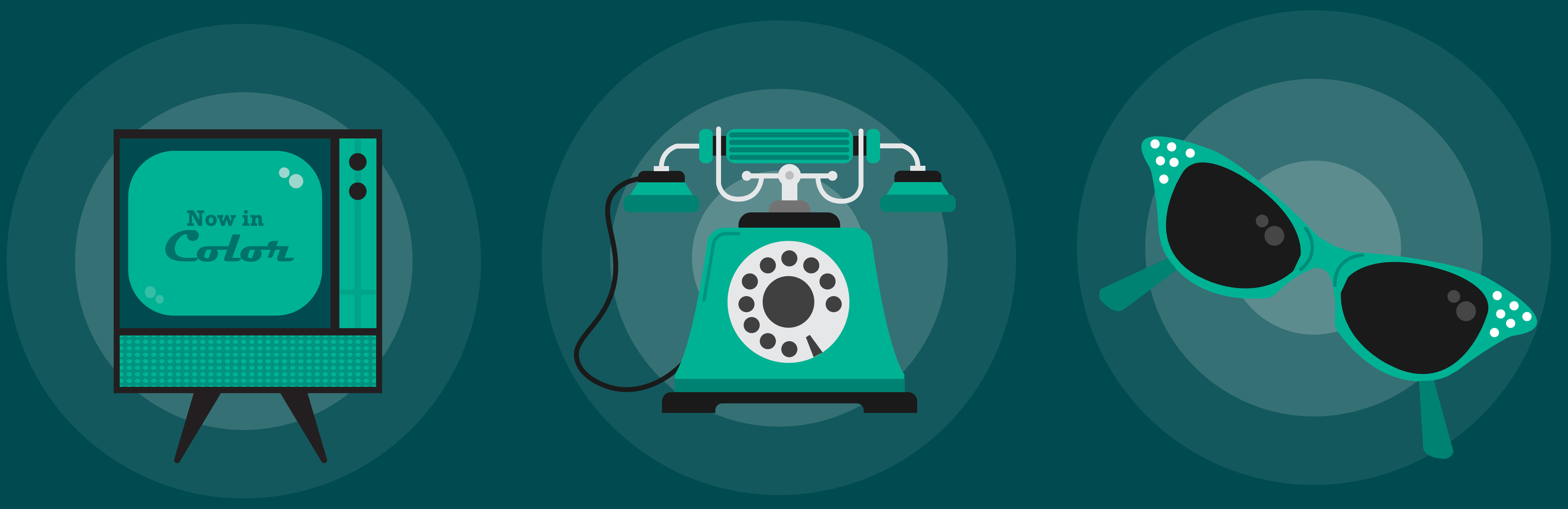
ADVANCED ANALYTICS

RETAIL ANALYTICS: PAST, PRESENT, & FUTURE

Business intelligence and analytics disciplines are rapidly evolving, shifting from looking at historical data to understanding what happened, and capturing real-time data to understand why it happened to using predictive analytics to understand what will happen. Retailers embracing advanced analytics create new insights, new business models, and new ways of staying ahead of competition.

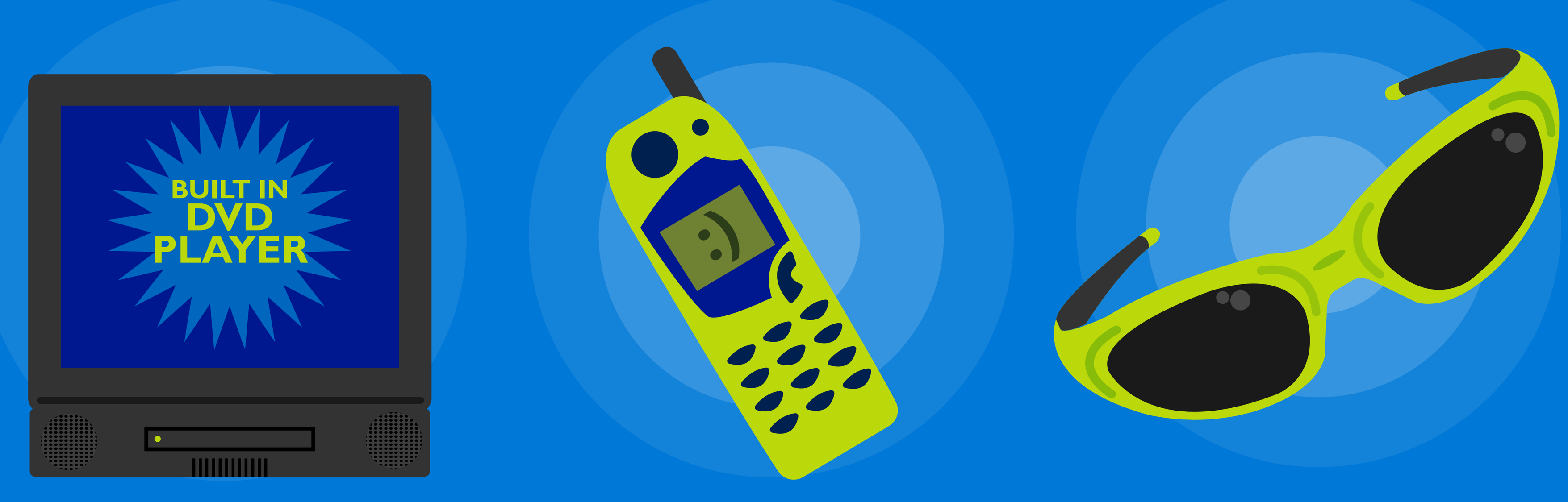


HINDSIGHT

THE 1950s

In the 1950s, business analytics emerged when computers were able to process large quantities of information and identify business trends faster than the human mind. The focus of early business analytics was to gather historical information and identify trends.

