
Real time: The next frontier for analytics

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Abstract In 1999, 'The Cluetrain Manifesto' warned that 'markets are conversations'. Finally, some 15 years later, software, hardware, mobile and social media vendors have come together to provide tools that allow companies to join and manipulate the conversation. This paper provides a quick overview of the available hardware and software solutions; a discussion of the in-memory landscape, including the strengths and weaknesses of the competing products; and a summary of the latest developments in the social media monitoring space. Given the importance of personalisation and one-to-one advertising for increasing traffic, raising customer conversion rates and increasing average order value, these systems can either be a company's best friend or its worst enemy.

KEYWORDS: augmented reality, in-memory systems, personalisation, CRM, social CRM, real-time marketing, content marketing, social media monitoring, social media sentiment, social media context

INTRODUCTION

In 1999, Rick Levine, Christopher Lock, Doc Searle and David Weinberger wrote 'The Cluetrain Manifesto',¹ the first thesis of which was: 'markets are conversations'.² In the following 94 tenets, the writers stressed how the internet was revolutionising the way businesses should communicate with their customers and that businesses that failed to adapt and treat their customers with respect, their customers would desert them. Its tone was at times irreverent — 'Companies need to realise their markets are often laughing. At them'; and at other times deadly serious — 'We want you to take 50 million of us as seriously as you take one reporter from

The Wall Street Journal'. Its prescient warning that 'We are immune to advertising' foresaw the impending social media revolution that gave users a platform on which to subvert and circumvent normal advertising channels.²

As 'The Cluetrain Manifesto' points out, 'Real-time marketing is the execution of a thoughtful and strategic plan specifically designed to engage customers on their terms via digital social technologies'.² Wikipedia expands this definition, defining real-time marketing as

'marketing performed "on-the-fly" to determine an appropriate or optimal approach to a particular customer at a

particular time and place. It is a form of market research inbound marketing that seeks the most appropriate offer for a given customer sales opportunity, reversing the traditional outbound marketing (or interruption marketing) which aims to acquire appropriate customers for a given “pre-defined” offer’.³

Real-time marketing is inexpensive compared with the cost of traditional paid media. ‘Expensive research, focus groups, and awareness campaigns can be replaced with online surveys, blog comments, and tweets by anyone or any business’.²

Successful mobile advertising requires three things: reach, purity and analytics. Reach can be fostered by accessing accounts through multiple platforms like blogs, geofencing applications, over-the-top (OTT)⁴ services, mobile apps, QR codes, push and pull services, RSS feeds, search, social media sites and video-casting, among others. Purity refers to the message and its cleanliness: if the data are unstructured and untrustworthy, they are basically useless. Data governance is paramount for real-time advertising to work properly. The third ingredient, analytics, ‘involves matching users’ interests — implicit and explicit, context, preferences, network and handset conditions — to ads and promotions in real time’.⁵ An explicit interest would be an easily quantifiable one, ie one that could be manually added to a database, while an implicit one might be a user’s behaviour patterns, ie something indirectly expressed.

Successful marketing is about reaching a consumer with an interesting offer when he or she is primed to accept it. Knowing what might interest a consumer is half the battle to making the sale and this is where customer analytics comes in. Customer analytics has evolved from simply reporting customer behaviour to segmenting customers based on their profitability, to predicting that profitability, to improving those predictions (because of

the inclusion of new data), to actually manipulating customer behaviour with target-specific promotional offers and marketing campaigns. These are the channels where real-time marketing thrives, and this is where a company can gain a powerful competitive advantage when using it.

For a real-time platform to work, data must be gathered from multiple and disparate sources, such as enterprise resource planning (ERP), customer relationship management (CRM), and social CRM platforms, geofencing⁶ applications (like Jiepan and Foursquare), over-the-top services (like WhatsApp and WeChat), mobile apps, augmented reality apps, and other mobile and social media systems. The data must be collected and then seamlessly integrated into a data warehouse that can cleanse and prepare the data for consumption.⁵ As the authors state:

‘The analytical system must have the capability to digest all the user data, summarise it, and update the master user profile. This functionality is essential to provide the rich user segmentation that is at the heart of recommendations, campaign and offer management, and advertisements. The segmentation engine can cluster users into affinities and different groups based on geographic, demographic or socio-economic, psychographic, and behavioral characteristics’.⁵

