

SQL: increasingly relevant to digital agencies

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The requirement for SQL skills is growing among digital agencies, which are skilling up in database management in anticipation of the shift away from third-party cookies.



Source: © everythingpossible [123rf](#) The requirement for SQL skills is growing among digital agencies

This approach allows for campaigns to be managed with a more holistic view of the customer, based on insights found inside first-party data and systems.

Brands and agencies that get this right will be more efficient and agile in how they target their audiences with tailored messaging as the world continues to move away from third-party cookies

Browse any social media feed and you're likely to come across a video or post advocating that you learn SQL to supercharge your IT career. These SQL fans have a point. In today's data-saturated world, skills in data management and the language used to speak to databases are in higher demand than ever.

And it's not just in the world of traditional data warehousing and business intelligence (BI), either.

A shift from third-party cookies

It's no secret that agencies and the brands they support depend on data and algorithms to personalise their advertising messages on programmatic platforms as well as to optimise costs and performance.

The way they've always done this, is by harvesting data from third-party cookies to track users across different websites and platforms, then use this data about customers' behaviour to target them with content that is relevant to their interests and context.

This approach allows companies to hit the customers with the highest propensity to convert with the right message at the right time.

But we're seeing a steady shift away from third-party cookies as regulators worldwide impose tougher data protection policies.

Advertising more expensive

Less data means that it's not as easy for agencies and their clients to reach customers and prospects with a tailored message.

It also means that advertising could potentially become more expensive because advertisers will not be able to avoid the wastage that goes along with speaking to customers that will be less likely to be interested in what they are selling.

That is, of course, unless we find an alternate approach. In his recent column Grant Lapping, Digital Executive at +OneX, outlined how data modelling provides just such an alternative.

An alternative approach

Structured Query Language (SQL) — a programming language used to manage data stored in relational database management systems — is one of the magic ingredients we need to bring advanced data modelling to life.

SQL is one of the most common database management languages in the world — and a key to tapping into the full power of digital data.

Bigtech companies such as Google and Microsoft employ the SQL language and respective syntax to power their database products.

But the language is becoming increasingly relevant in the world of digital media as companies look to tap into the power of customer data in relational database for targeting and personalisation in their digital campaigns.

Commands in a daily advertising campaign

The advertising platforms, which are themselves powered by databases, don't employ SQL manipulation of data. But databases such as BigQuery do.

BigQuery is a serverless, scalable, and cost-effective cloud-based data warehouse. We can use BigQuery's extract, transform and load (ETL) capabilities to dynamically prepare first-party data and upload it into compatible advertising services such as Google Ads through using an application programming interface (API).

This enables us to use SQL commands in daily advertising campaign management for superior targeting, based on the data the programmatic platforms hold about their users combined with first-party data from systems such as customer relationship management (CRM).

Taking control of your data connectors

Of course, generating automated reporting dashboards for data visualisation and analysis is nothing new.

Powerful commercial BI tools such as Microsoft's PowerBI and free-to-use visualisation tools such as Google Data Studio use a range of data connection techniques to transform data into informative, easy-to-view dashboards and reports.

While native data connectors are available for these tools, many companies rely on expensive third-party data connectors such as SuperMetrics and Windsor.ai. Services for managing third-party data from digital platforms.

While third-party data connectors are a quick solution, they have other drawbacks besides their high cost.

Customisation of metrics with these connectors is limited, and a company cannot tailor what it wants to measure and report as comprehensively as it might like to.

Cutomisation and lower costs

By contrast, using its own SQL expertise to perform ETL on the data it holds and connect it to reporting automation tools, gives a company the power to customise metrics and dimensions to its specific business needs at a lower cost.

Digital advertising platforms provide guidance on how to use their APIs and connect data to databases through API calls. Once a developer with SQL skills is accustomed to these setups, this approach offers a cost-effective automated solution for reporting.

SQL based databases, such as Google BigQuery, can connect natively to BI tools such as Google's DataStudio and PowerBI.

APIs can also be used to feed a company's first-party data into ad platforms such as Google Ads and Facebook Ads Manager to inform their machine learning algorithms and enrich customer engagements.

With smart use of SQL and APIs, automation of digital media reporting and data visualisation thus does not need to be expensive.

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