
Content meets big data: Driving personalised digital engagement through customer understanding

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Abstract Today's digital marketplace is a playground for consumers and marketers alike; an environment generating enormous volumes of data that can be used to craft enticing digital campaigns. Consumers are leaving digital footprints at numerous touch points that marketers can use to facilitate dialogue, using data to set strategy, create experience, and if successful, ultimately drive conversation and customer loyalty. A shift from database-driven approaches, marketing by gut feel and the massive uptake of social media has led to extremely active digital exchanges of opinions, behaviours and preferences. Now, using technology that can understand multichannel information, from various sources including big data, the door has opened for digital marketers to make decisions and drive results based on facts, data and the intelligence and insights derived from human information. This paper discusses the current marketplace, the way technology can be leveraged to garner intelligence, and best practices for engaging customers and increasing the bottom line.

Keywords: marketing analytics, web optimisation, web experience management, rich media management, personalised digital engagement, social media monitoring, big data

INTRODUCTION

Every seven to ten years, technology changes in unfathomable ways and the past decade is no exception. Today, every step a consumer takes leaves digital footprints that can be collected and

analysed by organisations interested in unravelling, in a scientific manner, what their audiences want.

What truly exemplifies the paradigm shift, however, is the ability to have genuine dialogue with consumers and

Every 60 seconds

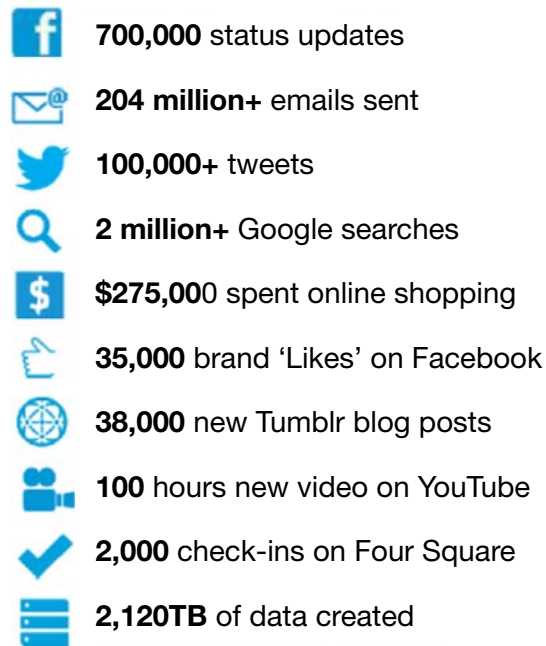


Figure 1: The volume of digital events taking place every minute.

target audiences. Before this shift, the exchange of opinions, behaviours, preferences and more was mostly driven by assumptions and information captured in databases. Traditionally, marketers led more by gut feel, informed by the decisions reached in strategy meetings and the ideas of thought leaders with their finger on the pulse of the market.

Today, there is a new way to drive results and it is based on facts, data and the intelligence and insights derived from big data; information that can only be grasped by using technology that can decipher the codes needed to reveal — quickly — the right next step for a competitive business.

THE CONSUMER IN THE CROSSHAIRS

The landscape today can be described as the age of the consumer, where it is not the business itself, but consumers deciding how they will be served. The uptake in social

communications, mobility and advances in technology have all brought forward profound changes in customer expectations.

The size of the playing field is also bigger. There are approximately 2.1 billion people using the internet,¹ all creating information at astonishing speeds. Every minute, 100 hours of video are uploaded to YouTube, 350,000 tweets are generated, 208,000 photos are posted on Facebook, Google is searched 3.5 million times and 120 new LinkedIn accounts are opened (Figure 1).² People are putting themselves out there in the online world: speaking their mind via reviews, choosing brands by 'liking' them on Facebook and making their behaviour known simply by the frequency of their visits to certain sites, the contents of what they search for and where they choose to click to on a particular website.

For professionals managing digital programmes, this online data trail provides a wealth of information that can be used

to power analytics engines, revealing the ‘what, when and how’ of motivating target audiences. From these analytics engines, it is possible to know what programme appeals to what segment of consumer, or what time in a transaction is ideal for presenting a certain offer, based on previous behaviours.

USE CASE SNAPSHOT

Marketing optimisation and information analytics technology can be used to increase the effectiveness of a marketing campaign. The following steps can be taken, using technology to automate analysis, accelerate fact-finding and provide the necessary data to chart the best course.

