Netflix: Using Big Data to Drive Big Engagement

Unlocking the Power of Analytics to Drive Content and Consumer Insight

NETFLIX   TERADATA.

Non-Stop Testing and Learning Yield Business Results

In today's hyper-connected world, businesses are under enormous pressure to build relationships with fully engaged consumers who keep coming back for more.

In theory, fostering more intimate consumer relationships becomes easier as new sources of data emerge, data volumes continue their unprecedented growth, and technology becomes more sophisticated. These developments should enable businesses to do a much better job of personalizing marketing campaigns and generating precise content recommendations that drive engagement, adoption and value for subscribers.

Yet achieving an advanced understanding of one's audience is a continuous process of testing and learning. It demands the ability to quickly gather and reliably analyze thousands, millions, even billions of events every day found in a variety of data sources, formats and locations—otherwise known as Big Data. Technology platforms crafted to gather this data and conduct the analyses must be powerful enough to deliver timely insights today and flexible enough to change and grow in business and technology landscapes that morph with remarkable speed.

Netflix, an undisputed leader and innovator in the over-the-top (OTT) content space, understands this context better than most. It has staked its business and its brand on delivering highly targeted, personalized experiences for every subscriber—and has even begun using its remarkably detailed insights to change the way it buys, licenses and develops content, causing many throughout the Media and Entertainment industries to sit up and take notice.

> Netflix has created two highly successful dramatic series—*House of Cards* and *Orange is the New Black*—that are informed in part by the company's extraordinary understanding of its subscribers.

To support these efforts, Netflix leverages Teradata as a critical component of its data and analytics platform. More recently, the two companies partnered to transition Netflix to the Teradata Cloud, which has given Netflix the power and flexibility it needs—and, so, the ability to maintain its focus on those initiatives at the core of its business.

A Model for Data-Driven, Consumer-Focused Business

The Netflix story is a model for data-driven, direct-to-consumer and subscriber-based companies—and, in fact, for any business that needs engaged audiences to thrive in a rapidly changing world.

After beginning as a mail order DVD business, Netflix became the first prominent OTT content provider and turned the media world on its head; witness recent decisions by other major media companies to begin delivering OTT content.

One major element in Netflix's success is the way it relentlessly tweaks its recommendation engines, constantly adapting to meet each consumer's preferred style. Most of the company's streaming activity emerges from its recommendations, which generate enormous consumer engagement and loyalty. Every interaction a Netflix subscriber has with the service is based on meticulously culled and analyzed interactions—no two experiences are the same.

In addition, as noted above, Netflix has applied its understanding of subscribers and potential subscribers—as individuals and as groups—to make strategic purchasing, licensing and content development decisions. It has created two highly successful dramatic series—*House of Cards* and *Orange is the New Black*—that are informed in part by the company's extraordinary understanding of its subscribers.

While those efforts and the business minds that drive them make up the heart of the company's business, the technology that supports these initiatives must be more powerful and reliable than that of its competitors. The data and analytics platform must be able to:

• Rapidly and reliably handle staggering workloads; it must support insightful analysis of billions of transactional events each day—every search, browse, stop and start—in whatever data format that records the events.

TERADATA

- Work with a variety of analytics approaches, including neural networks, Python, Pig, as well as varied Business Intelligence tools, like MicroStrategy.

- Easily scale and contract as necessary with exceptional elasticity.

- Provide a safe and redundant repository for all of the company's data.

- Fit within the company's cost structure and desired profit margins.

Bringing Teradata Analytics to the Cloud

With these considerations in mind, Netflix and Teradata teamed up to launch a successful venture to bring Netflix's Teradata Data Warehouse into the cloud.

Power and Maturity

Teradata's well-earned reputation for exceptional performance is especially important to a company like Netflix, which pounds its analytics platform with hundreds of concurrent queries. Netflix also needed data warehousing and analytics tools that enable complex workload management—essential for creating different queues for different users, and thus allowing for the constant and reliable filtering of what each user needs.

Hybrid Analytical Ecosystems and a Unified Data Architecture

Netflix's reliance on a hybrid analytical ecosystem that leverages Hadoop where appropriate, but refuses to compromise on speed and agility was the perfect fit for Teradata. Netflix's cloud environment relies on a Teradata-Hadoop connector that enables Netflix to seamlessly move cloud-based data from another provider into the Teradata Cloud. The result is that Netflix can do much of its analytics off a world-class data warehouse in the Teradata Cloud that offers peace-of-mind redundancy, the ability to expand and contract in response to changing business conditions and a significantly reduced need for data movement. And, Netflix's no-holds-barred approach to allowing their analysts to use whatever analytical tools fit the bill demanded a unique analytics platform that could accommodate them. Having a partner that works efficiently with the full complement of analytical applications—both its own and other leading software providers—was critical.

TERADATA®

Teradata's Unified Data Architecture (UDA) helps provide this by recognizing that most companies need a safe, cost-effective collection of services, platforms, applications, and tools for smarter data management, processing, and analytics. In turn, organizations can get the most from all their data. The Teradata UDA includes:

- An integrated data warehouse, which enables organizations to access a comprehensive and shared data environment to quickly and reliably operationalize insights throughout an organization.

- A powerful discovery platform offers companies discovery analytics that rapidly unlock insights from all available data using a variety of techniques accessible to mainstream business analysts.

- A data platform (e.g., Hadoop) provides the means to economically gather, store and refine all a company's data and facilitate the type of discovery never before believed possible.

The Proof Is In the Eyeballs

Netflix scrupulously adheres to a few simple and powerful metrics when evaluating the success of its personalization capabilities: eyeballs. Are subscribers watching? Are they watching more? Are they watching more of what interests them?

With engagement always top of mind, it's no surprise that Netflix is among the world's leaders in personalizing content to successfully attract and retain profitable consumers. It has achieved this standing by drawing on its understanding that in a rapidly changing business and technology landscape, one key to success is constantly testing new ways of gathering and analyzing data to deliver the most effective and targeted recommendations. Working with technology partners that make such testing possible frees Netflix to focus on its core business.

Moving ahead, Netflix believes that making increased use of cloud-based technology will further empower its customer engagement initiatives. By relying on technology partners that understand how to tailor solutions and provide peace of mind about the redundancy of Netflix's data, the company expects to continue its organic growth and expand its capacity to respond nimbly to technological change and the inevitable ebbs and flows of business.

To learn more about how Teradata can help your business become data-driven, contact your Teradata representative or visit **http://www.teradata.com/industry-expertise/media-and-entertainment**.

About Teradata

Teradata is the world's largest company focused on analytic data solutions through integrated data warehousing, big data analytics, and business applications. Only Teradata gives organizations the advantage to transform data across the organization into actionable insights empowering leaders to think boldly and act decisively for the best decisions possible. Visit **Teradata.com**.

About Netflix

Netflix is the world's leading Internet television network with over 53 million members in nearly 50 countries enjoying more than two billion hours of TV shows and movies per month, including original series. Members can watch as much as they want, anytime, anywhere, on nearly any Internet-connected screen. Members can play, pause and resume watching, all without commercials or commitments.