



# THE FUTURE OF MEDIA AND RETAIL MEASUREMENT

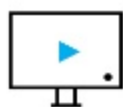
How Nielsen Evolved into an AI-First Company

Mainak Mazumdar  
Nielsen, Chief Research Officer

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# MEASURING WATCH & BUY

## TOTAL AUDIENCE



Video  
Ratings



Audio  
Ratings



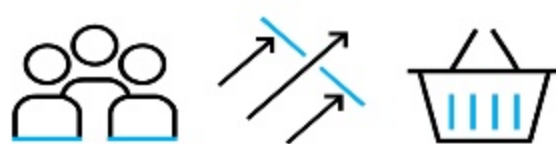
Text  
Ratings

### Content and Ads Ratings for:

- Who is watching (demo, target)
- What (Sports, news)
- Where (in/out of home, devices)
- When (time of day)
- How much/ many (frequency, reach)

**Measurement in 59 countries**

## TOTAL CONSUMER



### Retail sales measurement, advanced analytical capabilities:

- Market share
- Price, volumes
- Loyalty
- Analytics (pricing, promotion, assortment)

**Measurement in 100+ countries**

# LONG-TERM, BEST-IN-CLASS CLIENT BASE

**20,000+  
CLIENTS**

FOR MORE THAN 90 YEARS, WE HAVE BEEN AT THE FOREFRONT OF MEASURING CONSUMERS AROUND THE WORLD, HELPING CLIENTS DRIVE BETTER BUSINESS DECISIONS AND PROFITABLE GROWTH OVER TIME

## BUY

**MARS**  
Incorporated

Nestlé

P&G

Walmart

**RECKITT  
BENCKISER**

SAFeway

Kroger

BRITISH AMERICAN  
TOBACCO

联华超市股份有限公司  
LIANHUA SUPERMARKET HOLDINGS CO., LTD.

**KRAFT**

EL

OXO

Johnson & Johnson

Unilever

value  
vanguard

Carrefour

## WATCH

Google

TIME WARNER

Telefonica

CBS

Comcast

verizon

V ACOM

IPG

NBC UNIVERSAL

sina

FOX

T Mobile

Y!

