



# Customer Journey Analytics

**Sentiment Symposium**  
2017

# The main points

- Make a journey map (an actual picture)
- Validate it with business metrics and analytics
  - Is each step real? (Customer point of view)
  - Is each step measureable? (Business point of view)
  - Use predictive analytics to find causes and message points
- Get customer feedback at each point
  - Surveys
  - Predictive analytics shows key drivers tied to desired outcomes
- Track business metrics
  - While keeping in mind that customer perceptions may not align with internal business statements and objectives

# Why link *journey* with *analytics*?

The customer journey is important, but not enough

- Customers have always had experiences
- What steps make up the experience? What steps lead to positive emotions?
- What steps do we think lead to greater lifetime value?

Business analytics are important, but not enough

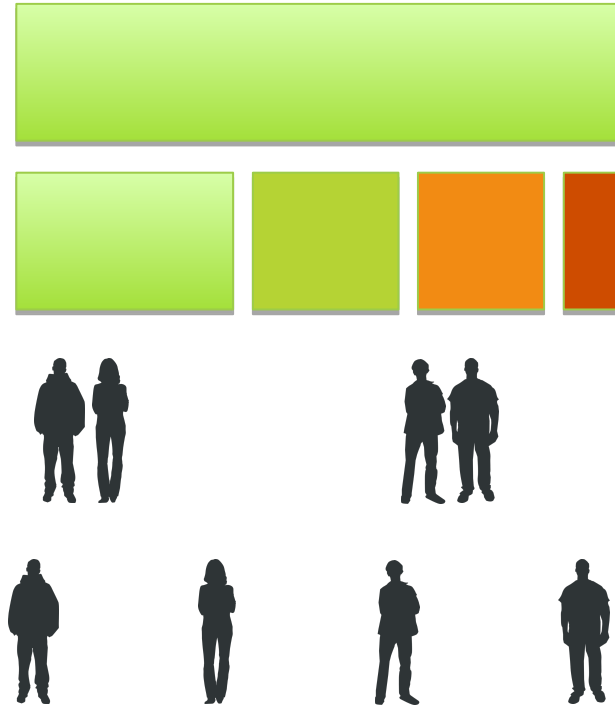
- Businesses have always had operations and analytics
- Counts and sums are simple analytics

Customer journey analytics are strategic and tactical

- Detailed personal data is more widely available
- Businesses can create experience platforms that tie together the journey and the analytics
- Each customer's individual pathway can now be addressed
- Predictive analytics identify personal targeting and important message levers

# Big data makes it personal

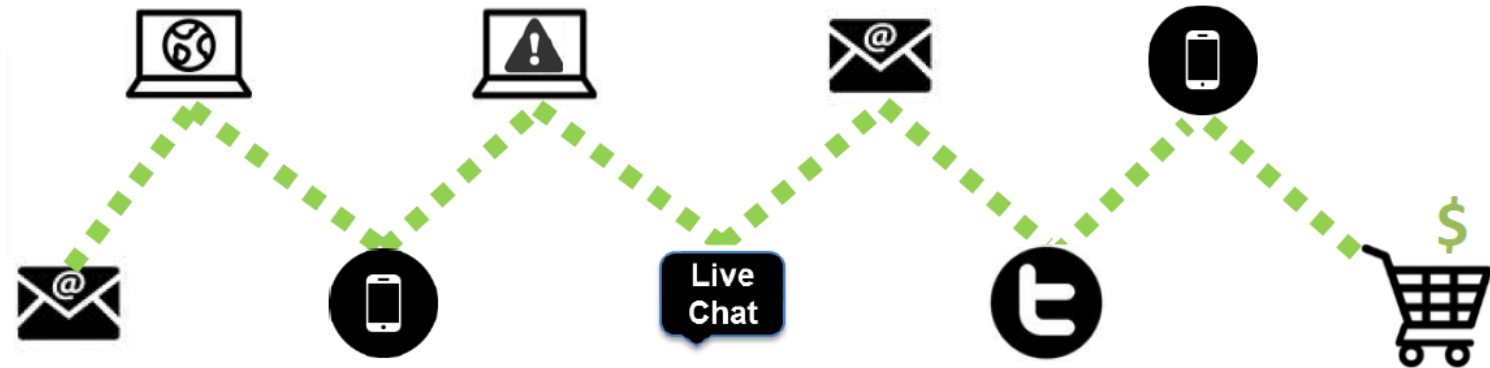
- As the data gets bigger, it contains a higher volume of more specific customer interactions
  - General advertising
  - Segmented marketing
  - Personalized contact
  - Individually targeted and custom messaged