This translates to a lot of data and businesses today are faced with the issue of how to deal with such massive volumes, which, in some cases, come from hundreds of different sources, including point-of-sale (POS) counters, other customer transactions systems, CRM and social CRM databases as well as a multitude of social and mobile platforms. Some companies will feel overwhelmed by such volumes of data, while others will see one of the greatest business opportunities of the 21st century. Most major software

vendors are clambering for market share, but they have to walk a fine line as their clients might be faced with complex legacy systems that might be integrated with software from other competitors. Any changes to these systems could be very costly. In-memory computing — the storage of information in a server's main random access memory (RAM) rather than in complicated and comparatively slow relational databases — has been all the rage over the past few years and vendors like IBM, Oracle, Microsoft, SAP and Teradata are all fighting for superiority.

HARDWARE: IN-MEMORY

In-memory solutions that utilise a system's RAM to quickly detect and exploit patterns in massive data warehouses almost on the fly have been around for decades. IBM's solidDB and Oracle's TimesTen date back to 1992 and 1996, respectively, but these systems were developed as niche products and are not useful for today's mass ERP markets.⁷ Current in-memory heavyweights include IBM, Teradata and SAP. Microsoft and Oracle will be introducing their in-memory solutions in mid-2014, with In-Memory OLTP (formerly Hekaton) launching alongside Microsoft SQL Server 2014.

As reported in *Information Week*, IBM's BLU Acceleration is specifically developed for analytics:

'but IBM also offers all-flash storage arrays as a way to eliminate disk I/O bottlenecks and speed transactional applications and database performance. Flash isn't as fast as RAM, but it's much faster than disk. IBM says these arrays cost far less than adding in-memory database technology and still can reduce transaction times by as much as 90 per cent'.⁷

Microsoft's PowerPivot and Power View Excel plug-ins allow for some in-memory analytics functionality such as formatting

and filtering one's data, creating calculated fields, defining key performance indicators and creating user-defined hierarchies, but 'this client-side approach can create disconnected islands of analysis with disparate data models and versions of information from user to user'.⁷ This negates a lot of the reason why one would want to install an in-memory system, namely, to structure data within the entire organisation so everyone can be drawing off the same data warehouse, data marts and analytics foundations.

Oracle's answer for in-memory analytical performance, Exalytics, faces similar limitations.⁷ This caching appliance overlaps with its Exadata machine, creating more copies of data, and it also requires a TimesTen or Essbase in-memory database licence. In addition, the Oracle Database 12c In-Memory Option will not be released before the first quarter of 2015 at the earliest.

SAP advertises that its Hana platform can run an entire company, 'including both its mission-critical transactional applications (like ERP and CRM), and its analytic needs (things heretofore handled by the separate database management systems (DBMSes) underpinning data warehouses and data marts)'.⁷ IBM's BLU Acceleration for DB2 'combines both columnar compression⁸ and in-memory processing to accelerate analytics'.⁷ Teradata's Intelligent Memory 'automatically moves the most-often-queried data into RAM to ensure fast-as-possible query response'.⁷ Unlike SAP's HANA solution, however, IBM's BLU and Teradata's Intelligent Memory solely address analytics, not transactional applications.

Today, few would argue that in-memory performance beats disk-based performance, but there are two important questions companies venturing into this field must ask — how much faster will an in-memory system run my queries; and,

more importantly, how exactly does this speed differential affect my business and my all-important bottom line? Return on investment is a vital consideration and, as with most new computing systems, it is a hard metric to calculate.

To answer the first question:

‘Estimates vary depending on disk speed and available input/output (I/O) bandwidth, but one expert⁹ puts RAM latency at 83 nanoseconds and disk latency at 13 milliseconds. With 1 million nanoseconds in a millisecond, it’s akin to comparing a 1,200-mph F/A-18 fighter jet to a garden slug’.¹⁰

To answer the second question, a few industry case studies from *Information Week* might shed some light on the subject.¹⁰ For example:

- Online gaming company Bwin.party uses in-memory capabilities to handle 150,000 bets per second. This compares with its normal system rate of 12,000 bets per second.
- For retail services company Edgenet, ‘in-memory technology has brought near real-time insight into product availability for customers of AutoZone, Home Depot, and Lowe’s. That translates into fewer wasted trips and higher customer satisfaction’.¹⁰
- ConAgra, an \$18 billion-a-year consumer packaged goods company, ‘must quickly respond to the fluctuating costs of 4,000 raw materials that go into more than 20,000 products, from Swiss Miss cocoa to Chef Boyardee pasta’¹⁰ so uses an in-memory system to assist in material forecasting, planning and pricing. It also taps its in-memory solution to make company promotions more relevant by using faster analysis, allowing ConAgra and its retailer customers to command higher prices in an industry notorious for razor-thin profit margins.

