

# Using Data to Drive Profit

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Top 10 Keys for Using Data  
Analytics in the Media and  
Entertainment Industry

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# introduction

Recent examples reveal the power—indeed the magic—of modern data analytics, including the stories of how the iconic Netflix series *House of Cards* came into being and how AMC Networks continues to innovate and deliver exactly the kind of programming audiences want.

By almost any measure, the *House of Cards* series has been extremely successful. But what's most remarkable is how the series was developed and introduced. As the star and executive producer Kevin Spacey explained in a speech at the Edinburgh International Television Festival, "Netflix was the only network that said, 'We believe in you . . . we've run our data and it tells us the audience would watch this series.'" (Watch the video [here](#).)

Netflix was able to circumvent the traditional (and very expensive) "pilot" TV test process because they had in-depth knowledge about Netflix viewers. Based on advanced analytics, Netflix invested \$100 million, up front, in *House of Cards* and decided to green-light the show for at least four seasons (through 2016).

Similarly, AMC Networks has used advanced analytics to gain a richer picture of whom their viewers are and what they want in order to understand how to keep their attention in an increasingly crowded entertainment marketplace. "We need to know who's watching and why," says Vitaly Tsivin, SVP of Business Intelligence at AMC Networks, "and we need to know it quickly so that we can decide . . . whether to run an ad or a promo in a particular slot during tomorrow night's episode of *Mad Men*."

The published [AMC Networks analytics](#) case study describes the challenge of having so much information available—hundreds of billions of rows of data from industry data providers such as Nielsen and comScore, from channels such as AMC's TV Everywhere live Web streaming and video on demand service, from retail partners such as iTunes and Amazon, and from third-party online video services such as Netflix and Hulu—and the need to analyze all of this data minute-by-minute and viewer-by-viewer.

These examples from Netflix and AMC Networks illustrate just two of the ways advanced analytics can provide extremely valuable insight into today's media viewers. Following are the top 10 best practices for successfully implementing data analytics to understand audiences and to drive profit, attract new viewers, and increase viewer loyalty in the media and entertainment (M&E) industry.

## About the Author

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Jimmy Schaeffler is a 43-year veteran of the TV business, having begun his career with ABC Sports during the 1972 Munich Olympics, and later working as an account executive, producer, and attorney with ABC, IMG, the U.S. Olympic Committee, and Paul Kagan. As head of the globally-respected consultancy, The Carmel Group, since 1995, Mr. Schaeffler has written numerous books and research studies analyzing trends, strategies, developments, and competition within the broadcast, pay TV, and broadband/streaming/Over-the-Top (OTT) industries. This IBM/B&C white paper about the critical nature of data analytics within today's video space is yet another example of his passion to positively change the world's video business on behalf of viewers and businesses, around the world, for decades to come.

## Lesson #1: Know Your Goals

As an M&E professional interested in audience analysis, your first step should be to decide what your goals are and how you'll achieve them.

Common analytics goals for M&E companies include:

- Create better and more relevant content to gain audience share
- Gain deeper insights and improve viewer loyalty
- Improve campaign results
- Boost the value of your content
- Increase advertising revenues
- Gain prediction capabilities using your data
- Achieve better profiling and segmentation of your audience
- Integrate real-time social data into your analysis
- Build a better base from which to negotiate deals
- Increase the pace of your data collection processes
- Bring ad hoc reporting resources to your internal customers

Once you have determined your critical objectives, you can begin formulating your strategies. In order to do that, you need to answer some important questions about your action plan:

- Are you going to reach out and see which analytics provider can quickly accomplish your mission?
- Will you want to invest heavily in building your own data analytics system?
- Or will you hire or buy an outside analytics service?

Any scenario can be successful as long as you remain centered on your overarching goals. Make sure you're addressing your key questions along the way and recognize that technology is a tool to get to actionable business decisions—not an objective in and of itself. And be sure to take an honest look at your own organization to determine not only your true business drivers, but also any pitfalls and concerns. In addition, even at this early stage you'll need to understand who your end user is.

