based on interactions with the customer in real-time. It had only been a few years since database marketing had revolutionized marketing practices -- by enabling companies to narrowly target their very best customers and customer segments, based on an analysis of customer behavior and past purchasing activity. Now, companies were looking at the possibility of marketing to each customer on a 1:1 basis.

Historically, it had been exceptionally difficult for marketers to track customer transaction activity back to a specific marketing campaign. The elapsed time between marketing campaign and purchase, and the complex process by which a customer communication led to a purchase, made it nearly impossible to track these results. Catalog marketers were among the few groups that had developed sophisticated tracking mechanisms. What the arrival of the Internet heralded was the ability to interact with a customer online, and to modify and deliver relevant content and each offer to the customer, based on their last behavior or expression of interest. For the many companies enamored with the Internet, online communication became the marketing channel of the future. The reality however was different. Online purchases continued to represent only a small percentage of total customer purchases across all channels. Following the sudden fall and rapid demise of many dot.com Internet-only businesses, it became clear that online was only one channel. Marketers discovered that to be successful, they needed to integrate the online channel into the full marketing mix, operating together and in reinforcement of the full complement of marketing communications.

During the late 1990's, one more influential technology development began to emerge that would also impact marketing and customer management. As the Internet was in the process of reaching ubiquity as the interactive marketing channel, F1000 companies faced the challenge of how to integrate multiple marketing channels. Companies began to recognize that they had multiple customer touch-points, including online and offline channels, which needed to be connected. Applications such as database marketing had been developed when direct mail was the primary means of customer communication. Because of this genesis, most database marketing applications were developed around offline, batch processes that had long latency in terms of data currency.

Traditional database marketing applications represented snapshots in time, with data customarily being refreshed every thirty days. As the Internet was making interactive customer communication possible, so F1000 companies demanded faster, overnight access to up-to-the-minute customer data. Companies wanted real-time access and visibility into all of their customer interactions across mail, e-mail, web and phone. Many F1000 companies had constructed massive warehouses of customer data during the early 1990's, but now they found it difficult and time-consuming to access this data. Customer relationship management (CRM) represented a coming together of multi-channel marketing disciplines: call center, sales force automation, and marketing. In the same way that Enterprise Relationship Planning (ERP) software unified "back-office" software applications and processes for F1000 companies, Customer Relationship Management (CRM) constituted a vision for unifying all "front-office", or customer facing, applications.

The rapid emergence and proliferation of CRM companies in the late 1990's was testimony to the enthusiasm and great acclaim with which companies rushed to adopt CRM technology and applications. However, the enthusiasm for CRM exceeded the ability of most F1000 companies to coordinate the people, process and technology issues required to truly and effectively implement and execute on the tenets of CRM in a meaningful fashion. As was the case with ERP implementations, companies soon realized that CRM implementations were costly (typically into the seven and eight figures) and usually took a very long time (typically measured in years). Marketers in general, and database marketers in particular, had long understood that it takes time to measure the effectiveness of marketing programs, and that it is a process that is technically complex. Marketers understood from years of hard-earned experience that marketing is very much a dynamic process, and that customers are dynamic entities. Unlike accounting and operational applications, marketing applications are all about change, flexi-

bility and responsiveness. It can prove difficult to systematize and stabilize a marketing application when one of the central tenets of marketing is testing and iteration. Often, marketers will not know what works until they have experimented with different approaches, marketing campaigns and customer segments. The net result of this dynamic is that companies that have invested in CRM solutions have learned the hard way time after time that there are no silver bullets.

The application of technology to enable marketing remains hard work. Customer data is extensive, dirty and dis-aggregated. Transforming raw data into meaningful information that results in customer insight is an artful and arcane process in itself. The resulting irony is that companies have greater and more sophisticated technology and applications for understanding their customer relationships and communicating with their customers than ever before. Yet, in spite of the sophistication and power of the new marketing applications, the ability of marketers to apply this technology and information in a highly meaningful and integrated fashion remains elusive and lagging behind the power of the technology.

## Looking Ahead: Five Trends for the Future

As we bring ourselves up to date with the present, and look toward the future, we must ask ourselves a simple question – "so, what does the future hold?" The technological advances of the past twenty years have enriched the possibilities for marketers. But, these possibilities have yet to be fully realized. I believe the next decade will be a period of assimilation and consolidation of the gains made through the application of technology to marketing. If events unfold as anticipated, these gains will likely be achieved and manifested in the following trends:

§ **Linking people, process and technology**

The introduction of new technologies has enhanced the abilities of marketers. However, the capacity of organizations to meaningfully assimilate the steady flow of new technology has not kept up with human and process issues. Companies need to establish long-term goals for implementing and applying new customer relationship management technologies. The learning's that result from these efforts will evolve over time and come out of experience. Although the Internet has enhanced the possibility of analyzing and learning from real-time information, the ability of humans to develop the processes and abilities to gain actionable understanding from this information will require a similar and steady evolution.

§ **Digesting what has already come**

Companies need to pause for a moment and take stalk. Before firms go too far down the path of investing in and employing new technologies, these firms would be well served to make sure that they have done everything they can too assimilate, optimize and utilize the technologies that they have already acquired. This is not to say companies should not invest in new technologies. That would be counterproductive. Companies will need to continue to innovate. Many new and emerging technologies will leapfrog previously available tools. Moving forward is essential in a competitive marketplace. Having said this, companies should pause to take a deep breath and make the time and effort required to master the best of the tools that they have already acquired. BY doing this, they can employ that learning and apply it to the new technologies and appli-

cations that acquire as they evolve and innovate at the next stage of growth and development.

§   **Multi-channel marketing will be the mainstream**

Perhaps to state that multi-channel marketing is the mainstream is to state the obvious.  However, it should be noted that each of the different customer contact channels has evolved somewhat concurrently and each with its own organizational and industry champions.  In the coming years, those companies that gain strategic advantage will be the firms that are most effective in integrating all customer channels in a way that maximizes the strengths of each channel for respective customer audiences.  It is not a question of using either online or offline channels, but rather how do you use both online and offline channels in tandem to reinforce one another and better serve the customer.

§   **Marketing will have to become decentralized**

The debate over centralization versus decentralization of marketing and customer relationship management activities remains an ongoing theme and cyclical occurrence in the application and management of technology to customer relationship.  Advocates of decentralization, of which I am one, will argue that decentralization gives those groups that are closest to the customer, and to each customer segment, the authority and responsibility for managing and servicing the customer relationship.  Regardless of philosophical position, the reality of mergers and acquisitions, globalization and the like is that most companies will have to manage diverse and decentralized customer relationships and customer development initiatives.

§   **Perhaps we will get to 1:1**

The notion of 1:1 marketing has been widely discredited and held in low esteem during the past couple years.  However, this decline in reputation was due more to the utopian promise and grand expectations that were created around this notion than its merits.  The concepts of customer relationship management and 1:1 marketing remain fundamentally sound.  Who would argue with the concept?  It is in the execution where we have failed to live up to expectations.  The reality is that we are closer to 1:1 customer communications that we ever have been before.  The ability to customize customer communications based on real-time interactions, and close-the-loop as a result, is within our reach.

So long as expectations are established and managed appropriately, which means within reason, chances are good that we will realize much of the promise of these new technologies and applications over time.  We must realize that we have come a very long way during the past two decades, and that neither the construction of Rome nor the great application of technology to marketing and customer relationship management, will have occurred within a single day.

NVP

**NewVantage
Partners**