

Case Study - Liberty Global

The metadata journey to super-aggregation

Seamless integration of Nielsen's Gracenote entertainment metadata underpins Liberty Global's super-aggregator user experience

Executive summary

Aggregating metadata to deliver great customer experiences

Delivering super-aggregation is an imperative for operators like Liberty Global wanting to defend and accelerate their position in the competitive TV and streaming market. This means offering customers a wide range of digital services and video content in one place, making it easier to discover and consume, and maximizing “stickiness” to keep users engaged:

- A unified experience with **user-centric content presentation**, search and discovery, personalization and recommendations, across an increasingly diverse range of content sources underpins the super-aggregation model.
- **Metadata is the lifeblood** of the new TV landscape—drawing from live linear channels, broadcaster catch-up, SVOD streamers, transactional TVOD and premium content, as well as non-video services like music, podcasts and sports data.
- Delivering a joined-up experience for viewers demands consistent metadata that can **identify any piece of content wherever it appears**, across all of the services a viewer can access.
- Updated types of metadata, particularly **engaging imagery**, are needed to deliver a new generation of compelling visually-led user interfaces.
- Rich metadata to drive search and discovery, including the **mood and sentiment** of the content along with the cast and crew, is essential to power recommendations.
- International operators like Liberty Global must handle metadata for **multiple languages and countries**, and a diverse range of local content partners in each market.
- Implementing this seamlessly “in flight” for an existing international operator requires **integration to many existing back-office and consumer-facing systems**—down to maintaining un-disrupted access to tens of thousands of DVR recordings.
- This requires a high level of technical expertise and—crucially—excellent **collaboration and cooperation** between metadata provider and operator.
- The results are measured in terms of **customer satisfaction** and increased time spent by users engaging with Liberty Global’s products.

Successfully integrating Nielsen’s Gracenote metadata solutions with Liberty Global’s Horizon 4 platform is delivering the next chapter in aggregated consumer entertainment across TV, streaming, apps, sports, audio and games. For Liberty Global it is all about delivering the best- possible consumer experience and offering the widest range of entertainment, ensuring consumers always have something they want to watch.

About Liberty Global

Liberty Global is one of Europe's leading pay TV and communications providers, a world leader in converged broadband, video, and mobile communications services.

Its businesses connect 85 million subscribers, operating under some of the best-known consumer brands, including Virgin Media-O2 in the UK, VodafoneZiggo in The Netherlands, Telenet in Belgium, Sunrise UPC in Switzerland, Virgin Media in Ireland and UPC in Eastern Europe.

Liberty Global has created its next-generation entertainment platform Horizon 4, delivering a super-aggregation service to its subscribers and those of partners like T-Mobile in Austria. Consumers benefit from a visually-led experience, voice control, and a focus on putting all of their entertainment in one place.

Gracenote first partnered for metadata with Liberty Global's UK business in 2010, and has gone on to power metadata across Liberty Global's markets, completing the rollout in February 2023.

From cable provider to super-aggregator

As one of Europe's biggest pay TV providers, Liberty Global recognized the importance of transforming from its established position as a linear channel aggregator, to become a leading super-aggregator. The objective: bring together the best range of live and on-demand content and digital services under one roof, united by a compelling user experience.

By making it easier for consumers to discover and view content, Liberty Global aims to maximize the time they spend on its platform, creating an experience that is clearly differentiated from a slew of new competitors—from standalone streaming apps and telco TV services to smart TV platforms.

At the core of this strategy is Liberty Global's Horizon 4 platform, rolled out across its operating businesses, and those of partners, in eight European markets.