- Maple Leaf Foods, a US\$5 billion-a-year Canadian supplier of meats, baked goods, and packaged foods, finds that profit-and-loss reports which ‘used to take 15 to 18 minutes on conventional databases now take 15 to 18 seconds on their in-memory platform’.¹⁰
- Temenos, a banking software provider that uses IBM’s in-memory-based BLU Acceleration for DB2 system, reports that queries that used to take 30 seconds now take one-third of a second thanks to BLU’s columnar compression and in-memory analysis.

For Temenos, in particular, such a difference in speed means that mobile customers will be able to quickly retrieve all of their banking transactions on their mobile devices, rather than just their last five, which could mean the difference between handling customer issues on a mobile device rather than in a company store. ‘Online or mobile interaction costs the bank 10 to 20 cents to support versus \$5 or more for a branch visit’, meaning that the cost savings are substantial.¹⁰

One caveat here about in-memory speed: the abovementioned speed advantage will never be captured completely because there are too many constraints (such as CPU processing time) that affect the overall performance. ‘In-memory performance improvements vary by application, data volume, data complexity, and concurrent-user loads, but HANA customers report that the differences can be dramatic’.¹⁰

PERSONALISATION

The potential to market to an individual when they are primed to accept such advertising is advantageous for both parties. Marketers do not waste time advertising to consumers when they are not primed to accept the advertisements,

and can focus their marketing to consumers when and where they might want to use said advertisements.

Composing the marketing message, however, is probably the easiest part of the process. In its 'Delivering new levels of personalization in consumer engagement' survey, Forester Research found that participants believed that personalisation had the potential to increase traffic, raise customer conversion rates and increase average order value.¹¹ Surveyed marketers felt that personalisation capabilities could improve a variety of business metrics, including customer retention (75 per cent), lifetime customer value (75 per cent) and customer conversion rates (71 per cent).¹¹

These survey participants see e-mail, call centres, corporate websites, mobile websites and physical locations (such as stadiums, sporting venues and hospitality sites) as today's key customer interaction channels, but reported that their future marketing efforts would be 'focused on mobile websites, applications, and social media channels'.¹¹

Understanding customer-specified preferences is imperative for personalisation:

'80 per cent of marketing executives currently use them in some or all interaction channels. In addition, 68 per cent of marketers personalise current customer interactions based on past customer interaction history. Other commonly used personalisation methods used by nearly 60 per cent of firms in some or all of their interaction channels are based on the time of day or day of the week of customer interactions'.¹¹

According to Forester Research,¹¹ the difficulties of personalisation include:

- continuously optimising campaigns in response to a customer's most recent interactions;
- optimising content or offers for each person by matching identities to available products, promotions, messages, etc;
- creating a single repository containing structured and unstructured data about a consumer;
- delivering content or offers to a consumer's chosen channel in real time for the purposes of conversion; and
- analysing all available data in real time to create a comprehensive, contextually sensitive consumer profile.

The executives polled by Forester Research expected also there to be a 'huge rise in personalisation using consumer's emotional state, social media sentiment, and context'.¹¹

'Only 29 per cent of respondents claim today to use inferences about the consumer's emotional state in some or all channels. But 53 per cent expect to do this in two to three years' time. Only 52 per cent of marketers currently use sentiments that consumers express in social media to personalise interactions today, but fully 79 per cent expect to do this in two to three years. In addition, only 54 per cent capitalise on the consumer's current contextual behaviour, but 77 per cent expect to do so in two to three years' time'.¹¹

AUGMENTED REALITY

Augmented reality (AR) works by 'displaying layers of computer-generated information on top of a view of the physical world'.¹² It is 'a technology that alters the perception of reality by distorting it, allowing escape from it, and enhancing it — all at the same time'.¹² Webopedia defines AR as:

'... a type of virtual reality that aims to duplicate the world's environment in a computer. An augmented reality system generates a composite view for the user that

is the combination of the real scene viewed by the user and a virtual scene generated by the computer that augments the scene with additional information. The virtual scene generated by the computer is designed to enhance the user's sensory perception of the virtual world they are seeing or interacting with. The goal of augmented reality is to create a system in which the user cannot tell the difference between the real world and the virtual augmentation of it. Today augmented reality is used in entertainment, military training, engineering design, robotics, manufacturing and other industries'.¹³

Analysts predict that the AR market will grow from roughly US\$181m in revenues in 2011 to nearly \$5.2bn by 2016.^{14,15} By 2017, more than 2.5 billion mobile AR apps will be downloaded to smartphones and tablets annually; 3.5 times the number of 'Angry Birds' downloads in 2011. Anticipated market growth and trending investments have led the *Harvard Business Review* to predict that AR will soon have an impact on everything from advertising, to location services, to healthcare, to relationships, to the very nature of knowledge.¹⁶

According to a recent press release from Gartner, 'augmented reality is the real-time use of information in the form of text, graphics, audio and other virtual enhancements integrated with real-world objects' and will become an important workplace tool.¹⁷ In the words of Tuong Huy Nguyen, principal research analyst at Gartner: 'AR leverages and optimises the use of other technologies such as mobility, location, 3D content management and imaging and recognition. It is especially useful in the mobile environment because it enhances the user's senses via digital instruments to allow faster responses or decision making'.¹⁷

Gartner believes 'AR technology has matured to a point where organisations can use it as an internal tool to

complement and enhance business processes, workflows and employee training'.¹⁷ Gartner believes that 'AR facilitates business innovation by enabling real-time decision making through virtual prototyping and visualisation of content'.¹⁷

Wearable AR devices such as Google Glass 'allow users to access standardised sets of instructions for a particular task in real time, triggered by environmental factors and overlaid on the user's field of vision'.¹⁶ 'AR allows for improved senses and memory through the capture and enhancement of the user's perspective. By recording audio-visual information, capturing images and removing elements that obscure the senses, AR technology allows users' eyes to act as cameras, and can enhance the senses in ways not available naturally, such as night vision or the ability to zoom in on far-away objects'.¹⁶

AR uses location-based data for navigation, overlaying digital maps and directions on real-world environments.¹⁷ Through the lens of an AR device, a user can receive visual guidance based on GPS technology.¹⁷ AR services generally fall into one of two categories — 'location-based or computer vision. Location-based offerings use a device's motion sensors to provide information based on a user's location. Computer-vision-based services use facial, object and motion tracking algorithms to identify images and objects'.¹⁶

AR's benefits include the 'potential to improve productivity, provide hands-on experience, simplify current processes, increase available information, provide real-time access to data, offer new ways to visualise problems and solutions, and enhance collaboration'.¹⁶

Augmented reality has many potential applications in the gaming and hospitality industry. While some potential applications of AR might currently seem like science

fiction, they are in fact within today's realm of possibility, and would indeed take the concept of personalisation to another level. The gaming industry, for example, might be one of the few industries to develop AR applications, as it not only has the financial muscle and the need for in-memory computing platforms, but also has the databases of patron information necessary to make this complicated and holistic system work.

The article, 'Augmented reality and hospitality ... the next generation of hotels?',¹⁸ lays out a very interesting scenario for AR in a hospitality establishment, whether that be a hotel or a casino property, namely providing front-desk staff with Google Glass to connect them to the company data warehouses. These systems would be able to provide staff with real-time patron information, empowering them to greet and interact with a patron on a truly intimate level. The hotel clerks would have access to all of the patron's past history and, perhaps even be tipped off about the recent news headlines associated with them, ie, the recent triumphant box office numbers of a movie star's latest release could be commented upon. This type of engagement would bring the concept of customer service to a whole new level, one that would be unlike anything these patrons had ever seen before — a rare thing in an industry that can treat VIP guests like royalty.

Even for the mass premium side of the business, a guest who had previously stayed at the property would be immediately identified and all of his or her preferences and necessary patron information could appear on the Google Glass virtual screen.

