

White paper



Under the lens:

Addressing business challenges with real-time analytics



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Summary

Finding the right intelligence from your data and using it at the right time can be extremely overwhelming for today's businesses. With the explosion in the creation and collection of data, it can be a mammoth task to simply distinguish between useful and useless information. However, businesses who don't at least try to augment traditional analytics with real-time analytics can miss out on time-sensitive opportunities.

Those that use real-time analytics need tools that can provide concise, relevant information at the same pace that they make decisions. Organizations without instant insight into marketing campaign success and content engagement can't improve upon them when necessary. Successful analysis and decision-making need to be built on a foundation of accurate and complete data.

This report will speak to the power of real-time analytics with specific use cases to the modern digital enterprise, provide the latest industry statistics and trends and discuss the most common challenges to success.

Industry trends for real-time analytics use

Real-time analytics is defined as the use of, or the capacity to use, available enterprise data and resources on demand. 'Real-time' can, of course, refer to the instance where data is processed, in milliseconds. It can also refer to something that is 'near real-time,' which takes longer than the aforementioned definition of real-time, but is still less than one second.



Market trends surrounding business intelligence

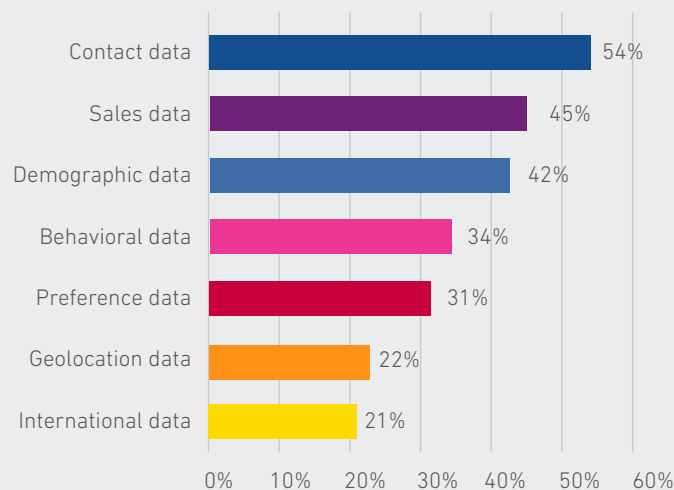
The allure behind real-time analytics lies in the fact that business users are able to make immediate decisions with the collected data. However, in the annual data quality benchmark report conducted by Experian, it was discovered that almost all organizations (99%) recognize that the use of data in general—not just in real-time analytics—is essential to business success. Contact data tops the list (54%) when it comes to the type of data that organizations believe to be essential. This is followed by sales data (45%), demographic data (42%), behavioral data (34%), and preference data (31%).

In fact, in addition to real-time analytics, organizations are also increasing the use of predictive analytics as part of a greater business intelligence strategy. Predictive analytics refers to the use of datasets to accomplish objectives such

as modifying business processes, influencing marketing messages, and predicting the lifetime value of each customer. While the main differentiators between predictive and real-time analytics lie in the application of skills and technology, as well as timeliness of response, both branches of analytics indicate a sophisticated approach to data usage.

Let us be clear, however. Comparing predictive analytics and real-time analytics isn't a direct apples-to-apples comparison. Real-time more so refers to the use of data to make decisions and indicates a company's level of maturity around analytics. Predictive has more to do with answering the question of, "What will happen?" using the data a company already has.

Chart 1
Types of data most essential to business success



The statistics behind real-time analytics

According to Experian's research study concerning real-time analytics, it was revealed that 73 percent of companies currently use real-time analytics to some capacity. The majority of companies (42%) use it to tailor their email campaigns. This should come as no surprise, since email is now an integral component in consumer/business communications and can be tied to key revenue generation initiatives. When used effectively, it is a true competitive differentiator. And because an email nowadays can include several design elements, the ability for organizations to immediately analyze user receptivity, the use of social sharing buttons or calls to action, and being able to quickly apply changes becomes increasingly important.