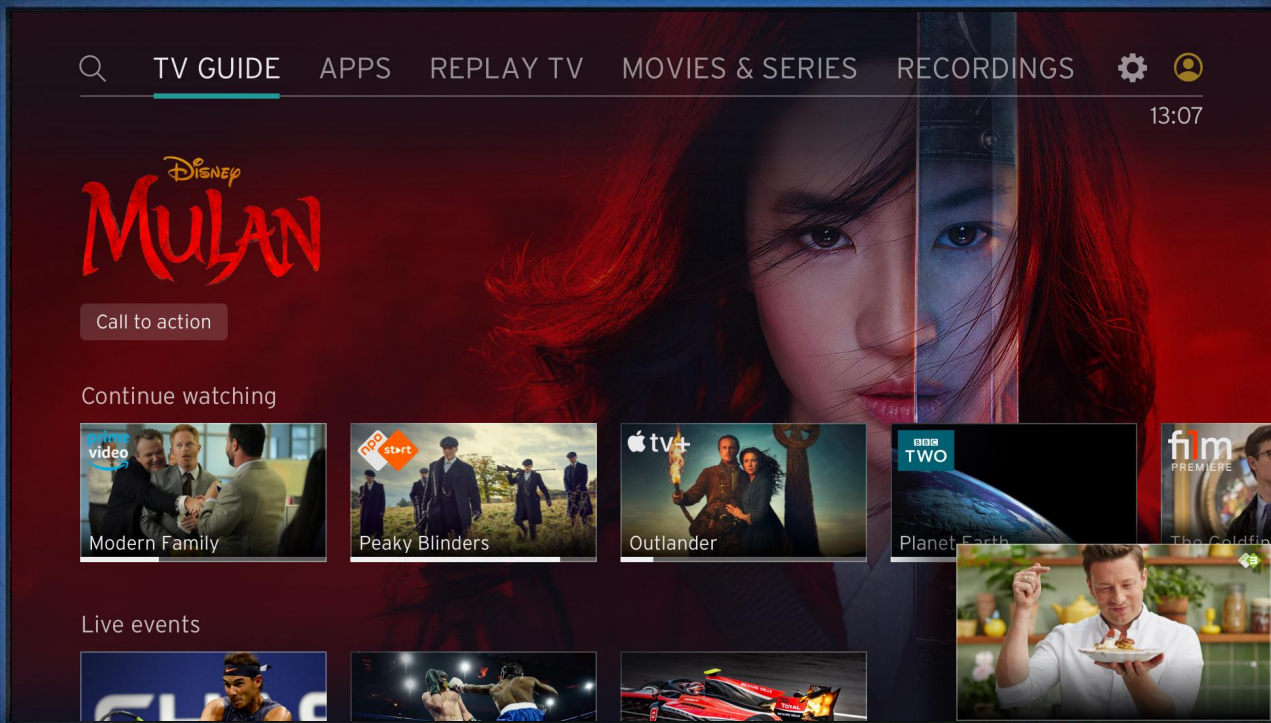
This transforms the viewing experience from zapping through a text-based linear-channel program guide to an immersive, content-led visual experience.

Smashing the content silos

Liberty Global's customers no longer need to know which channel or app a TV show or movie is on before they can watch it, or where to catch-up on something they have missed. And, with effective recommendations and personalization, viewers can be sure of always finding something they want to watch.

A single, unified user interface for all content replaces the need to scroll through separate screens, or open up individual apps, for each source of video.

Whether browsing, searching, using voice control, or through relevant recommendations, Liberty Global's video customers now enjoy an easy-to-use one-stop-shop for all of their entertainment.



“We’ve always been a bundler of content, a one-stop shop, now we’re seeing a proliferation of apps and a shift in customer behavior and viewing.”

Chris van der Linden

Director Entertainment Platforms,
Liberty Global

Enabled by metadata

Liberty Global realized that delivering this experience creates a crucial dependency on metadata. And that meant identifying a metadata provider able to go far beyond traditional TV channel data, able to meet a series of distinct requirements to underpin Horizon 4:

Extremely accurate, high-quality metadata

- Ensuring the best user experience depends on the highest accuracy in the metadata. The slightest mistake, such as with a program start time, could cause unhappy viewers to miss shows.
- Any failing in this area would lead to a direct negative impact on key metrics for customer satisfaction (CSAT and net promoter score).

Tracking all of the sources and services providing any piece of content

- Guiding content discovery, the unique ID also powers Liberty Global's "also available on..." feature, helping viewers access a title based on availability windows and entitlement.
- Driving upgrade and upsell offers, where a customer does not have access to a particular piece of content in their current package.

Engaging descriptive metadata in multiple languages

- Providing high-quality content synopses, keywords, genres, and cast and crew lists, helps users to discover their favorite content through browsing and search.
- Driving Liberty Global's recommendation service to help consumers discover an even wider range of content to watch also depends on these rich data feeds.

