

# How a Major Health Care System Utilized Google BigQuery to Create Automated Reporting Dashboards

## SUMMARY

- InfoTrust worked to implement automated reporting dashboards by integrating marketing platforms with BigQuery

## GOALS

- Create standardized methods and conventions of pulling data to eliminate inefficiencies
- Increase analysis time by establishing automated reporting

## APPROACH

- InfoTrust engineers constructed a data lake in BigQuery so that reports could be built in Google Data Studio
- Linked campaign reporting to Google Analytics data to provide a more holistic picture of performance

## OUTCOME

- Built nearly 20 pages of reporting by talking directly to marketers to define reporting requirements and produce wireframes. Once approved, reports were created to measure website, natural search, paid search, email, and social media marketing channel performance.
- Less reliance on analytics team members due to self-service reporting leaving more time for insight generation and analysis
- New data visualization components reflect a fresh consistency in reporting

## THE CLIENT

The client is a large health care system based in the Midwest. The client's services include, but are not limited to, primary care and family medicine, heart and vascular care, and orthopedic care. Their 35,000 employees reach patients at over 600 points of care.

## THE PROBLEM

Our client had a number of reports but not a singular view to gauge how effective their marketing campaigns on various platforms were performing, and how they related to outcomes on the client's website.

They also wanted to gain a better understanding of their data by improving their reporting capabilities. Our partner wanted to limit the time spent creating reports to focus on optimizing their campaigns.

This health care system had four main issues they needed InfoTrust to help resolve:

### 1. None of the reporting was automated

The client felt they spent unnecessary hours each week working on creating reports in programs like Microsoft Excel. They were looking for solutions that could automate the work for them.

### 2. Reporting was siloed

Without reporting governance, the various teams

did not have standardized methods and conventions of pulling data to ensure consistency.

### 3. There was no self-service reporting

Team members either needed to wait for a report to be produced for them, or make decisions without data entirely. This problem limited understanding of data that was collected, and in turn, made decision-making much more difficult.

### 4. Data governance for tagging conventions needed implementation

A lack of up-to-date, reliably implemented tagging conventions resulted in the client being unsure as to how campaigns performed. Our client needed to clear up these discrepancies so automated reporting could occur.

These problems inhibited their progress in achieving their ultimate goal—analyzing if marketing campaigns were truly effective at accomplishing desired outcomes on their website.

## THE SOLUTION

InfoTrust helped integrate all the client's marketing platforms (Google Analytics, Salesforce, Google Search Console, Facebook, Twitter and Instagram) into [BigQuery](#).

[There are many advantages](#) to utilizing BigQuery, Google's serverless cloud storage platform designed for large data sets. Above all, InfoTrust's engineering team utilized BigQuery so the health care ministry could handle a lot of data at a little cost—leading to faster and clearer insights.

In short, InfoTrust specialists aided the client in building a data lake in BigQuery. A [data lake](#) is a centralized storage space for unstructured, raw data.

BigQuery integration allowed all data to be viewed together and summarized for reporting inside [Google Data Studio](#).

Google Data Studio can be integrated with BigQuery easily through the out of the box data connector. This is where the client is able to create aesthetically appealing, fully customizable dashboards that help teams and departments make meaning of the data they've collected.

InfoTrust also worked closely with stakeholders to define reporting requirements and definitions. This allowed

all teams to reach a common level of understanding.

Additionally, the health care ministry began using InfoTrust's UTM app in order to automate tag governance. This solved many of their data governance issues and cleaned up reporting to see the true performance of their campaigns.

## THE RESULT

The InfoTrust team helped the health care system automate their reporting processes, so they could spend more time analyzing results to improve marketing performance (and spend less energy on time-consuming tasks such as simply compiling the reports).

Automating these processes allowed employees to conduct self-service reporting, so they weren't overly reliant on one person to generate reports.