The next most common ways that businesses implement real-time analytics are to have more intelligent customer services (29%), adjust marketing messages (25%), predict customer behavior (23%), adjust customer messages

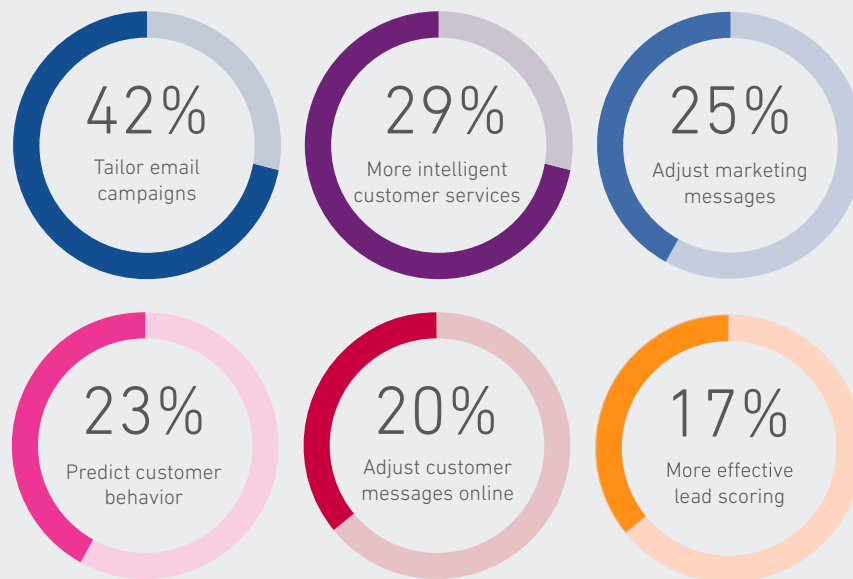
online (20%), and for more effective lead scoring (17%). A logical conclusion to draw from these responses is that implementing real-time analytics for improving the quality of consumer interactions is growing in importance.

Companies feed a wide variety of information into their analytics models. The most popular data types used are purchase history (58%), user behavior (43%), and relationship information (43%). These trends are to be expected as consumers now demand and expect tailored and innovative business interactions. If businesses deliver any less than what their consumers expect, it can affect their ability to stay competitive and relevant.

How organizations use real-time analytics

Real-time analytics usage continues to grow, particularly because businesses are struggling to meet rising consumer expectations and an always-changing environment. The term 'real time' is often thought of as analytics done

Chart 2
Ways companies use real-time analytics



faster. The distinction, however, is that business users can perform instant analyses and implement improvements or modifications as they see fit.

The real-time approach is largely proactive in nature, revealing inaccuracies or inefficiencies in a much more timely manner than typical data analyses. This isn't to say real-time analytics should replace all other forms of analytics—remember, there are certain aspects of decision-making (e.g. strategic planning, trend analyses, compare and contrast, etc.) that require the use of historical data more so than real-time data.

A/B or multivariate testing for Ecommerce

Real-time analytics makes a powerful use case for either A/B or multivariate testing. It may be helpful to distinguish between the two first.

A/B testing - Also known as split testing, A/B testing compares two variants to see which one performs better. This type of testing is most often used to observe user interaction on a webpage and is most effective when the organization has identified explicit things to test.

Multivariate testing - Multivariate testing is a much more complex approach to testing because it introduces more variables into the equation than A/B testing. Similar to A/B testing, multivariate testing takes the data gathered from real-time user interactions to see which aspects of each

test perform the best and cherry pick those aspects for optimization. Unlike split testing, organizations are able to test and improve upon many more variables.