Assess the market scenario

During initial planning, identify the best matching markets, segments, geographies and demographics for the campaign theme. Leverage market insights to optimise target profiles and communication channels.

To assess the marketing scenario, use a marketing optimisation and analytics solution to:

- build, validate and refine assumptions by monitoring major topics and hot and breaking trends;
- unlock insights in customer surveys, clickstreams, customer relationship management notes, chats and call centre logs;
- uncover potential opportunities that might have been overlooked.

Understand the competitive landscape

Staying ahead of the competition may make or break a campaign. As part of the planning process, capture and explore competitive insights for opportunities to exploit in messaging, offers, communications, etc. During execution, monitor competitors’ moves and tune the

campaign, as needed, to counter new competitive threats.

To stay up to the minute on the competitive landscape, the following actions are required:

- Monitor market sentiments towards the company and its competitors.
- Look into the main concepts behind the sentiments.
- Uncover hot and breaking topics specific to competitors.
- Find out what the share of voice is and why.
- Keep up this practice of exploration throughout the campaign to see how these parameters trend over time.

Identify influential voices and channels

Social media channels play an increasingly important role in the customer purchase process, making it important to establish a clear understanding of the sphere of influence in the target market. Identifying the most influential voices and understanding what they are saying is critical in developing an engagement strategy for proactively addressing concerns and complaints before they negatively impact brand perception.

To identify influential voices and channels, the following actions are required:

- Extract a list of top influencers.
- Look into their postings and engage them, as needed.
- Keep tabs on their sentiments and fine-tune the weightings associated with the influence factors (eg number of Twitter followers, frequency of posts), as necessary.

Cross-correlate results and explore for breakthroughs

During the execution phase of the marketing campaign, analyse any correlated effects between lead rate and

other factors, such as sentiments and customer web experience. Explore concepts and topics to uncover hidden issues that require actions. For example, it may be necessary to monitor call centre logs and chat records to gauge if customer agents are effectively providing the needed information to customers and prospects.

Mine results to uncover hidden insights by:

- exploring patterns and trends in lead rates relative to customer touch points, such as chat, e-mail, call centre and clickstream;
- uncovering concepts and topics that may be positively or negatively affecting lead volume/quality;
- leveraging newly-found intelligence either to up the ante to expand success, or to take remedial actions to rescue anaemic performance.

ANALYSING THE DATA

At first, it might seem easy enough to consider how to analyse information, especially when one looks at the challenge in a database mindset. All the data should be collected, segmented into the main categories and analysed for trends. This might work in situations that allow longer lead times for decision making. But for a retailer with an item that has Facebook ablaze because everyone wants it, speed is of the essence and the company website had better be promoting the right content, on the right pages, with the right imagery to capture the audience that may land on the site in search of the item. If an organisation does not have the tools to make this sequence of events happen, the opportunity is lost and the customer goes elsewhere.

But more precisely, the solution to this challenge is not just about structured data processing. It is also about realising what

type of information is out there and whether it is understandable using existing technologies. Today, the vast majority of data are unstructured — nearly 90 per cent — so cannot fit into the rows and columns of databases. Even if an organisation had its database processes sufficiently organised to move quickly, the reality is that the information that contains all the important meaning — reviews, texts, voice recordings, images, social interactions and other types of information — is unstructured. This information is human — it is diverse, contains ideas, has context and it uses slang, symbols and pictures (Figure 2).

THE SPEED OF ANALYSIS

It is said that to eat an elephant, the task should be undertaken one bite at a time — but this approach does not apply to the huge datasets amassed from the clickstreams, sensors, voice recordings, Twitter feeds and Facebook posts that can flow into an organisation and contain extremely valuable customer data. The size of data has taken quantum leaps, moving from mainframes and kilobytes to client/server and megabytes, to the internet and gigabytes, to big data, cloud and mobility and zettabytes. Using traditional methods, by the time an answer is reached, the data are stale and the customer is long gone.

To understand big data, it takes powerful technology that can understand the information regardless of the channel it came from, so insights can be gleaned fast enough to take real-time action. Only with sophisticated analytics capabilities can an organisation truly keep up with today's customers.

Another dependency is whether the chosen technology can aggregate the information under one 'analysis umbrella' — to understand its many diverse formats, including video, audio, images, texts, web

Human Information is made up of ideas, is diverse, and has context.
 Ideas don't exactly match like data does; they have distance.
 Human Information is not static – it's dynamic and lives everywhere.
 Legacy techniques have all fallen short.