## Lesson #2: Know Your Viewer

M&E audience measurement has undergone a radical change over the past few years; that change is a digital transformation, and the opportunities to gain competitive differentiation come now through data analytics.

A decade ago, standard viewer measurement methods mostly tracked limited pools of viewers, without a direct connection to any single viewer. The leading viewer analytics programs today track each viewer's gender, age, profession, family size, and location, as well as his or her real-time behavior. Viewing, spending, and social media use, for example, are all followed and analyzed.

These data provide a deep level of insight and new opportunities. Imagine you're walking through your local downtown area and it starts to rain. Just as

### Data Gem #1:

"Digital consumer spending will overtake traditional consumer spending in 2015 and will be 26 percent larger by 2018." (McKinsey & Company, "Global Media Report 2014")

### Data Gem #2:

In 2015, mobile ad spending in the US will account for 49% of all digital ad spending, and 72% by 2019.

you're about to complain about getting wet, your mobile device alerts you with a pop-up ad featuring a green umbrella—telling you there's a sale on rain gear happening now at the store right across the street from where you're standing. The company knows it's raining, knows your location, and knows your favorite color! This is the type of real-time, personalized use of analytics that provides real value, both to the company and to the consumer.

It's the ultimate customer relationship, when applied in an appropriate noninvasive manner that can enable media companies to supply every viewer perfect content. In a true B2C fashion, the best data analytics solutions make it possible to deliver not just relevant ads, but also shows, movies, and publications that are personalized for each individual consumer.

## Lesson #3: Give the Viewing Audience a Sense of Command and Control

One of the global marketplace's greatest truisms is that consumers welcome choice. And sophisticated data analytics systems today actually give viewers more choice. By honoring their preferences, media providers give their viewers and other end users greater control over the products and services they consume. By doing so, media providers also create new revenue streams

AMC's post-show viewer experience for *The Walking Dead*, called "Talking Dead," delivers viewer opinions to the show's producers. The thoughts of these viewers are then analyzed to derive key insights for character development, the show's direction, and thousands of other episode predictions and directional messages. Great data analytics systems, by employing the unique support of the individual viewer, also achieve the goal of better connecting with consumers. One of the typical underlying goals of data analytics is to enhance the viewing experience by providing more relevant, engaging, and enjoyable content—in the form of shows and movies as well as advertisements and even scroll data.

Measurement of what device someone is using and when, how they are viewing, and what content they are consuming, is greatly enhanced if the viewer opts in to allow measurement of where he or she is viewing. This information drives the delivery of the perfect advertisement—one that not only attracts the customer in a positive way but that also sells the product. Location and other measurements can also be important because typical consumer consumption behavior changes daily, if not hourly. In short, two-way interactivity via data analytics collection gives viewers a voice. It also delivers a greater stake in the content property they consume.

Within the gaming industry, measuring player progress often avoids fatigue and frustration. By using that near-real-time data, game developers can offer up different, often less difficult, game paths. These subtle gamer "choices and controls" result in better outcomes for struggling players who decide to stay with a game instead of bailing out. The gaming companies also obtain better results for further engagement and/or for up-selling the player. David Darden, BI Engineering Manager for Big Fish Games, puts it this way: "For the first time, we have insight into whether customers are playing as we expect them to. In other words, we now know where they get stuck, where they continue to play, and which features make them most likely to play multiple times a day. Ultimately, this means that we can fine-tune existing games or new releases to ensure that we offer players more of what they really want" ([see link](#)).

### Data Gem #3:

According to the Entertainment Software Rating Board, the average US video gamer is 34 years old; 49% of gamers are 18–49 years of age; 67% of all US households play video games; and 40% of all gamers are female.

