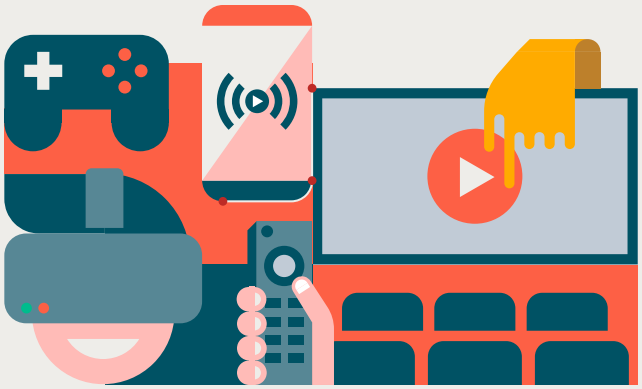
databricks

LAKEHOUSE FOR MEDIA & ENTERTAINMENT

Simplifying Data and AI so Media Brands Can Innovate Faster



Disintermediation, fickle audiences and new competition for attention (and wallet share) are disrupting old business models within the media and entertainment industry. With digital content fueling this transformation, companies that can meet the demands of a real-time, on-demand world and engage customers the way they want will be in position to win.

Leading brands powering innovation with Databricks

COMCAST

Increased audience engagement with a voice-powered experience

SEGA

Delivering real time, 1:1 gamer experiences at scale

SHOWTIME

Reduced churn by understanding how programing and pricing impact each subscriber

Accelerate data-driven innovation with Databricks Lakehouse for Media & Entertainment

Databricks provides a Lakehouse Platform that helps media brands simplify data and AI — accelerating innovation across the entire media value chain.

DATA ENGINEERS

DATA INGEST & PROCESSING

Streaming Data:
- Social
- Location/IP
- Clickstream

Batch Data:
- Viewing History
- CRM
- Marketing
- ...

Build a single view of the audience
Optimized, fully-managed Apache Spark capable of processing all structured and unstructured data

Apache Spark

DATA ENGINEERS

DATA LAKE

Storage, organization and management

Real-time audience insights
Reliably ingest and update stream data in real-time with transactional guarantees and high-performance queries

DELTA LAKE

DATA SCIENTISTS

DATA SCIENCE

Churn Analysis | Personalization | Recommendation Engine

Rapidly innovate the audience experience
Collaborative notebooks integrated with MLflow and popular libraries and streaming machine learning lifecycle

mlflow

DATA ANALYSTS

BUSINESS INTELLIGENCE

Reporting by business unit

Make data-driven business decisions
Leverage your entire data lake, including streaming data, for complete reporting and visualizations across your BI tool of choice

Power BI | redash | tableau

Databricks media and entertainment customers

MediaMath · NBCUniversal · SHOWTIME · tinder · SEGA · COX MEDIA · DOW JONES · Paramount · zynga · sportsbet · McGraw Hill · ellation · CONDÉ NAST · Nielsen · LIVE NATION · tubi

Common use cases in media and entertainment

D2C Analytics and Recommendations

Unlock new opportunities to create personalized, frictionless customer journeys.

- Personalization engine
- Next best action

Advertising Performance and Optimization

Employ predictive analytics to increase advertising performance and targeting.

- Attribution analysis
- Audience targeting

Content Lifecycle

Improve content pricing, crew scheduling, content metadata extraction and more.

- Product development lifecycle
- Content pricing and scheduling

The Databricks Impact

Databricks helps companies automate infrastructure management, increase ETL performance at scale and accelerate machine learning and analytics initiatives.

12x faster
ETL pipelines
Impact: Faster time-to-market for new analytics insights and models

+25%
Gain in productivity
Impact: More productive data scientists result in more AI innovation

+47%
Overall cost savings
Impact: Lower infrastructure costs boost operational margins

Questions? Reach out to info@databricks.com

Learn more about the Databricks Lakehouse for Media & Entertainment.

Creating TV Hits With AI

Showtime leverages ML to deliver data-driven content programming

Today's consumers expect more from their content providers and can quickly tune out if expectations are not met. To ensure engagement and loyalty, Showtime wanted to leverage data to drive content strategy, but they struggled with scaling limitations from legacy systems and inefficient data pipelines. With the Databricks Lakehouse for Media & Entertainment, they now have an actionable view into the consumer journey to inform programming and content with the goal of increasing engagement while lowering churn.

