WHO AM I?

COMPETENCIES
(AS FAR AS YOU KNOW)

CONNECT?

• Predictive Analytics (we’ll get to this phrase)
• Marketing Intelligence
• Product Channels
• Prompt Presentations – to not impact lunch schedule (my strength)

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Facebook.com/Mapvida
info@mapvida.com (if you like MapVida, but don’t want to talk with me)
“PREDICTIVE ANALYTICS”: ANOTHER BUZZ PHRASE?

Top Data Buzz Phrases
• Predictive Analytics
• Artificial Intelligence
• Small Data
• Fast Data
• Dark Data/Moneyball
**“PREDICTIVE ANALYTICS”: ANOTHER BUZZ PHRASE?**

<table>
<thead>
<tr>
<th>Top Data Buzz Phrases</th>
<th>Big Reveal:</th>
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Top Data Buzz Phrases
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Big Reveal:
MapVida is focused on Predictive Analytics. I fear the phrase may be close to….
HOW YOU SHOP

Customers Who Bought This Item Also Bought

- Coleman Palmetto Cool-Weather Sleeping Bag
  - $24.99 (Prime)
- Slumberjack Latitude 20 Degree Synthetic Sleeping Bag
  - $48.95 - $99.90
- Coleman Brazos 20 Degree Sleeping Bag
  - $29.89 - $139.20

JUMPING THE SHARK HAS ADVANTAGES – IT’S EVERYWHERE
JUMPING THE SHARK HAS ADVANTAGES – IT’S EVERYWHERE

HOW YOU SHOP

WHAT YOU WATCH
JUMPING THE SHARK HAS ADVANTAGES – IT’S EVERYWHERE

WHAT YOU WATCH

ASSIST WITH SEARCH

HOW YOU SHOP
JUMPING THE SHARK HAS ADVANTAGES – IT’S EVERYWHERE

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ASSIST WITH COMMUTES
WHAT ABOUT REAL ESTATE?: USES OF PREDICTIVE ANALYTICS

HOW CONSUMERS SEARCH
WHAT ABOUT REAL ESTATE?: USES OF PREDICTIVE ANALYTICS

HOW CONSUMERS SEARCH

FINDING HOME
SELLERS/BUYERS
WHAT ABOUT REAL ESTATE?: USES OF PREDICTIVE ANALYTICS

HOW CONSUMERS SEARCH

FINE-TUNING DUE DILIGENCE

FINDING HOME SELLERS/BUYERS
EXAMPLES OF CREATING A PREDICTIVE APPROACH

Cluster Solutions against SSE

- SSE on 30 random samples
- SSE on actual sample
- Bent @14-16 clusters

Cluster Solutions against (SSE – Random SSE)

- Flattening @14-18 clusters
- Difference with +/- std dev of difference plot
EXAMPLES OF CREATING A PREDICTIVE APPROACH

IN THIS ROOM

TOO MANY DATA

SCIENTISTS

PROPRIETARY AND CONFIDENTIAL
What are the outcomes you’re looking to predict (this can be harder than you may think)

Determine the predictive method that works best with your data/approach (consult with your data scientist)

Validate often and iterate
### Basics
- What are the outcomes you’re looking to predict (this can be harder than you may think)
- Determine the predictive method that works best with your data/approach (consult with your data scientist)
- Validate often and iterate

### Business
- Does your business generate data/outcomes (it does, but can you access at scale)
- What are the risks of use (risks of the model not working well, or regulatory risks)
- Implementation and ease of use (this is the biggest obstacle)
WAKE UP

IT’S ABOUT TO GET MORE INTERESTING
REAL ESTATE PREDICTIVE EXAMPLES

MAPVIDA™
CONSUMER: LOCATIONS AREN’T PUT INTO “CONTEXT”

THE PROBLEMS

Renting an Apartment

Buying a Home

Travel and Explore
THE PROBLEMS

CONSUMER: LOCATIONS AREN’T PUT INTO “CONTEXT”