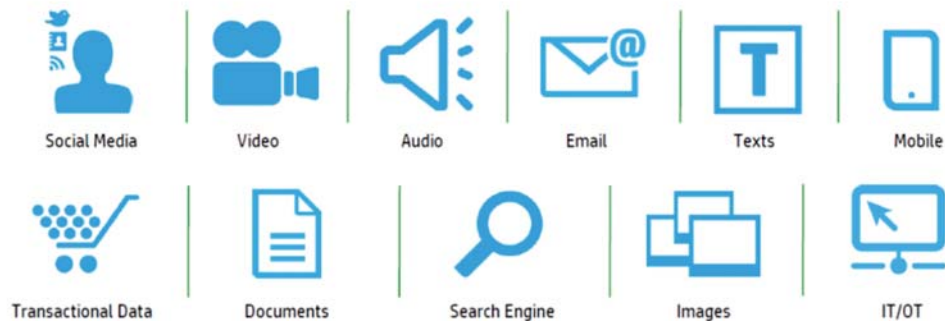


Figure 2: The majority of information today is human-generated and unstructured.

data and even structured data. For instance, a company may want to combine customer data with demographic information to draw meaningful correlations as to what that customer may want, based on their income or educational background.

THE NEED TO GET PERSONAL

A good example of seeing data in action is to zero in on an always addressable consumer (herein called Ray) and follow him through his decision making and purchase process to see what can be understood to affect the way an offer is marketed. Ray considers himself technologically savvy; he is out there being mobile, living a connected social life in the cloud, creating and consuming a wealth of information at myriad touch points, and he just landed on Photospot's website.

What is known about Ray at this point? In general terms, it is known that in 2013, the 'always addressable customer' made up two-thirds of all consumers under the age of 45, making them a force to be reckoned with.

But more than that, Ray reveals his location via his IP address, along with the date and time of day of his visit, the device and operating system he is using, where he came from (referral site) and what keywords he used to find Photospot. As it is Ray's first visit, there is no clickstream behaviour yet. At this point, a digital marketer is ready to spring into action, if certain answers to a host of questions can be discovered, such as:

- How did Ray land on the site?
- Has he been using the company's mobile experience?
- What did he come to the site to do?
- What is his history?
- What will cause Ray to convert?
- How does Ray differ from another loyal customer?
- How does he utilise the digital experiences?
- How can the company engage Ray effectively?
- How can the company route him to the right area of the site?
- Is Ray getting the right answers?
- Why did he leave the site?

With the technology available today, an organisation can start forming its relationship with Ray by finding out that he did a keyword search on 'photography tours', visited a website specialising in photography tours to Patagonia and checked reviews of the tour guide. Now, the picture is becoming clearer. This customer is interested in photography and is probably booking travel. It is also possible to segment Ray with other customers who are photography enthusiasts.

MANY SYSTEMS AND CHANNELS MAKE UP THE FULL STORY

More can be learned from the string of touch points available from pages visited, if in fact the information is being gathered. If there is technology in place that can combine data gathered from different departments and/or systems (for instance, marketing and IT), this knowledge can be put to work to serve this customer the right offer at the right time to ensure he converts to a sale (or whatever is the desired action). Testing can also make this process more effective, as in the following use case snapshot.

USE CASE SNAPSHOT

There are multiple types of experiment to ensure that the right content gets delivered to the right visitor, including:

- *A/B/n split testing*, to test radically different page concepts and gain initial insights and direction for multivariate testing;
- *simple multivariate testing*, which allows marketers to easily test offers, price points, images and content on their sites simultaneously; and
- *full-page multivariate testing*, which enables marketers to test millions of content variations and test relationships

among elements to identify optimal combinations for any web page.

In the marketing dance, the ultimate question is always how to get to know Ray better. According to Gartner, mobile, social, cloud and information comprise the nexus of forces that make new business opportunities and challenges, and the basis of the technology platform of the future.³ Finding the solution that leverages these forces can be the linchpin in a successful digital marketing programme.

Certain information can be gathered to determine how to send the right message to Ray. His device may indicate a specific demographic, prompting the digital marketer to send a specific offer, content and even imagery. But, of course, this information has to be captured. From there, decisions can be made, such as:

- Is the right image on the website?
- Does the company have the right image to engage?
- Does the company push the right format to a mobile phone?
- Is the experience consistent from web to mobile to print media?