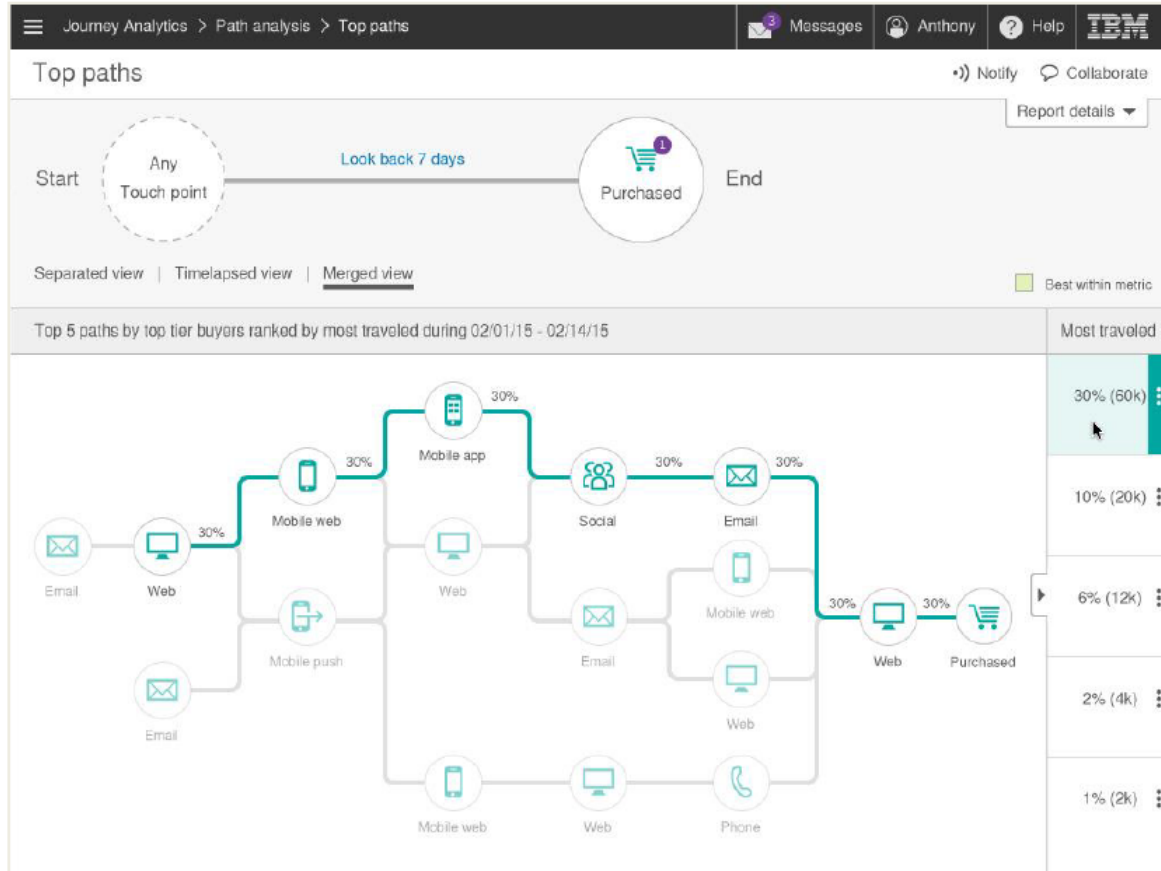
# Not always linear

## Although the map may be drawn in a line

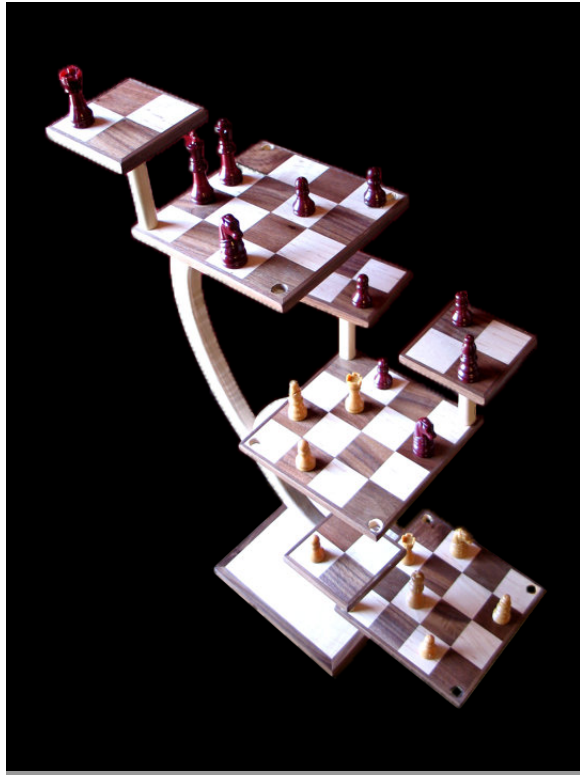
- The customer journey is not always linear
- Has multiple points of interaction
- Has multiple ways of interacting with the customer



# Many paths lead to the same endpoint



# 3-D customer journey analytics



Customer  
Journey  
Mapping

Name the steps in  