Content optimization

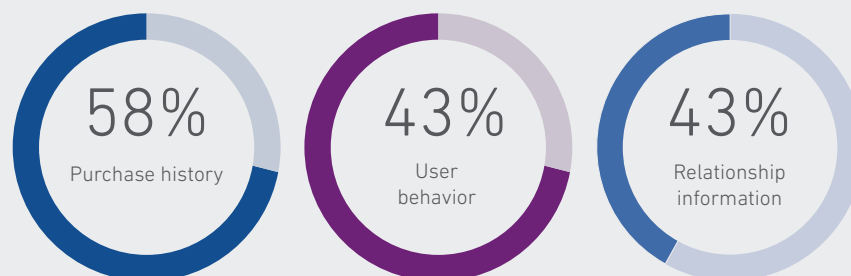
Implementing real-time analytics in an Ecommerce setting allows, for example, developers to run a split test (the duration of which would depend on the amount of site traffic they have to obtain significant results), observe the results in a timely basis and make multiple changes within a short timespan. This is extremely useful for teams that need to make numerous UX/UI, language, or design changes frequently.

Cross-channel optimization

The terms cross-, multi-, or omni-channel vacillate frequently in the B2C industry; however, the heart of it remains the same: businesses are trying to keep pace with a new generation of consumer who engages across channels, expects personalization, and demands instant gratification. In short, organizations are trying to provide a seamless experience customized to each individual. There are a couple of critically important use cases that real-time analytics offer, particularly for industries like finance, healthcare, travel, and retail. Listed below are a few examples of use cases.

1. A seamless experience

Chart 3
Most popular types of data used



Processes and technologies that enable businesses to target cross-channel end users are doing so in the name of creating as seamless and uninterrupted an experience as possible. However, this is made more difficult since consumers engage businesses through several channels, leaving behind unique footprints and interactions in each channel.

Real-time analytics helps businesses create optimal user experiences. Rapid decision making to websites, emails, or Ecommerce experiences and near real-time improvements to shipping, inventory, and pricing make this particular branch of analytics particularly important in providing customized experiences across all channels. Remember, the consequences of not meeting consumer expectations are far-reaching and long-lived.

2. Personalized up- and cross-selling

A “Dear John” copy and paste is no longer sufficient personalization for consumers. They expect to be engaged with the right content delivered at the right time. The more customized and timely the messages, the better.

For example, being able to observe purchase history and detailed activity will enable businesses to recommend up- or cross-sell opportunities, or perform other personalized actions with the immediacy and availability that people expect. Certain companies use real-time analytics particularly well in increasing up- and cross-selling opportunities (think: Amazon’s product recommendations and Expedia’s hotel suggestions). The presence of personalized up- and cross-selling recommendations are the markers of a business that both listens to its end user and recognizes it’s better to do with than without.

Capturing, analyzing, and predicting consumer

interactions

There are near limitless ways that end users interact with your business. Information is constantly streaming in through dozens of sources and touchpoints, which means there are just as many opportunities to learn what matters to consumers.

For example, consumers who are in the process of buying a home or making travel plans interact with many businesses through many touchpoints—and they expect instantaneous, relevant results for all of them. Real-time personalization saves time, money, and brings the consumer to their end goal that much faster, which spells increased customer loyalty, conversions, and a better competitive edge.

By knowing what consumers engage with and how they engage with it, you can pair historical knowledge of likes and dislikes and begin to predict their wants and needs.



Addressing the challenges with real-time analytics

As you might expect, the successful implementation of real-time analytics does come with its fair share of challenges. In fact, according to the same research study concerning real-time analytics by Experian, 85 percent of companies face challenges related to analytics. The biggest challenges were cited to be inaccurate data (35%), gaining insight quickly enough (25%), and a lack of internal resources (25%).

These results should not come as any surprise, as inaccurate data and an ill-defined data strategy are root causes of the inability to gain insight quickly enough or accurately enough. A successful real-time analytics requires a flexible team as well as the technological resources that can make changes right away.