Several decisions can affect the flow of a successful marketing campaign. Who collects all these data? How can an organisation make sense of it and then expose Ray to a good experience and ultimately convert him to a buying customer? If businesses do not have the right technology and systems in place not only to gather, but also to understand the information, the opportunity to use it is lost.

NOT ALWAYS A LINEAR PATH

It is important to consider that not all of Ray's communications can be tracked. For instance, after looking at photography tours online, he stopped in at a local

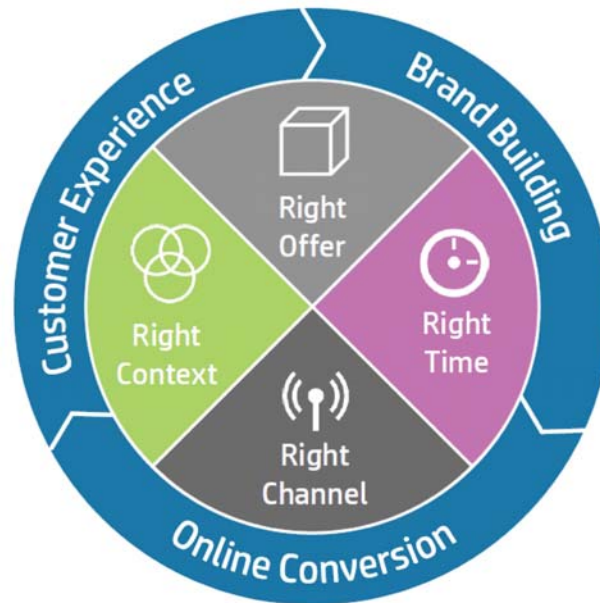


Figure 3: Successful customer conversations require a strategic, fact-based mix of the right channel, offer, timing and context.

camera shop to look at lenses. He read newspapers that day to help him make his decision. The consumer's journey is not linear; it can jump from online, to bricks and mortar, to a print ad, and then start over again. Several steps could make up the full buying process. Customers have so much information at their fingertips and the digital marketer's job is to be there to deliver an amazing experience at exactly the right moment (Figure 3).

With all of the information gathered to date on Ray, Photospot is pretty much on a personal name basis with him. Sentiment has been captured based on chats at a blog and through registrations at a site to get more technical information. It is possible to know that the lens Ray seeks is a professional grade lens, not a simple one for an average photographer. Such data all contribute to Ray's profile and help the marketer understand what makes him tick.

GETTING THE VISUALS RIGHT

Working in conjunction with all of the

right data, it is important to push out the right visuals. In Ray's case, there is a certain level of lens that would be appropriate for his trip. But what if he is shown the wrong lens? Perhaps something that is lower end, or not as powerful as he may need. Timing is everything and having a rich media warehouse in order can make or break this deal.

Sophisticated marketing analytics capabilities allows an organisation to be sure that the facts about the prospect are accurate, allowing the conversation to be much more personal and targeted. Ray can be steered to finding what the digital marketer knows he wants, because the data have been gathered, analysed and used to push relative content that matches what Ray has made clear he needs.

An offer can go beyond just the right image. It can be delivered with a related fact sheet, information on service plans, links to more reviews and even customer reference sites. A marketer can push out the kind of information that has helped buyers like Ray make their final decision.

BIG DATA AND BIG CONTENT

This is where big data becomes big content. All of the data and understanding that drive a consumer to purchasing are used to engage them in a personal experience that builds the brand and communicates to them in their own language.

But content is not just about words — it is about delivering it in their preferred context: online; mobile; even in a social setting. This requires the right infrastructure in place to drive content in the appropriate format. If the online experience says one thing, but mobile something else, the organisation will lose the consumer.

For example, if the customer is aged 65 or older, and they get to a website that shows images of families and children playing in the garden, or hipsters on skateboards, the content does not make the connection. So, not only does a digital marketer need to understand the customer's desires, but the infrastructure must be in place to understand the organisation's own content; images of products, videos, web copy that can be delivered on the right site, the right page and in the right format, based on the target audience.

This is where digital asset management (DAM) helps to deliver the experience that the customer is hoping to find so they become ready to buy. An advanced DAM system allows organisations with globally distributed teams to deliver a more engaging and consistent customer experience by effectively managing, distributing and publishing thousands of customer-facing digital assets. Organisations benefit from higher-impact marketing and communications, greater agility, stronger brand equity, increased team productivity and the security of knowing that valuable corporate assets will be fully leveraged and preserved for the future.