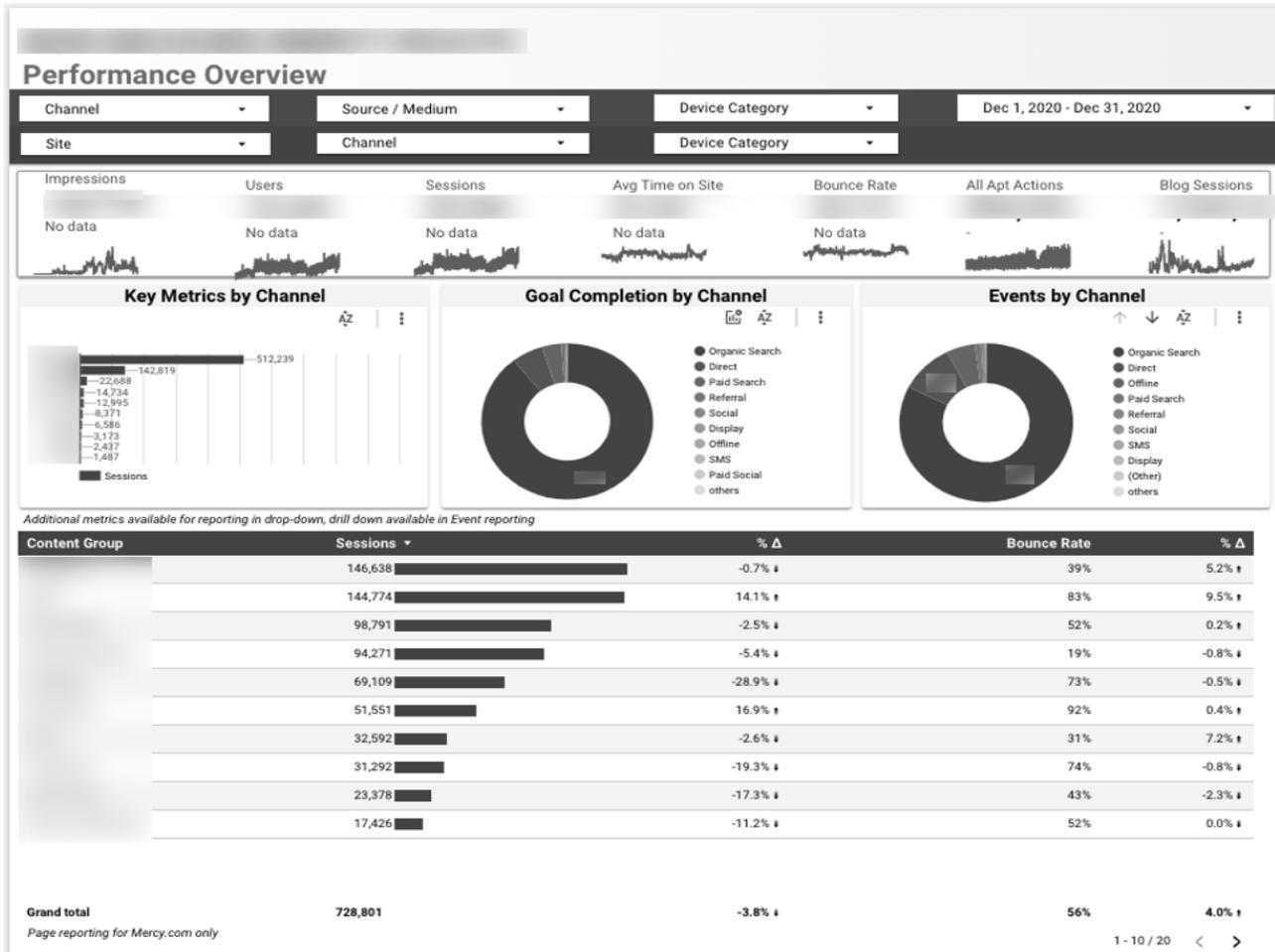
InfoTrust helped the client work through a very defined process to narrow in on the reports they needed most. InfoTrust also defined and produced wireframes for approval that set the groundwork for new reports. The end result was nearly 20 pages of newly created reports for their website, natural search, paid search, email, and social media marketing channels.

Due to the tag governance overhaul, every channel (social, email, etc.) is now linked and matched to Google Analytics data. This information is captured on Google Data

Studio to provide a more holistic view of recent marketing efforts.