the journey and  
make a picture

Customer  
Journey  
Analytics

Use data to  
understand causes  
of behavior

Business  
Metrics

Bridge business and  
customer views  
using analytics

# It's the customer's journey that creates the customer's experience

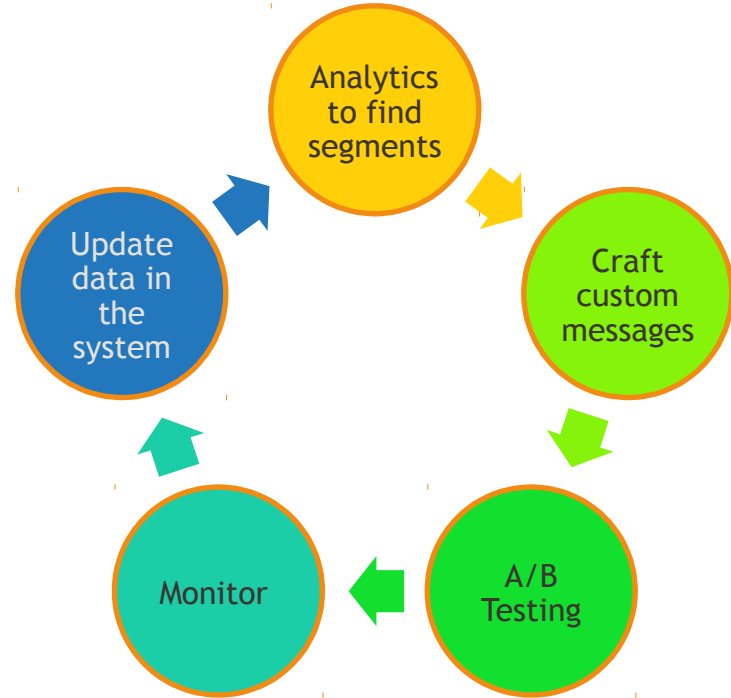
The cumulative effect of all touchpoints in the journey is the *experience*, and it matters to the customers