Finally, whether it's for gaming, ads, TV shows, or movies, data analytics is getting closer to being able to measure another critical aspect of consumer behavior: empowering consumers to convey their emotions as they are viewing or interacting with entertainment media. If measured correctly, viewer emotions are one of the best predictions of future behavior. Emotions play a significant role in consumer selection and ordering of content and also in their favorable response to advertisements and other offers.

## Lesson #4: Use Data Analytics to Cross-Sell and Up-Sell Audiences

Modern data analytics can be leveraged to create one-of-a-kind marketing strategies tied to both the cross-selling and the up-selling of products and services. There are a number of ways to improve a segment of a business that is in decline or a program that is struggling to gain audience.

One large television network, for example, used a powerful analytics platform to compare two very similar shows and their respective audience profiles. One show had a loyal following and was consistently successful; the other had experienced several months' worth of declining ratings. Data from Nielsen were combined with insights from social media to derive audience demographic information as well as data about behavior, emotion, and sentiment. They discovered that viewers from a

particular demographic and in a specific age range were watching one show but not the other. This data helped the network to create a cross-selling campaign for the less successful show to target this missing audience segment. The result was a marked increase in the viewership and ratings for the declining show.

Another example comes from a large M&E company that has many divisions and spans a great number of M&E subsectors. This company also wanted to create cross-selling campaigns that leveraged insights from social profiling and segmentation. They achieved success when, for instance, viewers who watched its movies were cross-sold special offers for the company's theme parks and premium goods.

## Lesson #5: Take Ownership of Your Data

One of the reasons companies such as Google, Apple, Facebook, Amazon, and Yahoo! have become successful is because they have mastered many of the key elements of data analytics. Indeed, they have lit and carried the torch that proclaims: "Data is the new currency."

### Data Gem #4:

According to eMarketer, the US digital ad spend will approach \$60 billion in 2015.

### Data Gem #5:

According to 2015 data from Ericsson, half of consumers watching linear TV say they can't find anything to watch at least once a day. As many as 62% of consumers aged 25–34 face this challenge on a daily basis. Consumers feel that recommendation features are simply not smart or personal enough.

Elsewhere in the M&E industry, however, a movie studio or TV production company will all too often sign a deal with a data management company that leaves that studio or production company with limited access to its own data.

A healthy alternative is to enter into arrangements with data management companies that provide strong access not only to your own data but also to other, third-party, data. These multiple data sources can then be integrated into your own data management platform (DMP).

AMC Networks' Tsivin puts it this way: "You need to take ownership of your data, and use it to get a richer picture of who your viewers are, what they want, and how you can keep their attention in an increasingly crowded entertainment marketplace" ([see the case study](#)).

Industry recommendations for these DMPs include merging all structured and unstructured data into a single platform. Data sources can include everything from weather, GPS locations, social media and online activity, spending, CRM information, mobile data sources (among many others).

It's also important to keep these guidelines in mind:

- Make sure you understand the data's lineage (or the steps toward the creation and delivery of that data).
- Know the quality and reliability of that data.
- Understand at least some key data terms and technologies.

In addition, it's worth repeating: Make sure that your business and IT goals are aligned.

Finally, within a single company, recognize that the information gleaned from data analytics, as well as the various uses for that data, belong to the entire company. It's important, for example, to ensure that your data does not become the sole domain of your company's marketing department.

## Lesson #6: Deploy Data Collection Across Multiple Media and Devices (Especially Social Media)

Data collection and analysis beyond the living room TV set have become increasingly critical because 21st-century life and technology have added many more layers to the viewer study model. Visibility into multiple devices, in multiple places, together with data from social media, makes it possible to gain unprecedented understanding of viewer actions. Even better, the data-weaving technology that develops and analyzes those patterns is constantly improving.

Through sophisticated data analytics, near-real-time information on social media such as Twitter, Instagram, Snapchat, and Facebook can be integrated. Newcomers to the data analytics space are often surprised by how much data analytics companies can glean about an individual simply by analyzing his or her social activity.