at&t

Disney

Discovery  
CHANNEL

## PARTNERSHIPS



Experian

Charter

dish

Roku

JD.COM





when not collected electronically

# AI-FIRST STRATEGY



Cloud, Open Source, Mobile



>> Digitization of Data  
Collection >> Data Enrichment  
>> Delivery



Prioritize Nielsen labeled data  
advantage



Solve business processes and  
client need with AI



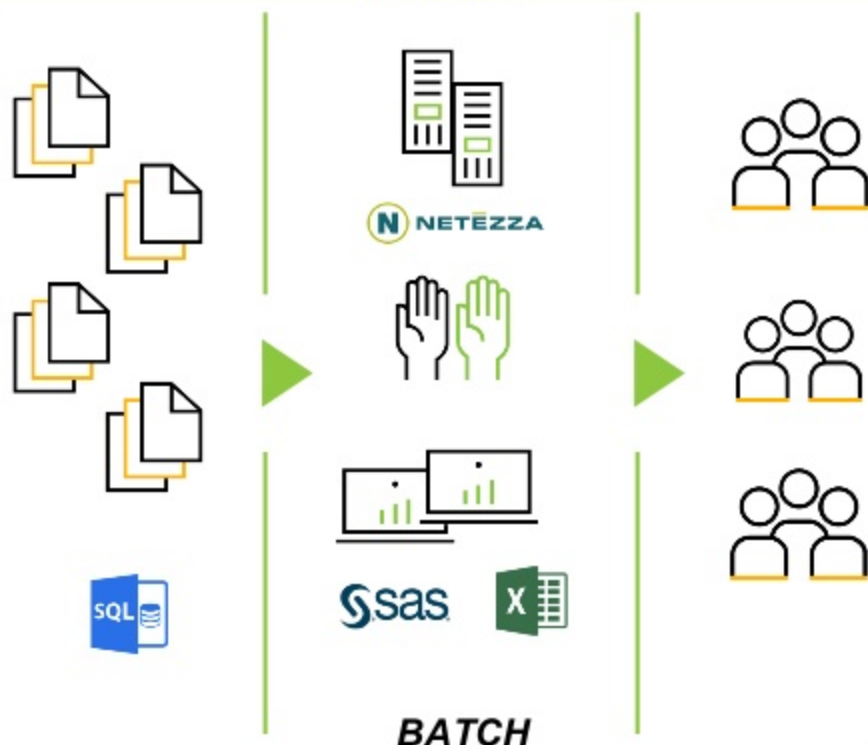


# DATA SCIENCE TRANSFORMATION

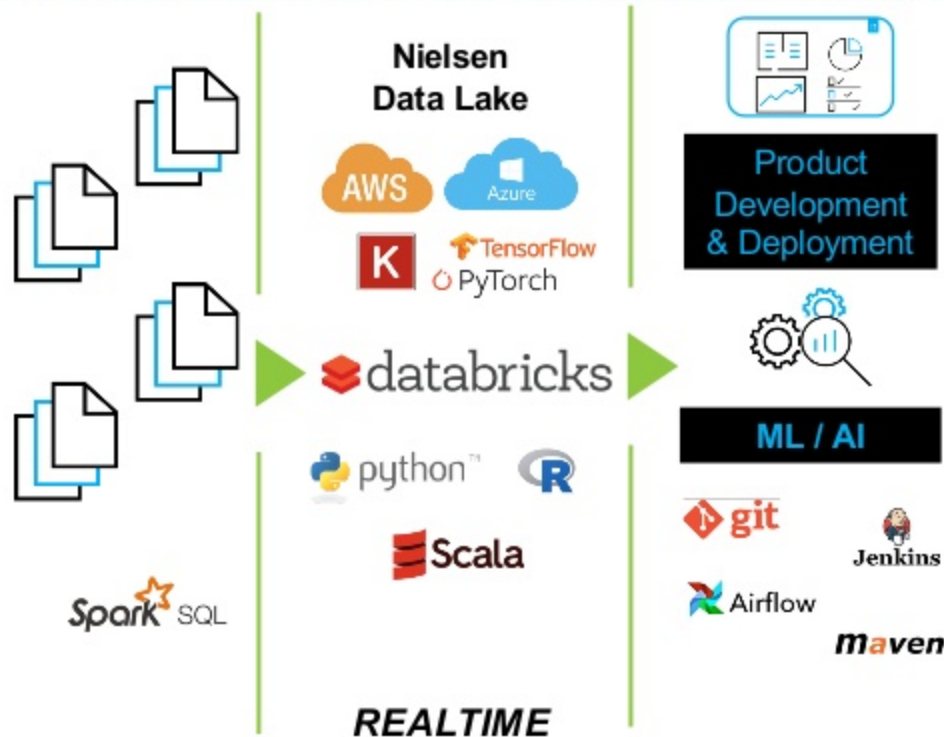


# DATA SCIENCE TRANSFORMATION

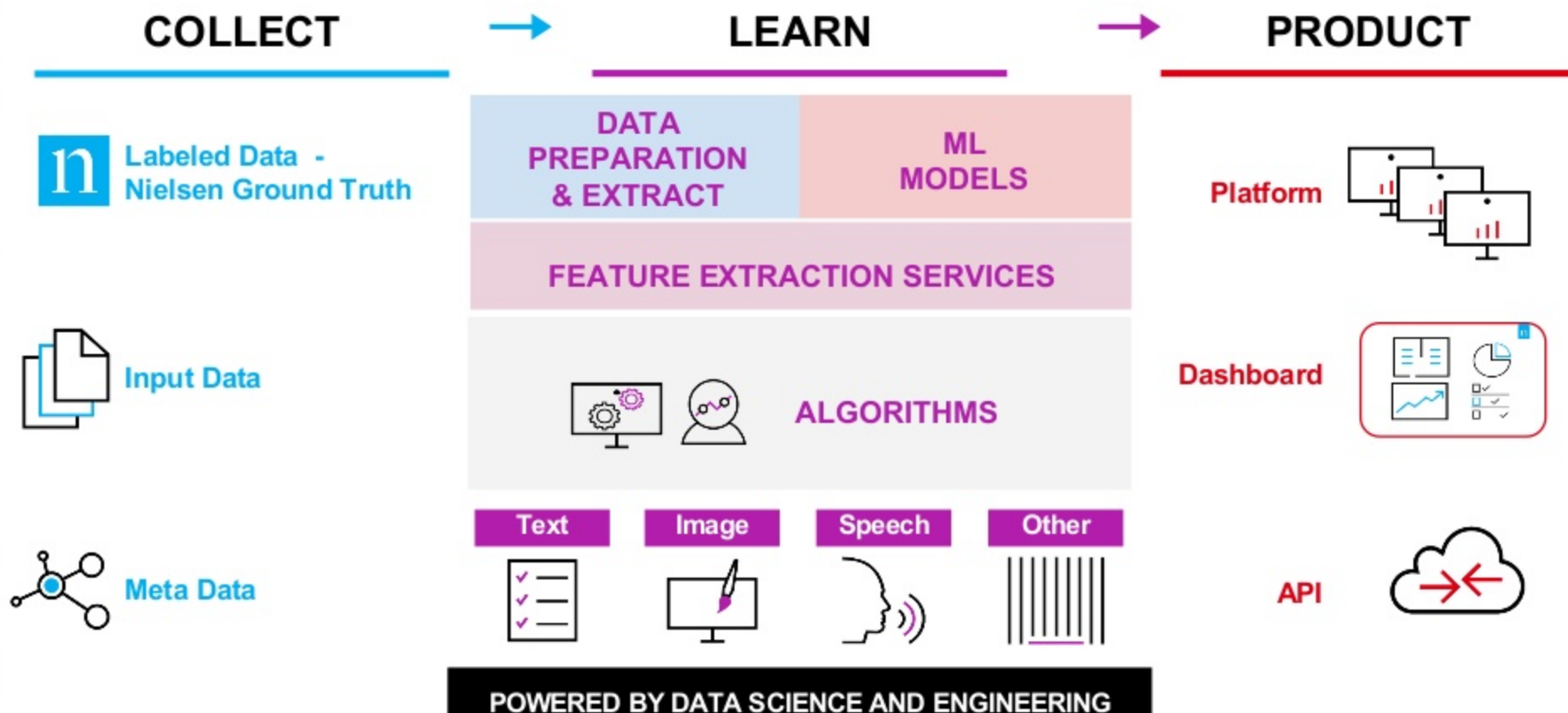
## BEFORE



## TODAY: Democratization of Data and Technology



# DATA SCIENCE PIPELINE





# WHY DATABRICKS AND BUSINESS RESULTS

- Speed, scale, performance
- Self-service cluster management & democratization of Spark
- Excellent Python support
- Collaborative notebooks, less code rewrites
- Full suite of tech — ETL on steroids to ML (ML flow)
- Accelerating unification of data science and engineering

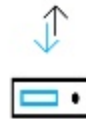


## ALGORITHM



## PERFORMANCE

### PATTERN RECOGNITION

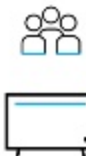


Model household characteristics from viewing behavior

+12 hrs to

30 mins

### VIEWER ASSIGNMENT



Model who is watching media from behavioral and event data

1 week to

< 2 hrs

<Spark>ed a cultural change

# WHAT'S NEXT



**Accelerate AI First strategy**



**Continue integration of Data  
Science deployment with  
Production Pipelines**





# nielsen

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**THE SCIENCE BEHIND WHAT'S NEXT™**

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