

Major Data Challenges: Infrastructure, Quality, Privacy

Karlene Lukovitz, Sep 08, 2010 05:00 AM

The integration of online and offline marketing data will enable levels of targeting never before possible. But to get there, marketers and their suppliers will need to overcome data infrastructure, quality and privacy challenges, points out a new white paper from the Winterberry Group, Acxiom and Netezza.

The "Changing Mission of Marketing Data" paper reports results of in-person, phone and online surveys of more than 175 marketers, agency executives, data compilers and technology developers, and also includes quantitative and qualitative research from Winterberry and independent industry studies.

In 2009, purely online-derived data represented \$410 million -- or just 5.3% -- of U.S. companies' total \$7.8 billion investment in marketing data and associated services (including hosting, hygiene, analytics and other functions), estimate the researchers. Between now and 2012, the total per-annum investment is projected to stay at about \$7.8 billion, but the portion devoted to digital sources/applications is expected to jump to \$840 million, or 10.8%.

Still, that means that despite a doubling of digital data/services spend, and a 6.4% decline in spending on direct mail-related data/ services over the three years, direct mail will still account for nearly 90% of annual data investments.

That speaks to the continuing effectiveness of direct mail for acquisition targeting on a large scale (despite rising postal costs and other challenges), and to online data's role as a complement to it, rather than a replacement, says Winterberry Managing Director Bruce Biegel. "The real power lies in the combining offline and online data" and becoming smarter about optimizing data from each of the data channels, including the burgeoning number of online channels, in order to achieve one-to-one targeted marketing, he says.

The first set of challenges to achieving and leveraging integrated data on a large, actionable scale are based in technology and infrastructure, the report concludes. Whereas existing marketing databases were built around the concept of customer records (a customer name and associated transactions and other known data about that customer), much of the data being generated through Internet channels (such as video and image views) are unstructured, meaning not tied to a specific customer or organizational pattern.

Making unstructured data useful within a "formulaic" marketing environment will require unified platforms that compile, standardize and segment digital and traditional sources to make them appropriately actionable in near real-time -- all of which will require process controls, storage technologies and segmentation algorithms that can efficiently manage high data volumes and progressively "learn" from past performance, the paper points out. In other words, the industry will need a new, cross-channel structure "marked by key competencies in analytics and technological integration" that supports data deployment across media and can enable executing campaigns in "milliseconds" instead of days or months.

Organizational structures and changing priorities can pose obstacles to such integration efforts. Given the tendency to lock marketing budgets into traditional media and C-level management's tendency to shift resources fleetingly to spur testing/innovation tied to specific goals, integration technology and analytics platforms, while showing advancement, "still have to prove their ability to generate results across different kinds of campaigns in full 'roll-out' mode, rather than sporadic tests," the researchers state. Furthermore, scale remains a paramount issue: a true "digital transformation" demands the availability of enough information to drive large-scale programs across broad audiences, they stress.

At the same time, the industry will need to tackle challenge #2: data quality across channels. "Today, even the most savvy digital marketers struggle with conflicting collection methods that degrade the usefulness of their digital data sets," the paper points out. "The problem is compounded by the absence of universal 'best practices' to inform the collection of visitor-provided insights (i.e., ensuring that Web visitors provide truthful information) or guarantee that inferred data falls within generally accepted confidence levels."

However, in many respects, privacy issues -- specifically, the "still-unsettled question of what standards count as 'responsible' with respect to data security, transparency and consumer choice" -- represent the most difficult challenges to realizing the potential of integrating offline and online data, the research concludes.

While marketers "overwhelmingly" indicate they want to abide by a set of universal data collection and use best practices, "rapid technological proliferation and the continuing threat of regulation are raising concerns about their ability to collect and use virtually *any* online data, especially when that information is embedded with personally identifiable elements," the paper points out.

Sheila Colclasure, public policy and privacy officer for Acxiom, Americas, says that Acxiom views the keys online, as well as offline, as adhering to the fundamentals of transparency and choice -- as well as value -- for the consumer.

But since understanding how data may be used is a critical prerequisite to integrating it effectively across channels, that objective will be thwarted to some extent until the various constituencies involved -- including publishers and e-commerce vendors, agencies, advertisers, data exchanges and audience management platform providers, as well as consumers and the government -- can come to terms on under what circumstances data on audiences, behaviors and transactions can be collected, used and disclosed.

One result of these challenges and needs will be a shakeup within data-driven service providers, predict the researchers. While the already bewildering array of vendors -- including online data compilers and exchange platforms, database management vendors, publishers/e-commerce platforms and technology-focused "performance optimization" providers -- looks like it will become even more fragmented, the "winning" providers are likely to be those driven by "deeply entrenched customer relationships" as well as integration of new and established targeting technologies, they point out.