- To maintain this, the company needs to keep track of
  - The customer point of view
  - The customer journey touch points
  - Analytics that uncover causes of behavior
  - The business operations that support the touchpoints
  - And what it takes to make the business happen



# Organizational support required to iterate

- Using analytics to support business requires strong organizational support
- Create repeatable process
- Define actions and track responses
- Keep models and data up-to-date
- Stay linked to the customer experience



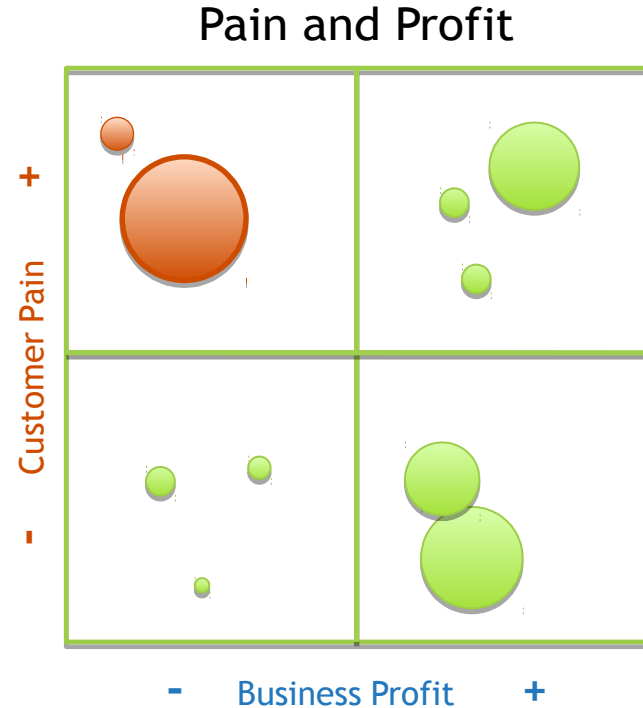
# Maximizing the value of the customer journey

- What are the biggest points of pain for the customer along the journey?
  - Lots of complaints, frustration, friction
  - Very emotional conversations
  - Anger
- What are the risky spots for the business?
  - Points of greatest profit
  - Points of greatest loss
  - Loss of lifetime value

# Choosing where to start

## Focus first on

- Resolving higher pain
- Resolving higher loss
- Involving more customers



# Gather feedback widely to avoid blind spots

## Ask early, ask often

- At beginning
  - How did you hear about us?
- During the journey
  - How well did that step work for you?
- At completion of a path in the journey
  - How likely is it you would recommend us to a friend?
  - Why did you leave us?
- Ask continually
  - And track trends over time

## Use differing methods

- Email surveys
  - To everyone
  - To a random sample
- Response boxes on websites
- Response links on store receipts
- Phone calls

# You don't know what you don't know

- **Ask open ended questions...** Let customers share the experience from their perspective
- **Ask “Why” questions...** Let customers tell you what they think happened
- **Ask more than one kind of question...** Let customers describe different aspects of the experience
  - Don't get caught up in a single metric like NPS
  - Track it over time
  - Also ask “Why?”
- **Ask continually because...** As the world turns... Experiences change...

# Use analytics to tie friction to value

- The squeaky wheel gets the grease. The one who raises a hand gets answered.
  - But most wheels aren't squeaking. Most people don't raise a hand.
  - And they might be perfectly fine.
- Use sentiment analysis combined with business metrics to put customer comments in context.
  - Emerging trend?
  - Bad apple?
  - Valuable segment?
  - Suggestion for improvement?
  - Trolling
  - Compliment?