BUSINESS: IMPROVE REACH TO AUDIENCES ANDLOCATIONS FOR GROWTH

Renting an Apartment
Buying a Home
Travel and Explore
Marketing Intelligence
Site Acquisition
Asset Management
HOW WE ADDRESS THE PROBLEMS
WE FIND “LOOK-ALIKE” NEIGHBORHOODS
WE FIND “LOOK-ALIKE” NEIGHBORHOODS
WE CREATED NEIGHBORHOOD CLUSTERS – AND ALLOW CONFIGURATION

MapVida Compares and Contrasts Familiar Neighborhoods

MapVida Clusters Millions of Neighborhood Data Points to Find the Familiar

- Business types/ratings
- School types/ratings
- Rate of change
- Walkability
- Housing Affordability (rents and purchase)
- Geographic Data
- Lifestyle

HIGHLY CORRELATED NEIGHBORHOOD

- Measure 17+ Years Rate of Change (not just a static snapshot of the neighborhood)
- Coverage: Top 150 MSAs in U.S.
CREATED CONSUMER FACING TOOLS – TO HELP NAVIGATE UNKNOWN AREAS VIA DATA AND CONTEXT
WE STARTED COMPARING OUTCOMES TO CLUSTER DISTRIBUTIONS – TO FIND OVERPERFORMING AREAS

Essex’s San Fran traffic greatly varies from San Francisco Population...for example type 20 accounts for 42% of web traffic while those neighborhoods only make up 20% of San Francisco’s population.

WEB SITE TRAFFIC

ASSET LOCATION VS. TRAFFIC

PRICE ELASTICITY

PROFITABILITY/TENUR
Case study: Company adjusted its advertising to focus on MapVida’s suggested neighborhoods.

Caveat: Results may vary based on market and previous marketing approach.
WE’VE ALSO BEEN ABLE TO ASSESS DEVELOPMENTS BASED ON PROFITABILITY AND MIGRATION PATTERNS

Lessees coming from type 2 neighborhoods are moving from .5 bedroom units while customer’s properties in type 2 neighborhoods have 1.7 bedroom units.

To attract applicants looking for 2 bedroom units, could focus their marketing on neighborhood types 11, 19, 25, etc...
Similar areas will be useful for realtors and consumers – when there is low inventory or high prices (e.g., realtors can offer solutions at all price points)
USABILITY WAS PARAMOUNT FOR OUR APPROACH

INTUITIVE RESULTS – JUST NEED TO KNOW WHAT YOU LIKE
USABILITY WAS PARAMOUNT FOR OUR APPROACH

INTUITIVE RESULTS – JUST NEED TO KNOW WHAT YOU LIKE

PERFORMANCE MEASURED ON ACCURACY AND EFFICIENCY
USABILITY WAS PARAMOUNT FOR OUR APPROACH

INTUITIVE RESULTS – JUST NEED TO KNOW WHAT YOU LIKE

PERFORMANCE MEASURED ON ACCURACY AND EFFICIENCY

MASS CUSTOMIZATION – APPLY TO CUSTOMER DATA
HERE COMES THE PITCH!
PICK YOUR CLICHÉ (THEY’RE TRUE, BUT STILL CLICHÉ’S)

WE’VE DONE A LOT OF HEAVY LIFTING – WITH RESPECT TO NEIGHBORHOOD SIMILARITIES, LOOKALIKE AUDIENCES
PICK YOUR CLICHÉ (THEY’RE TRUE, BUT STILL CLICHÉ’S)

WE’RE FLEXIBLE– UP FOR INTERESTING USES OF OUR MODELS AND PLATFORMS
PICK YOUR CLICHÉ (THEY’RE TRUE, BUT STILL CLICHÉ’S)

WE’RE INNOVATIVE— WE’VE PRODUCTIZED ANALYTICS SUCCESSFULLY AND ARE UP FOR A CHALLENGE