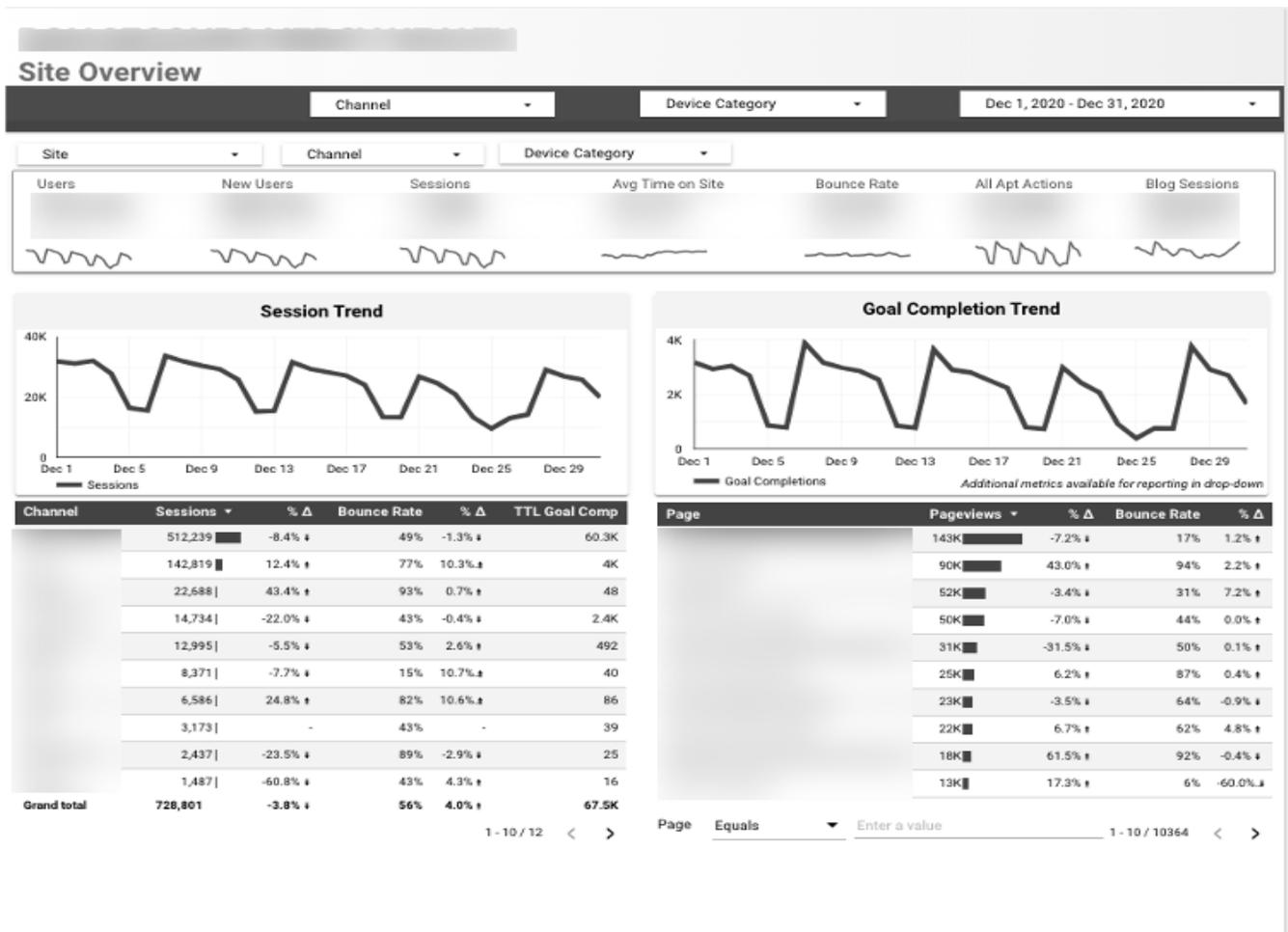
Of course, these changes were not made in isolation. Because the reporting is no longer siloed, teams and departments felt that the new dashboards and data visualization components reflected a newfound consistency in reporting. This enabled individuals to perform their job more effectively because they could focus on analyzing and answering questions, not simply exhausting all their time by merely 'pulling the report.'

## DASHBOARD EXAMPLES



**Exhibit A:** Our client can investigate how well different channels and content groups are performing compared to each other over a specified date range on this Performance Overview dashboard.

## DASHBOARD EXAMPLES (cont.)



**Exhibit B:** On this Google Ads view, the health care system is able to see which campaigns are performing best over time by evaluating numerous metrics including impressions, cost per click (CPC), pages per session, bounce rate, and many more.

## DASHBOARD EXAMPLES (cont.)



**Exhibit C:** This Social Overview concisely displays everything from engagement trends to engagement by platform. Similar dashboards can be utilized for other marketing initiatives, such as email campaigns.

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