> "Being on the Databricks platform has allowed a team of exclusively data scientists to make huge strides in setting aside all those configuration headaches that we were faced with. It's dramatically improved our productivity."
>
> — Josh McNutt, Senior Vice President of Data Strategy and Consumer Analytics at Showtime

VERTICAL SOLUTION | Customer retention and revenue forecasting

Legacy Systems Slowed Time-to-Market of New Features

The Data Strategy team at Showtime is focused on democratizing data and analytics across the organization. They collect huge volumes of subscriber data (e.g., shows watched, time of day, devices used, subscription history, etc.) and use machine learning to predict subscriber behavior and improve scheduling and programming. Unfortunately, legacy technology architectures were pulling teams away from high-value data science activities.

- **Infrastructure Complexity:** Finding the infrastructure that allowed for flexibility but didn't require constant maintenance.
- **Inefficient Machine Learning Pipelines:** The process to develop, train and deploy machine learning models was highly manual and error-prone, leading to slower time-to-market of new models.

Smarter Content Programming With ML

The Databricks Lakehouse for Media & Entertainment provides Showtime with a fully managed service that has greatly simplified data engineering and improved the productivity of their data science teams. Now they are able to tap into the insights within their rich pool of data to uncover opportunities to drive viewer engagement and reduce churn.

- **Automated Infrastructure:** Fully managed, serverless cloud infrastructure for speed, cost control and elasticity.
- **Interactive Workspace:** Make collaboration easy and seamless across teams and multiple programming languages to accelerate data science productivity.
- **Simplified ML Lifecycle:** MLflow allows them to streamline the entire ML lifecycle.

Faster Data Analytics, Data Science Innovation

Databricks has helped Showtime democratize data and machine learning across the organization, creating a more data-driven culture.

- **6x Faster Pipelines:** Data pipelines that took over 24 hours are now run in less than 4 hours enabling teams to make decisions faster.
- **Removing Infrastructure Complexity:** Fully managed platform in the cloud with automated cluster management allows the data science team to focus on machine learning rather than hardware configurations, provisioning clusters, debugging, etc.
- **Innovating the Subscriber Experience:** Improved data science collaboration and productivity has reduced time-to-market for new models and features. Teams can experiment faster — leading to a better, more personalized experience for subscribers.

Optimizing the Viewing Experience

Paramount improves streaming performance to drive customer loyalty

Paramount has transformed itself into a data-driven enterprise — collecting and analyzing petabytes of network data to increase viewer loyalty and revenue. However, doing so was easier said than done. With scalability and performance issues, particularly during peak viewing times, they turned to Databricks to build reliable ETL pipelines and machine learning models that allowed them to deliver an optimal experience for their streaming content.

> "Databricks lets us focus on business problems and makes certain processes very simple. Now it's a question of how do we bring these benefits to others in the organization who might not be aware of what they can do with this type of platform."
>
> — Dan Morris, Senior Director of Product Analytics at Paramount

VERTICAL SOLUTION | Customer engagement and retention

Subpar Performance During Peak Usage

Paramount struggled with the performance of their streaming video players during high-volume activity. Player malfunctioning couldn't be detected until long after it began. Similarly, there was no way of knowing what videos viewers were currently watching on Viacom properties, critical to ensure a viewing experience that drives engagement and loyalty.

- **Improving User Experience:** Streaming petabytes of video data across the world puts a strain on the delivery systems, resulting in videos failing to load or constantly stuttering as they rebuffer.
- **Growing the Audience:** Making sense from huge troves of viewing data and determining the best actions to drive viewer retention and loyalty.
- **Targeted Advertising:** With TV ad sales falling in recent years, Paramount needed to find better ways to engage with their audience via advertising.

Leveraging Data and ML to Solve Performance Issues

Paramount leverages the Databricks Lakehouse for Media & Entertainment to empower their engineering teams to monitor the quality of video feeds and reallocate resources in real time when needed. They also have access to viewer insights necessary to deliver experiences that engage and retain:

- **Improved Operational Efficiency:** Features such as auto-scaling clusters and support for Delta Lake has improved operations from data ingest to managing the entire machine learning lifecycle.
- **Collaborative Workspaces:** Interactive notebooks improve cross-team collaboration and data science creativity, allowing Paramount to greatly accelerate model prototyping for faster iteration.
- **Automated Workflows:** Targeted customers with personalized ads based on Comscore ratings and viewing behavior.

Delivering Viewing Experiences That Delight Customers

Databricks allows Paramount to improve the performance of their streaming experience and can now provide more targeted and personalized experiences to their viewers:

- **Predict Trends and Issues to Provide Superior Viewing Experience:** Reduced video start delay by 33%.
- **Increase Customer Loyalty:** Leveraged data to identify how to increase customer retention by up to 7x.
- **Improve Ad Conversions:** Targeted customers with personalized ads based on Comscore ratings and viewing behavior.