'The guest could be checked in before they even reach the door. The extent goes further as restaurants could identify guests allergies or preferences, orders would be recognised by dish then linked to the table

and guest images shown to see who has ordered what so the food is served to the correct person'.¹⁸

Birthday or anniversary greetings could be offered up without having to research a patron's profile. Many of these things could be triggered right from the CRM system and relayed to the hotel staff, but all of this requires 'research, time and a good long memory, which not everyone is blessed with'.¹⁸

The one glaring drawback that might make this scenario difficult to implement is the fact that facial recognition technology is still unreliable. However, facial recognition technology might not be needed at all because most people are already carrying around a very powerful tracking device with them already — their mobile phone.¹⁸ The above scenario could be realised today if telcos or an OTT service provider like WeChat pushed the phone and location data into the casino's databases, where it could be matched with a patron record before being surfaced to the front-facing hotel staff. This kind of data pull could, with in-memory computers, happen almost instantly.

For the patron, AR could enhance the on-property experience considerably. By simply downloading the casino property's AR app onto their mobile phone, the patron could be checked in virtually and given personalised directions to his room, where hotel staff members could greet him appropriately. A free bottle of champagne or Lafite wine (and accompanying Sprite for those Chinese high rollers who like to mix a five-thousand dollar bottle of wine with a one dollar soda) could be awaiting him. The casino's general manager could appear in a video to offer a personal greeting as well.¹⁸

Continuing with the patron's AR journey, he could go to one of the integrated casino resort's restaurants and,

upon seeing an appetising meal being brought out from the kitchen, he could whip out his mobile phone, snap a picture of the meal, quickly scan it on the hotel's image restaurant database, discover that it is a dish of beef wellington, and then, potentially, place an order for it.¹⁸ If interested, the patron could even pay for the dish on his mobile device, possibly using his patron points to cover the bill.

After dinner, if the patron is interested in going to one of the hotel bars, a quick scan of the line of people waiting to get into the bar would reveal the wait time. If the AR system connected with the hotel's patron system (which would reveal that he was a high-roller whose casino patron card allowed him to skip the line), the patron could be advised that he could jump the queue. If the patron did not have such a vaunted status but did not want to wait, he could be shown the name and location of the hotel's other, less crowded, bars.¹⁸

The AR app could also help with hotel maintenance. As a user scans his or her hotel room, the app could record any minor maintenance issues. These issues would not be highlighted for the user, but would be relayed to the appropriate hotel maintenance departments so that they could be fixed.¹⁸ This, of course, does raise privacy issues, but they are nothing a good lawyer could not overcome.

Continuing on the patron's AR journey, if he liked to play golf, a quick scan of the course with the AR app would reveal the average par shots. If he chose to play, the app could even track the score. Local structures could also be explained so that the patron could discover nearby areas of interest. Discounts on services could also be pushed out and, if coupled with a dynamic pricing system, these discounts could help sell what might otherwise be empty seats in a concert venue or a restaurant.¹⁸

For sports betting websites, AR could be used to offer live odds on players

during a soccer match, a basketball game or on a horse being paraded before a race. A punter could point his mobile device at a player on a soccer pitch or on a basketball court or on a television and see live odds on that particular player to be the next goal scorer or to be named the 'man of the match' or the game's most valuable player. Bets could be made in one easy click and odds would be updated live throughout the game or just before a horse race goes off.

A punter at a horse track could point his or her mobile device at a horse and get not only the odds for that horse to win, but also a plethora of other bets, including such exotic bets as exactas, trifectas, daily doubles or pick 6 wagers. Once the tote pool closes, the system should be able to generate a projected payout on such types of complicated bet. Sophisticated analytical systems could generate odds on the fly, even on such complicated hypothetical bets as a four-way multinational parlay on the San Miguel Beermen of the Philippines Basketball Association to beat the San Mig Super Coffee Mixers (real team names, by the way) coupled with a greyhound race in Crayford, England, with a third leg that contained a scorecast bet on Wayne Rooney to open the goal scoring in a 4–0 rout of Aston Villa, to a 2/5 lay on Manny Pacquiao losing his next welterweight title fight in Macau. Currently, in-memory computing systems could, theoretically, handle these kinds of betting combinations, as well as produce on-the-fly risk assessments for the sports betting company making those bets, which would allow them to instantly tweak their odds to cover their liabilities.

