How can brokers expand and grow the business using Cognitive Insights & AI?
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Building on previous work

- Real Estate Big Data & Insights Maturity Model
- Longitudinal Property Records™
- Real Estate Ontology used for Price Predictions
- Cognitive Engine for Real Estate
Cognitive Insights for the Broker Community

- Broker Insights
  - Deep Learning based Recommendations
  - New Strategies, New Markets, Agents to Recruit, Revenue Forecasts

- Image Recognition
  - Extracting RESO standard data
  - Enabling New Applications

- Data Quality
  - The foundation for better insights
Broker Insights

Historical Transaction Data
Current Inventory Data
Market Data
- Employment
- Development
- New
- ...

Broker Dashboard
Recommendations
- New Strategies
- New Markets
- Agents to Recruit

Revenue Forecasts
New Markets & Strategies

- Annual inventory trend cycles for combinations of:
  - Property Type
  - Price band
  - Geography
- Long term inventory trends for the same criteria
- Employment trends and news
- Development trends and news

Predictions

- Current Market: Growing Segments in the current markets
- Current Market: Price movement predictions
  - List/Sold
- New Markets: Inventory & Price predictions
- New Markets: Tx Volume Predictions
Agent Recruitment

- Recent agent Listing and Selling data by:
  - Property Type
  - Price Bands
  - Zipcode / Neighborhoods
- Inventory & Price predictions
- Agent’s social activity - local community & online

Predictions

- Target agents by expected inventory, property type, and price bands
- Target agents by Zipcode
News based Price Prediction
Backtesting Results

Actual Price Trend in
Miami, FL
April 2011 - Feb 2013

Predicted Price Trend in
Miami, FL
As of March 2012
Image Recognition Model

Millions of images - active inventory and/or historical listings

Classification
- Frontyard
- Backyard
- Family Room
- Kitchen
- Basement

Contextual Object Recognition
- Type of Refrigerator
- Counter Top
- # of Sinks
- Type of Fireplace
- Backyard Playset
Extracting RESO standard data

- Frontyard
- Backyard
- Family Room
- Kitchen
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- Type of Refrigerator
- Counter Top
- # of Sinks
- Type of Fireplace
- Backyard Playset

APIs:
- Get SEO optimized image URLs
- Get image labels
- Get the best thumbnail for a listing
- Get organized images for a listing
- Find a home with a similar room (coming soon)

Millions of images - active inventory and/or historical listings
Enabling new applications

- Power your IDX
  - Select the best or your favorite thumbnail automatically
  - Compares homes using photos
  - Improve your SEO with better image names and labels
  - Make the photos searchable

- Auto-generate engaging videos of your listing
  - Automated captions

DEMO
Real Estate Data Quality

- Data Standardization vs. Data Quality
- Single Listing Record, Listing History, and Property History
- Accuracy and Consistency against other data sets
  - Public records
  - Neighborhood data

- Data Cleansing
RESO Collaboration

RESO Member Promotion

50% off our Sally API pricing to all RESO members

Explore new areas:

RESO Media Labeling Standards
RESO Data Quality Metrics
QUESTIONS?
THANK YOU EVERYONE