WHAT TO LOOK OUT FOR

Technology islands

When a marketing infrastructure is built over many years, even decades, various pieces of technology may no longer be compatible. If systems cannot communicate, it is unlikely that useful intelligence can be derived from multichannel data. These gaps in understanding can easily derail a marketing strategy or at the minimum create issues that are not easy to recognise.

Missing the 'multi' in multichannel

If there is a channel in the mix that is hidden from analysis, that analysis will inevitably leave out part of the puzzle. Incomplete results can lead to inaccurate assumptions and missed opportunities. This makes it imperative to use a solution that offers a 360° viewpoint of all marketing-related information — inside and outside the enterprise.

Rear-view mirror analysis

Relying solely on post-mortem analysis can leave a programme strategy two steps behind. Customers make decisions in the moment, which means real-time analysis is a critical must-have.

Uncontrolled messaging

When a marketer can control the message — which markets and/or segments to cover, who to target, how to reach that target and what 'calls-to-action' or offer to make — it is possible to capture high-quality leads. The ability to send the right message requires the ability to capture and understand customers' and prospects' opinions and competitors' moves. With this type of horsepower, the digital marketer has the kind of control needed to have an impact on the campaign.

Building loyalty

Loyalty does not just happen. Every single

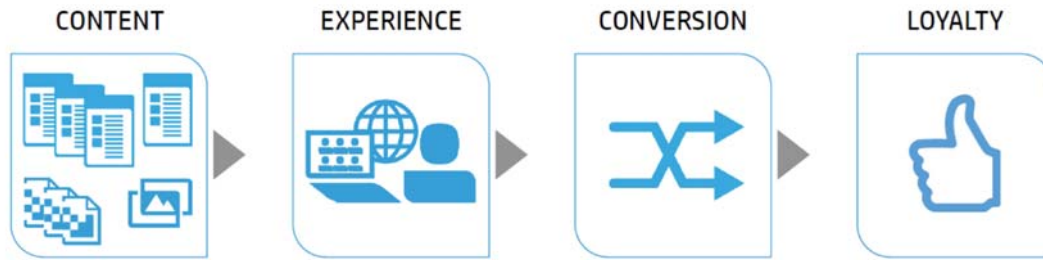


Figure 4: Building loyalty is a step-by-step process that uses customer information to deliver the right content and experiences

customer interacts online in their own particular, and different, way. Some go straight to a website from their laptops; some visit via their mobile devices. Others follow a company's Twitter feeds and Facebook pages. No matter how customers choose to reach a company, each expects an individualised online experience — one that both makes interacting easy and provides targeted content (Figure 4).

Using the latest web content management solutions, digital marketers can read and understand all information — from e-mails to blogs, images and social interactions — in real time, to provide customers with exactly what they want and how they want it.

WAYS TO GAIN MORE INSIGHT

With capabilities available in the latest marketing optimisation and information analytics technology, companies can get deeper insight into data and set or adjust strategies, as required using the following techniques;

- *Understand the concepts and context of all data:* Discover the 'unknown unknowns' with technology that can draw new correlations.
- *Sentiment and vibe analysis:* Determine how positive, negative or neutral a sentiment is, for the entire interaction or a segment of the interaction.

- *Clustering:* Automatically partition customer interaction data so that similar information, even of varying formats, is clustered together to identify inherent themes and discard irrelevant batches of content.
- *Related concept generation and idea distancing:* Automatically categorise concepts in relation to one another by identifying vital relationships between seemingly separate subjects.
- *Hot and breaking topics:* — Automatically detect burning topics across interactions with 'hot' clusters. Be alerted to new areas of information or individual interests in real time with 'breaking' clusters.

BRINGING ALL THE INTERACTIONS TOGETHER

Customers interact with brands in a number of ways, whether via a website; using mobile apps; contacting a call centre or visiting retail locations. They also interact by engaging other customers and prospects on social networking platforms. Each of these interactions is an ingredient in the overall customer experience and each individual ingredient is important to understanding — and ultimately revealing — a true picture of the customer. Using multichannel marketing optimisation and information analytics technology enables digital marketers to understand all data,

structured and unstructured, to leverage valuable insights and create more meaningful interactions with multichannel customers.

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