# Sentiment Analysis

- API classification
  - Watson
  - IBM Bluemix
  - Amazon
  - Google
- Custom models
  - Python NLTK
  - Stanford NLP
- Hybrid systems



IBM **Bluemix**



Google Cloud Platform



 **python**<sup>TM</sup>  
Natural Language Analyses  
with NLTK

Analytics  
can insert new insights  
at every step of the journey



# A customer journey... is an analytics journey

Customer journey map	Business analytics map
See online advertisement	Create demand, which segments to target
Purchase product	Acquire customers, cost per customer, Track best campaigns, best segments
Receive welcome letter	Onboarding customers 30-day / 90-day expected behavior model
Get weekly email, visit website	Send and track communications Behavioral tracking
Make more purchases	Track sales KPI dashboard Predict and measure customer lifetime value
Purchase in response to an ad about a related product	Cross-sell models target related items Upsell models target more profitable items

# A customer journey... is an analytics journey

Customer journey map	Business analytics map
Interact with customer service	Customer service staffing, hot topics, time to get to the right answer
Receive satisfaction feedback survey	Customer satisfaction measurement
Experiences with happy employees	Employee satisfaction and management
Refer a friend	Customer loyalty
Make more purchases	Track sales KPI dashboard Predict and measure customer lifetime value
Switch to a competitor, or reduce spend with us	Customer retention models, messaging, actions
Receive email with coupon and switch back	Win-back models and targeted campaigns

# Analytics inspire strategy, inform tactics

## Strategic Analytics

Which touchpoints does the current campaign address?

What factors predicted success at this step?

What were the top reasons for each customer action?

## Tactical Analytics

Which messages got the best open rates?

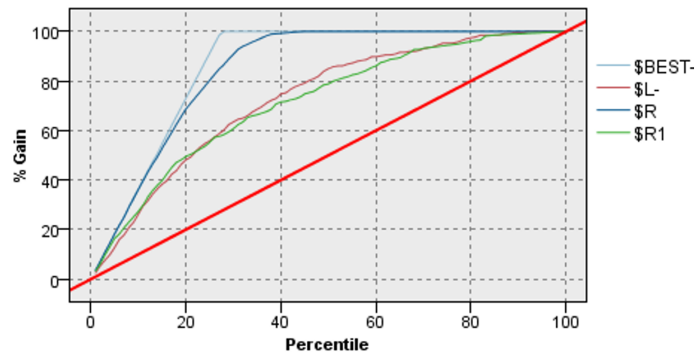
How many people responded to the last campaign?

Was the campaign profitable?