For example, if a person tweets that he is picking up his child from daycare, he is likely a parent. If a

### Data Gem #6:

According to Twitter, 85% of active users tweet during primetime about TV; 72% tweet during live shows; 60% tweet about shows when not watching TV; 58% tweet while watching time-shifted TV; and 90% took action in response to a tweet about TV by later watching a TV show.



Twitter user mentions a traffic jam on the way to work, we can assume she is employed. The list of possibilities goes on and on. Indeed, this data is alive and changing constantly. If analyzed effectively with other data sources, this data can be the key to predicting future behavior.

Knowing that a particular viewer prefers a certain kind of content on a given device, during a given time period, can also help companies suggest which specific content to recommend. That targeted suggestion increases the likelihood that the viewer will select that content, meaning a usage fee gets charged and/or a set of advertisements is viewed.

## Lesson #7: Realize the Vastness and Potential of Today's Analytics

The Internet and cloud computing make it possible to gather a staggering amount of data. In fact, it's not about whether data can be found. Rather, it's more likely that there's more than enough data—and that you don't have the proper tools, talent, and technology in place to sufficiently manage and mesh your in-house data with other relevant third-party

data. That combination is what creates today's best-of-breed data analytics.

Take a company like AMC Networks, for instance. AMC has measured and mastered both its in-house and third-party data analytics. The natural result is more power and control—both for AMC and for its customers. With advanced analytics in place, AMC can now understand how customers consume content across all platforms, and they have far better insight into what drives viewers from the living room to mobile video, or to a Web site. That knowledge is virtually priceless.

## Lesson #8: Do Not Rely Only on Traditional Measurement Products and Services

A TV measurement company like Nielsen, which has been in business since 1923, has remarkable assets when it comes to decades of experience in measuring basic TV ratings and shares. Yet, as K.C. Leung, a senior manager at Hong Kong's TVB notes, "While traditional TV ratings research will continue to be important, it must be augmented by social media intelligence."

Many layers of data augmentation exist today. These range from the collection of locations and types of devices to times of day and types of content. Data that comes from census and weather sources, as well

### Data Gem #7:

The shared data repository created by AMC integrates up to 40 audience and viewing sources. Organizational insights gained have led to better ad sales, research efficiencies, and less spending on third-party data and tools.

### Data Gem #8:

According to Gartner, 20% of TV ad dollars will be spent via programmatic TV products by 2018.

as detailed consumer spending information, can be layered as well.

“Originally, it was always the spreadsheet shuffle, where we take the forecast planning that was all spread out in different systems,” explains Dave Higgins, Senior Business Systems Developer at Lucasfilm. “[IBM’s] TM1 allowed us to incorporate everything into a single system, where we could pull in actuals and the forecast, all together, and get a complete solution” ([see the case study](#)).

Moving content onto, and collecting data from, additional devices in new places is another new and unique opportunity. What M&E professional won’t welcome important new cross-selling and up-selling venues, as well as many additional revenue streams?

David Hogben, VP, Business Intelligence and Analytics, for publisher John Wiley & Sons, does a good job of summarizing this lesson. He says, “Analytics has been game-changing for us. It’s definitely improved significantly the timeliness of the actual delivery of the information to the business users, the stability, and it’s actually improved our development. Senior management within Wiley is actually quite intrigued, saying maybe this [advanced analytics] is a better way than making gut decisions. And, by changing this behavior, they saved \$8 to 9 million.” ([See the video](#).)

## Lesson #9: Work with the Best Industry Partners

Following are some of the key tools and terms to-day’s best-of-breed data analytics solutions are built using and you’ll hear about as you investigate how data analytics can benefit your company:’

- **Extract, translate, load (ETL):** ETL pulls content from one database, makes modifications, and places that data in another database.
- **Enterprise data warehouse (EDW):** This is a centralized data store used for corporate-wide reporting and analysis.
- **Unstructured data:** Information that’s not organized in a predefined way, such as tweets, videos, blogs, and device logs.
- **Predictive analysis:** This is a method for gleaning information from data sets, finding patterns of behavior, and predicting potential future decisions.
- **Prescriptive analytics** automatically synthesizes data predictions and then suggests decision options to take advantage of the predictions.