Unique ID for each piece of content regardless of its source

- Tying everything together across live linear, broadcaster catch-up, Liberty Global's VOD service and third-party apps, identifying a unique piece of content, regardless of source, and enabling the viewer to find it easily.
- Avoiding duplication in search results and recommendations, eliminating the risk of the same title appearing multiple times if it is available in more than one service.

Compelling artwork in a range of new formats

- Presenting content visually requires more than small poster thumbnails or basic hero images. Liberty Global has pioneered the use of full-screen "key art" images to create a distinctive and immersive experience.
- Offering a broad range of imagery such as headshots of cast and crew adds to the visual presentation of content.

Providing rich additional contextual information about content.

- Unique "video descriptors" add further contextual information about the content to aid discoverability, going far beyond a traditional synopsis, keywords or genre tags.
- These include the mood, theme, location and characters in the content (see next page).

GREY'S ANATOMY

11 Seasons • 2007 • Drama • Romance

The doctors of Grey Sloan Memorial Hospital deal with life-or-death consequences on a daily basis – it's in one another that they find comfort, friendship and, at times, more than friendship. Together they're discovering that neither medicine nor relationships can be defined in black and white.

[ALL EPISODES](#) [WATCHLIST](#)

Available on



Season 2-3



Season 2-6



Season 1

Liberty Global is offering more relevant content discovery and recommendations to its viewers thanks to Gracenote's unique contextual metadata. These dimensions provide:

- The **mood** or tone of the content.
- The **theme** of the work.
- The **scenario** such as the interpersonal relationship of the characters.
- The **concept** or original source inspiring the work.
- The **character** in the content, real or fictional.
- The **setting** including location, time period and occasion.
- The **subject** of the work, the specific topic addressed.



"For an operator like Liberty Global, you can't underestimate the importance of getting it right. And that's very technical, it needs a lot of know-how and a strong roadmap."

Cameron Yung

Gracenote Entertainment,
Nielsen Europe

Streamlining the transition

However crucial metadata is to the super-aggregation user experience, switching to a new provider could be a daunting and challenging project—to the extent that an operator may be tempted to remain with a less-capable legacy supplier.

But Liberty Global and Gracenote proved this transition can be delivered successfully despite the scale of the project across multiple markets. Starting in Ireland in 2018 continuing through the pandemic and then completed with Belgium in February 2023.

This successful project required close collaboration, and an agile response by Gracenote to Liberty Global's specific, and often complex, requirements:

- Gracenote managed Liberty Global's major custom request—adding support for the **TV-Anytime EPG data protocol**, enabling Liberty Global to roll out the new metadata service without needing to make complex and expensive changes to back end systems.
- Gracenote delivered support for all Liberty Global's European markets, including **working with local broadcasters and content providers** in each country. This is more complex than it first appears: for example, broadcasters have varied approaches for handling recurring programs like news and serial dramas (soaps), or for referencing two halves of a soccer match. All needed to be resolved to ensure that DVR recordings would work seamlessly.
- The new metadata structure and **content UIDs had to be linked to legacy IDs**—ensuring no Liberty Global customers lost access to their existing DVR recordings.
- Providing **multilingual support**, between and within markets, with content, user interface and metadata language combinations ensuring a consistent and logical user experience. This is also more complex than it first appears, for example when a French-language program is presented to a German-speaking viewer in Switzerland.

“The multi-language requirements we have were a bit of a challenge, but it was simply resolved.”

Patrick Heijma
Video Systems Engineer,
Liberty Global

Made possible by people

Liberty Global's successful integration of Gracenote metadata solutions depended on far more than excellent technology and the high quality of the metadata. Above all, it was driven by the effective working relationship between the people delivering the project.

From the start, the Gracenote and Liberty Global teams worked closely together, with time invested up-front building a trusted relationship. This paid dividends when the inevitable unexpected issues of a large project needed to be solved quickly and pragmatically.

A strong team spirit and collaborative approach worked with both Liberty Global's headquarters team and, later, with each country's operating business during rollout.