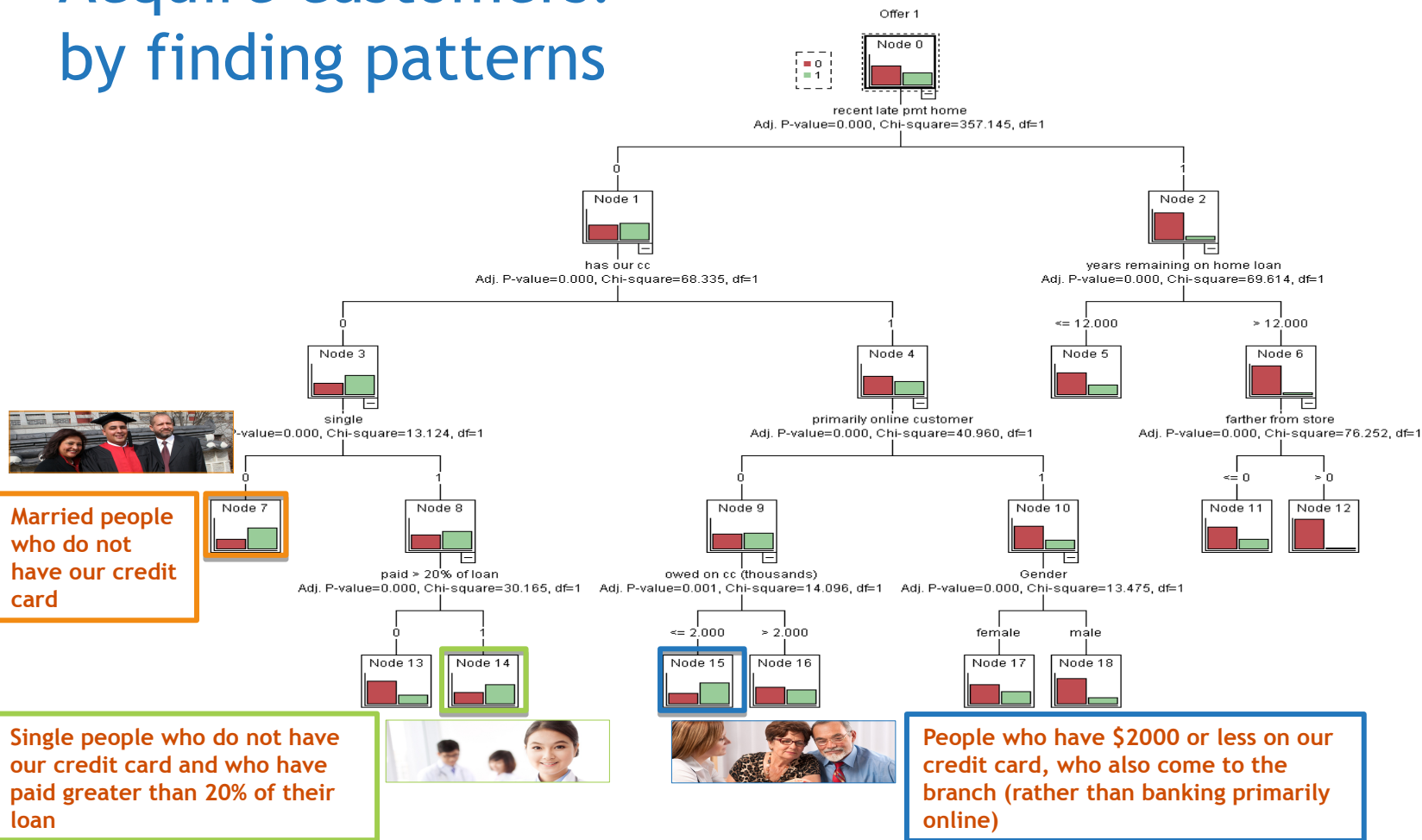
What did we learn that we can use to improve the business?

# Acquire customers: be careful with incentives

- Use the customer journey map to verify the acquisition plan
- Descriptive data is used to build models showing best prospects
  - Initial targeting
  - Incentives may not be needed, or may not need to be as high
  - Retargeting if not acquired
- 2<sup>nd</sup>-best prospects
  - May need more incentive
  - Lift models take into account cost of acquisition and expected profitability

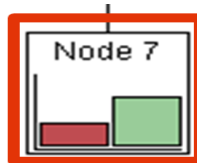


# Acquire customers: by finding patterns



# Acquire customers: by targeting them

- A campaign manager might select likelihood values from 80 to 100, thus taking the **top 20% of prospects** for the campaign.
- Or a campaign manager **might target by segment**.