SOCIAL MEDIA MONITORING

In 1999, 'The Cluetrain Manifesto' warned: 'Reviews are the new advertising'. Today, this is truer than ever. A multitude

of platforms allow users to rate a restaurant, a retail establishment, a hotel, a casino property or even a local handyman or plumber. Used properly, reviews can be the new advertising currency for a company's marketing department. Companies such as Dell, Cisco, Salesforce.com, the American Red Cross and Gatorade are creating social media command centres that monitor the social conversations about them. These social media centres enable company employees to monitor conversations from the social web on channels such as Twitter, Facebook and YouTube (among others) in an attempt to keep track of the health of the company's social brand.

In December 2010, Dell became one of the first companies to launch a social media command centre. Based at company HQ in Round Rock, TX, 12 full-time employees monitor conversations about Dell and its products around the globe, responding via @DellCares or forwarding the post to the right internal team.¹⁹ Through Dell's Social Media Listening and Command Center, Dell aggregates and culls through the 25,000 conversations about Dell every day (more than 6 million every year).¹⁹ 'We're monitoring conversations in 11 languages 24/7, and each one is an opportunity to reinforce our brand', explains Karen Quintos, Dell CMO.¹⁹ She adds:

'With the tremendous amount of information being generated, we can track basic demographics, reach, sentiment, subject matter of the discussions, the sites where conversations are happening, and more. We leverage these analytics to identify customer support needs as they happen, influence product development, insert ourselves into conversations with IT decision makers and connect with people having the most impact on these conversations'.¹⁹

Scott Gulbransen argues that:

'To do the command-centre model right, a setup has to envision a real-time workflow empowered to take action on all of the relevant content being analysed, whether it be insights derived from real-time monitoring, opportunities to respond, or great discovered content to feature that elevates you and your fans'.²⁰

Gulbransen also recommends breaking down a command centre into the following critical functions:

- *identify trends and insights*: track not only the key themes, but also how they evolve over time;
- *review the content*: monitor a wide variety of terms that are meaningful to the brand and assign employees to sort through the responses, deciding which ones warrant a response, and what might interest the community at large;
- *curate the best stuff*: leverage the great content that is being said about the company and champion those great content providers; and
- *listen and respond*: this is a two-way conversation — listen and respond quickly and accordingly.

CONCLUSION

In 1999, Levine *et al.* stated that 'Markets are conversation' and, over the past decade, a plethora of social media listening tools have come online to prove those words prescient. These platforms can track user sentiment on social media networks like Facebook, Twitter, RenRen, WeChat, Weibo, YouTube, Jeipang and Foursquare, among a multitude of others — and the number of new platforms coming online is growing by the day.

'For years, marketing professionals have been talking about creating a relationship between brands and consumers. The missing link has been realised in the rise of new free social marketing and social technology

platforms that enable dialogue among consumers, peers, and brands on a global scale'.²

That missing link has also been greatly enhanced by the rise of sophisticated mobile platforms and in-memory computing that allows for a single repository for consumer data and real-time profiling. These platforms have the capacity to select and target consumers with the right content at the right time, coupled with the power to deliver personalised marketing messages to any channel of choice.¹¹

To succeed, real-time, context-aware personalisation marketing should meet or exceed a consumer's expectations by providing proactive, contextually-relevant content, which should be based upon a customer's location, his or her most recent interactions, and any potential overriding customer sentiment.¹¹ Marketing channels should be aligned with consumer behaviour and mobile and social media should be looked at as the most important marketing channels in the not too distant future.¹¹ Collecting piles of data is one thing, but a near real-time content management system can provide real value to an audience, and, by association, to a brand or an organisation.²⁰

As 'The Cluetrain Manifesto' so prophetically warned over 15 years ago, 'There are no secrets. The networked market knows more than companies do about their own products. And whether the news is good or bad, they tell everyone'.¹ Today, we live in a real-time, 24/7 world; a world where 140-character Twitter messages foment political revolutions; a world where marketers should fear not the power of the pen but the power of the critical tweet or the destructive force of an inflammatory social media diatribe that can encircle the digital world in seconds, laying waste in minutes to a reputation that might have taken years

to develop. Conversely, it is also a world in which an advertiser's message can go viral and reach more eyeballs in less than an hour than a multi-million dollar television commercial campaign can in a month.

These powerful new systems can be a marketer's best friend or their worst enemy — that decision is up to you. But be warned, it will be made and, more importantly, judged in real time.

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