Analytics enable retailers to look at historical data to gain insight and drive business planning.



INSIGHT

THE MID-2000s

In the mid-2000s, as Internet-based and social network companies began to amass and analyze new kinds of information, the term, *big data*, was coined to recognize the large amount of data that was being generated by internal transaction systems and external sources.

While the data keeps growing exponentially, retailers who are able to access both historical data and real-time data from a variety of sources and analyze it in a meaningful way can transform information into business insight.

The ongoing explosion of data comes from a variety of sources, including public data, or openly available records; purchased data, or secondary research done by a third-party; and proprietary data.

This data is divided into three categories:

STRUCTURED DATA

Data that resides in a fixed field within a record or file, such as data from a loyalty program.

UNSTRUCTURED DATA

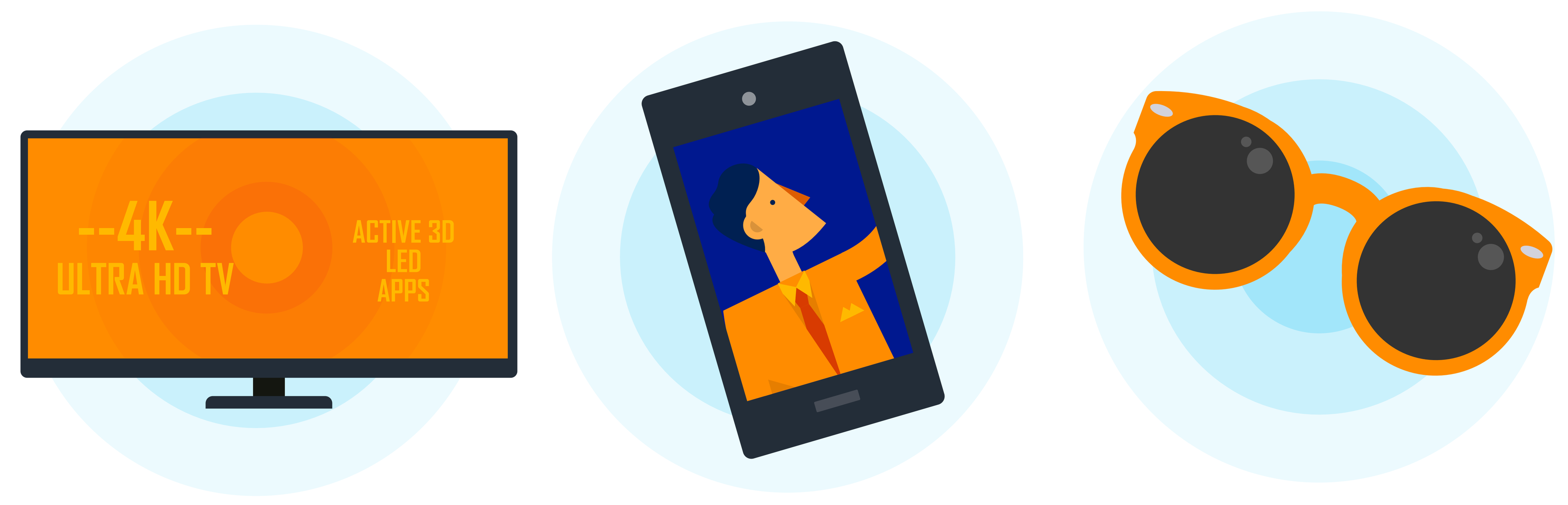
Information that doesn't reside in a traditional row-column database and are disorganized by design. This includes customer reviews or social media posts.

SEMI-STRUCTURED DATA

Data that lies between structured and unstructured, such as in-store monitoring of customer behavior.

90% **of big data has been created in the past two years.[1]**

40 ZB **It is expected that by 2020 the amount of digital information in existence will have grown to 40 zettabyes.[2]**



FORESIGHT

2016 AND BEYOND

In 2016, retailers are using advanced analytics to take advantage of the abundance of data to deliver data-enriched offerings to their consumers. Advanced analytics combine predictive analytics, (what might happen to data) and prescriptive analytics (what should happen and the best ways to optimize results). This enables retailers to better understand how to sell more of a product, predict what a customer wants, ensure the right level of inventory and assortment is available, and create a more personalized and seamless experience, no matter where the customer shops.

By connecting real-time data with business decision makers, retailers are able to provide personalized customer experiences and improve demand forecasting.

Today's advanced analytics technologies enable retailers to develop models on an ongoing and iterative basis to test presumptions about potential business outcomes, and optimize demand forecasting. And as consumers do more research in multiple channels—in-store, online, and on their mobile—advanced analytics help retailers to support a more unified commerce customer experience, so they can offer the right product to a customer where, when, and how they desire. Retailers who adopt advanced analytics will have a competitive advantage.

Pier 1 used personalization to increase sales across **1,100 stores**.

Rockwell Automation **saved $300,000 a day** by eliminating asset down-time.

Ziosk increased sales with customer personalization across **150,000 tables, serving 50 million guests per month**.

Companies that have incorporated data and analytics into their operations show productivity rates 5 to 6 percent higher than those of their peers.[3]

By 2020, at least a third of all data will pass through the cloud – tying advanced analytics and the cloud together.[4]

Find out how Advanced Analytics helps retailers build a stronger customer experience. Download the free eBook.

Microsoft

[1] "Big Data, for better or worse: 90% of world's data generated over last two years." ScienceDaily, May 22, 2013.
[2] "6 powerful facts about Big Data." ETCio.com, July 18, 2014.
[3] "Big Data & Advanced analytics: Success stories from the front lines." McKinsey & Company.
[4] "Surprising Statistics About Big Data." Baseline. February, 2014.