Married people  
who do not have  
our credit card

# Acquire customers: by testing messages

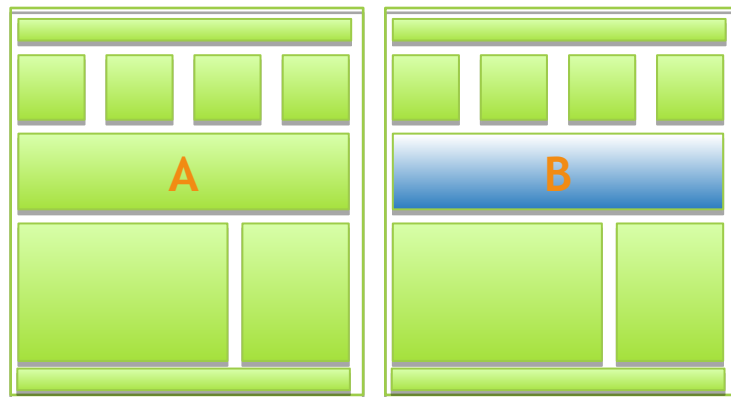
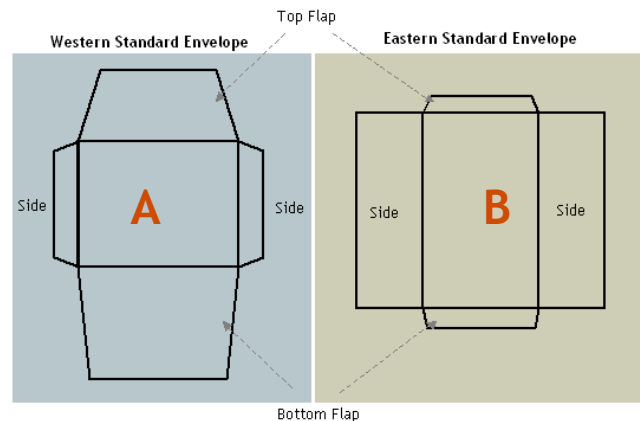
## A/B Testing

### Simple:

- Compare your current message (A)
- to a new one (B)
- Use the most popular one

### More sophisticated:

- Vary the messaging by
  - Channel
  - Channel Combination
  - Sequence
  - Season or timeframe



# Onboarding customers

- Map the customer journey
  - What steps lead up to acquisition?
  - What steps are critical to onboarding?
  - What have focus groups and surveys revealed?
- Find the causes behind purchases in the first 28 days (4 weeks)
  - Based on acquisition data
  - If they don't behave as expected, use more aggressive engagement strategy
- Find the causes behind purchases in the first 91 days (13 weeks)  
Find the causes of dissatisfaction in the first 91 days
  - Based on acquisition data, 30-day prediction, and first 3 months of behavior
  - If they don't behave as expected, use more aggressive communications strategy
  - Base communications on causes identified in the model and from the map
  - Address the gaps in their behavior



# Routine touchpoints

- Monitor each point in the journey map for
  - How recently?
  - How often? How many per month?
  - Monetary value
  - Emotional value
- Track customer participation in the business.  
How often do they
  - Use the service
  - Pay on time, and when did they pay
  - Pay late, by how many days, at what point in the month
  - Renew subscriptions
  - Make new purchases
  - Interact with customer service or sales
- Keep historical snapshots of the data
- Data gathered at routine touch points feeds analytics to
  - **Describe** the customers we have
  - **Predict** the customers we might get
  - **Find gaps** between what our journey map suggests and what people really do

# Sales

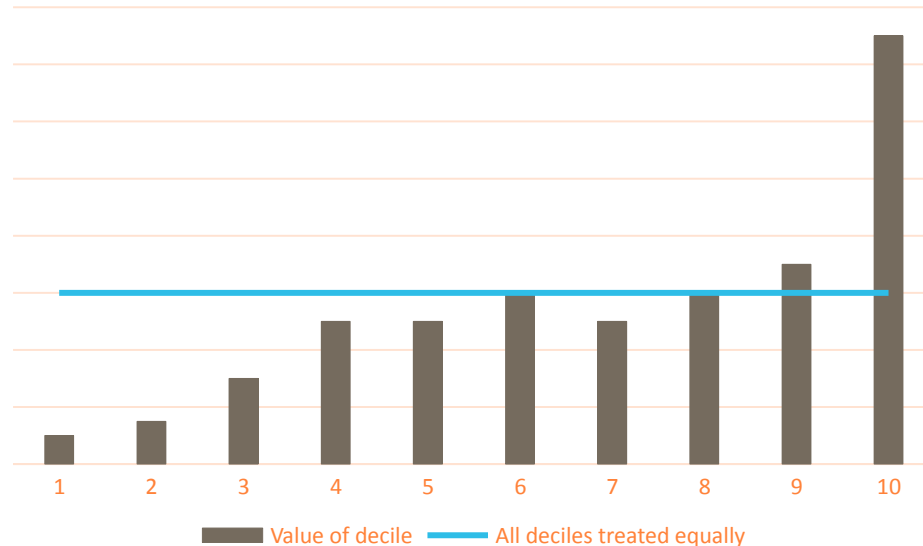
- Verify that the journey map reflects real behavior
  - Allow for looping and skipping steps
- Get feedback from customers about their experiences
  - What was the experience of making a purchase like in their own words?
  - Were some things more difficult than they thought they should be?
- Use tactical analytics for dashboards
  - Assess your current strengths against goals and prior performance
- Use predictive analytics to
  - Find best prospects
  - Figure out who should have purchased, but didn't
  - Provide custom messaging based on suspected causes