### Data Gem #9:

According to Magna, US advertising revenues should amount to \$172 billion this year. In 2014, ad revenues from all global media suppliers came in at \$521.6 billion, and the 2015 figure is forecast to amount to \$536 billion.



- **Cognitive computing** involves self-learning systems that use data mining, pattern recognition, and natural language processing to mimic the way the human brain works.
- **Reporting:** Reporting for business intelligence provides reports, visualization dashboards, and so on.

Integration between these tools can bring measurable magic to the process. Key M&E data analytics stakeholders include four key participants: clients; data analytics vendors (i.e., technology companies); data providers (from Nielsen on the traditional TV side to Twitter on the all-important social media side); and research companies.

There are many more important players and relationships, including weather data providers and providers of program guide and viewer recommendation interfaces.

Note that while data scientists are key to the process of understanding the data, the tools you use must ensure that the data analysis is accessible to everyone.

## Lesson #10: Build or Buy?

The decision about whether to build or to buy your advanced analytics capability depends on your goals and strategies. Many companies choose a hybrid model.

### Data Gem #10:

“Mobile digital media time in the US is now significantly higher at 51% compared to desktop (42%).”

Because most new M&E data analytics users are not already IT-centric businesses, they must understand what it means to keep a big data and analytics solution installed and running. Intensive in-house data analysis gives you ultimate control of your data, which can have significant benefits, but it can be expensive and overwhelming for some companies due to the number of personnel and data sources available.

Outsourcing your data analytics needs to third-party data providers, or to a specialized consulting firm, presents additional options. Today, these companies promise strict security around any and all data provided to them for analysis. However, there may be a day when some data becomes shared as a mutually beneficial service to multiple clients.

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## conclusion

All signs point to a future where House of Cards-like data analytics models will predict audience reactions in a way that's interactive and proactive, having collected data across multiple media channels. The key as an M&E stakeholder is to set your specific audience data gathering goals and then to select an analytics solution that meets the core criteria required and that can expand as your needs grow in today's rapidly changing media and entertainment marketplace.

These lessons and methods are the key to the magic that will dominate tomorrow's media and entertainment industry.

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# IBM's M&E Data Analytics Perspective

## Why choose IBM?

**Team:** It's the people who make products and services great. IBM's history of working to improve the media and entertainment industry goes back a long way, and IBM's core M&E team has been serving the industry for many years. Additionally, the team has more than just the necessary sales and marketing team members. The team includes product and service engineers that can integrate and merge both the IT and the all-important business decision-making.

**Experience:** IBM's team has engaged in over 50,000 advanced analytics projects over the years and has developed unparalleled expertise in all areas of data management, analytics, and business insights.

**Innovation:** New ideas, combined with a healthy perspective, robust knowledge, and unique experience drive IBM and its clients not just to introduce new ideas, but also to take those robust ideas to the next level of implementation. Throughout its history, IBM has focused on this core business concept.

**Cognitive Computing:** A great example of IBM innovation was the IBM Challenge, in 2011, when the IBM Watson supercomputer defeated the best of the game show Jeopardy's contestants. Watson was so successful because it utilized IBM's innovative and uniquely engineered natural language capabilities. [Learn about becoming a cognitive business here.](#)

## M&E Turns to Data Analytics

More and more sectors of the media and entertainment industry are reaping the benefits of data analytics, including:

- Broadcasters
- Cable Providers
- Satellite TV Providers
- OTT/Broadband/Streaming
- Entities
- Film Studios
- Content Producers
- Publishers
- Marketing Service Providers
- Programmers
- Sports Teams
- Developers
- Gaming Providers
- Theme Parks
- Ad Agencies
- Public Relations Agencies