“It's been a really positive experience. Gracenote was really dedicated with a real eye for the details. Not just following along, but also challenging us and bringing in new thinking.”

Bei Li
Senior Manager CMS & Metadata Product Development,
Liberty Global

Measuring results, improving customer satisfaction

Liberty Global is tracking the success of its metadata project across three dimensions:

- 1. Metadata quality.** While customers rarely compliment the operator for doing it right, they will certainly loudly complain if data is wrong—for instance if they miss the start of a soccer game or skip an episode within a series.
- 2. Customer feedback metrics.** Liberty Global recognizes that its metadata is now one of the key drivers of key metrics like net promoter score (NPS) and customer satisfaction (CSAT). On a continuous basis, the operator is tracking customers' perception and satisfaction with their services, and recognizes the value of high-quality, accurate metadata in enabling better user experiences.
- 3. Product development.** On a practical level, the operator continually monitors the way the Horizon 4 platform is working, in particular the visual aspects of the user interface that are driven by the Gracenote metadata.

“If we’re offering a rich platform that’s helping customers to consume more, to spend more time with our video platforms, that’s also a proxy for how successful we are in our aggregation.”

Chris van der Linden

Director Entertainment Platforms,
Liberty Global

The future for Liberty Global’s content and metadata

Liberty Global’s Director of Entertainment Platforms, Chris van der Linden, explains...

“The definition of entertainment is broadening. Our biggest concern is obviously a customer picking up the remote, the TV remote and going away from our service. So you need to be able to be all-encompassing, uncovering whatever entertainment customer might be interested in.

“If you serve that well, that creates stickiness, and the customers will kind of keep on coming back to the platform.

“Nowadays, it’s easy for a customer to watch a particular service, like Netflix, or Amazon or whatever else through their smart TV—or through our box. So the value-add comes from aggregation, and finding out what to watch next.”

For Liberty Global this means metadata going far beyond video to include:

- **Sports** data including real-time match stats, and helping viewers watch game highlights.
- **Audio** services include podcasts and music streaming.
- **Games** are an increasing part of the mix in many markets.
- **Smart home** services add additional value to customers of a super-aggregator.

Ready for the future

The end result of Liberty Global's successful partnership with Gracenote is a robust metadata solution that not only underpins the operator's transition to become a super-aggregator with its game-changing Horizon 4 product, but was delivered seamlessly without disrupting business-as-usual. And in a fast-changing market, the Gracenote solution also enables Liberty Global to respond quickly to new requirements, product developments and content types by being:



Scalable. It is now easy for Liberty Global's operating businesses to onboard a new content provider or channel via a single standard API, without needing complex engineering each time. This is crucial in an industry where rapid time-to-market creates a huge competitive advantage.



Flexible. Gracenote's ability to import a huge range of different formats from content suppliers, even a PDF document, means local channel providers aren't forced to adapt to a particular format. This helps Liberty Global maintain strong commercial relationships with its content partners.



Consistent. A highly-consistent approach, regardless of the type of content or source, while still allowing for local-market flexibility.

At the center of Liberty Global's strategy is its 85 million customers, and the operator is continually evolving its products to meet their needs.

"We need to be where the customers' eyeballs want to be," is the mantra of Liberty Global's entertainment platform teams.

Aggregating an ever-richer array of content and digital services, and making these easier than ever to discover and consume is now at the heart of all successful operators' strategies. Liberty Global's experience of working with Nielsen's Gracenote content solutions demonstrates that high-quality, accurate metadata—descriptive text, structured tagging, definitive IDs, and immersive images—is a critical success factor.

About Nielsen

Nielsen shapes the world's media and content as a global leader in audience measurement, data and analytics. Through our understanding of people and their behaviors across all channels and platforms, we empower our clients with independent and actionable intelligence so they can connect and engage with their audiences—now and into the future. Nielsen operates around the world in more than 55 countries.

Gracenote, Nielsen's content solutions business, provides music, video and sports content and technologies to the world's leading entertainment products and brands. The Gracenote content offering is the standard for music and video recognition and is supported by the largest source of entertainment data, featuring descriptions of more than 100 million tracks, TV listings for 85+ countries and statistics spanning more than 70 sports and 300,000 competitions per year.

Learn more at

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and connect with us on social media.