# Cross-sell, up-sell

- Increase customer lifetime value by broadening the scope of their purchases
- Business analytics find higher margin products
- Predictive analytics find
  - Products that customers buy together
  - Customers who have one product but don't yet have the second
  - Ranking which customers are most likely to get the second product
  - Most important variable predicting the behavior that can be used as levers in messaging.

# Customer lifetime value

- Identify your best customers, then treat them better
  - Decile them to find the top performers



# Customer service

## No business is perfect

- Treat valuable customers well
- Track what customers are talking about
- Shorten the time it takes to get to the right answer
- Use text analytics to automatically extract the hot topics
- Shorten response time to problems in the field

# Employee satisfaction

- Grumpy employees create bitter experiences
- Analyze internal satisfaction the same way you measure your customer journey
- This could be a big blind spot in your company, that could lead to a lot of friction in your customer journey
  - So don't shy away from it

# Analytics on the employee side

A diverse toolkit of analytical solutions to HR's key business challenges

## A tasting menu of predictive analytics for HR

Business challenge	Analytics solution	ROI measured in...
Employee acquisition	Employee lookalike targeting	Reduced recruitment cost
Employee retention	Propensity analysis	Decreased employee attrition
Wellness	Propensity analysis	More people stick with the program, positive KPIs
Employee experience	Employee journey mapping	Increased satisfaction
Targeted HR marketing	Employee segmentation	Less clutter and distraction, decreased outreach costs

# Customer retention and churn

- Make a plan in the customer journey map for how to handle customer departure
  - How do you know when they're gone?
  - Canceling a subscription is obvious, but what about retail?
- Predictive models can tell who is likely to leave in the next 28 days, and why
  - Prepare retention offers for those likely to use a call center
  - Prepare incentives for customers who have “expired”
- Use win-back predictions; customer acquisition models that also know your past behavior



# Add analytic insights along the journey

- Validate the journey map with business metrics and analytics
  - Is each step real? (Customer point of view)
  - Is each step measureable? (Business point of view)
  - Use predictive analytics to find causes and message points
- Get customer feedback at each point
  - Use open ended questions as well as structured metrics
  - Don't get caught up on using a single metric
  - Capture the “why”
- Use analytics to
  - Systematically quantify what customers say in their own words
  - Find trending topics
  - Understand cause and effect

## A little about Beyond the Arc



Strategy

Analytics

Insights

Action

Beyond the Arc is recognized as a leader in the field of culture transformation. The agency combines strategy consulting with advanced analytics to help companies identify insights and act on them.

### Highlights and credentials

- Recognized by Forrester Research in over 30 reports for our work in culture change, analytics, and customer experience transformation
- Guest lecture on predictive analytics, Haas School of Business, UC Berkeley, 2016
- Featured speaker on analytics best practices, Predictive Analytics World 2017
- Featured speaker, BAI Retail Delivery Annual Conference 2012-2016

### Recent press

- Consumer Reports, 2016
- Bloomberg, 2015
- Fortune, June 2014
- Fox Business, January 2014
- CIO Review, 2016
- Destination CRM, 2015
- Bank Innovation, 2016



SourcingLine  
Top Big Data & BI  
Consultants 2014

SourcingLine  
Top Marketing Analytics  
Consultants 2014



# Thank you

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