The other challenges have to do with having too much data that it hinders analytics (23%), not having enough data which also hinders analytics (20%), and lacking the budget to invest in analytics (21%) at all. These challenges reveal the growing pains from viewing analytics as a nice-to-have—and treating subsequent investments in strategy development and personnel training with that same lack of commitment—to a need-to-have.

Prioritizing proper data governance

Organizations now must prioritize the management, governance, and monitoring of data if they wish to employ real-time analytics effectively. To expand, data should be regularly and proactively managed to meet precise business standards. This ensures that organizations have control over their data assets instead of being unable to use them to their fullest extent.

Proper data governance involves three important aspects:

1. The people

Businesses must create defined roles within their organizations for who will own and be responsible for the data assets. Because real-time use of data requires constant monitoring activities to detect and correct problems, having a dedicated team to govern data is extremely important. These data owners will also be accountable for the quality of the data and the support of data quality initiatives throughout the company. Creating defined roles for the governance and management of data ensures that real-time analytics initiatives are aligned with business needs and communicated properly.

2. The process

After selecting the group of people who will take ownership of data, processes must be developed to manage data. These include documenting how data will be stored, moved, changed, accessed, and secured.

3. The technology

The technology behind real-time analytics is the last piece behind the proper prioritization of data. Examples include technology that will enable cross-channel views of the consumer as well as a way for business users to eliminate siloed pockets of information from disparate sources.

Data—good data—is at the heart of every analytics initiative. But the path to obtaining and using good data is only achievable when organizations start prioritizing it, not as a destination, but as continuous milestones to refer to. Building a data governance strategy with defined stakeholders and procedures are key in having successful analytics initiatives.

Enriching data for better interactions

Instilling a practice of good data governance is the first step in addressing the challenges of real-time analytics; you must get the foundation of your data before doing anything else. After accomplishing that, you can then start building on to the foundation—via data enrichment.

At times, the intelligence delivered by real-time analytics isn't enough to build a complete, robust consumer profile—at least not enough for businesses to cut through the noise. Organizations that look to make even more informed decisions, (based on consumer intelligence like life events, interests, financial data, automotive data, etc.), look to data enrichment services.



A robust data enrichment service has three main capabilities that augment real-time analytics:

1. Providing real-time contact data verification

Before any downstream data enhancement, profiling, and scoring can occur, the data is verified for accuracy. Contact details like name, address, telephone, and email are verified and standardized, and questionable data is flagged, in order to avoid downstream costs of inaccurate data.

2. Enhancing and appending data with additional insight

After that incoming data is verified, the next step is to paint a more robust picture of the consumer. Data is enriched with external third-party information such as demographic, geographic, or psychographic intelligence.

Data enrichment can be very effective when implemented in real time; businesses can perform much more effective and accurate routing and prioritization when they know exactly how they can help their audience.

3. Using predictive analytics to deliver consumer profiling

With an accurate and complete profile in place, organizations can deliver predictive analytics at the point of dialogue so that business decisions can be made in real time. Analytics have their greatest value when they are delivered at the point of decision making/action. Successful organizations use this approach to their competitive advantage to support their decisioning strategies, which can include things like lead qualification or next-best-action strategies.

Conclusion

Real-time analytics is one component of a highly effective digital strategy. Being able to build out a robust consumer profile based on historical and immediate data makes real-time analytics a powerful addition to optimizing marketing efforts and consumer experiences.

Effective real-time analytics should empower businesses to make improvements to their digital initiatives; it should help them answer the questions: What is happening right now and what can I do to improve it?

At the end of the day, data analytics should help businesses enhance efficiencies, transform consumer

experiences, continually innovate their business, and reduce unnecessary costs. We live in a digital age where data is the undercurrent for any and every decision made. If organizations cannot properly collect, manage, and analyze their data, they lose the ability to remain competitive and innovate their business.

Real-time analytics can be a powerful addition to an organization, but the underlying factor to an effective analytics strategy lies in the proper management of data assets and truly understanding how to make sense of and use that data. in a meaningful way.

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