Using PropMix.io platform to propel RESO maturity model

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Speakers

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RESO Data Dictionary, Web API standardization, ..
Then?

Big Data & Insights Retrieval

Analytics and Insights
Real Estate Big Data & Analytics/Insights Landscape

Demography, Legal
- Age, Race, Gender
- Migration Patterns
- Language / dialects
- Life Cycle
- Naive vs Expert
- Court, Liens

Personal Preferences
- Birth / death in family
- Job Shifts
- Wedding & relocation
- Social Network

Other key segments:
- Land & Property Appraisers
- Notaries
- Rental Companies
- Research & Consulting Companies
- Listing Companies
- ……. 

Lenders

Agents

Insurers

Contractor

Other:
- Rental
- Prop. Liens: Federal, State, City, County
- Mechanic Liens
- Utilities
- Assignments
- Images, Videos, Floor plans, 3d – drone,

Geography, Government
- Tourism / Natural hazards
- Tax subsidies, Roofing
- New Building Permits
- Property Condition Report
- Credits and incentives
- Release of Forclosure
- Release of Notice of Default
- Trustee’s Deed upon sale
- Probate Realestate Records

Cost & Amenities
- Income patterns, Cost of Living
- Population Growth
- School / Hospital / University
- Public Transportation
- Entertainment

Propensity, Appraisal, Profile
- BPO
- Risk
- Trends
- Insights, Advice, Predictions
- Linked Value
- Best Fit
- Rental AVM
- Leads

Property
- 75M Tax Assessment Data
- 100M rec. 200+ top MLS in USA
- 16M Foreclosures; FSBO, others
- Deed & Mortgage

Digital Consumer

Investor

Seller

Buyer

Locality
1. Real Estate Big Data Maturity

Disparate Big Data ETL – property, locality, services

Big Data
Spatial Enrichment

Longitudinal Property Record
Temporal Enrichment

Digital Consumer Big Data
News/Social Enrichment

Dynamic Longitudinal Property Records
Streaming data integration - IOT
Longitudinal Property Record™

Events:
- Mar 2001: Second Mortgage
- Aug 2006: Deed Mortgage
- Jun 2008: Sold
- Jun 2008: Finished Basement
- Nov 2011: Refinance
- Feb 2014: Installed Solar Panel
- New Permit Data
- Assessment
- Owner initiated events
Cognitive Computing - Continuous Learning from temporal, spatial, and dimensional information yields deeper insights

Property Timeline
- New Home
- Second Mortgage
- Sold
- Finished Basement
- Refinance
- Solar Panel

Life Events – Personal, Professional, Investments, Automotive, Health, ...
- Married
- First Child
- Pay off Stud. Loan
- New Job In Seattle
- New Job In Seattle

Local Census, Demographics, and Development
- Zoning Modification
- New Apt. Project
- 5% increase in families w/ kids

News & Information – Local, County, State, Nationwide, Global
- IBM Opens new office
- Unemployment is reducing in DC area
- School district changes
- FHFA increases Jumbo mortgage limit
- Mortgage rates at 10-year low
2. Real Estate Analytics and Insights Maturity

- Operational Reporting
- Ad-hoc Query & Analysis
- Analytics OLAP
- Dashboards
- Big Data Analytics
- Data Mining
- Static Models
- Dynamic Models
- Cognitive Computing
  - Learning
  - Natural Language Processing
  - Expertise
  - Reasoning
  - Dynamic Models
3. Big Data/Insight Retrieval/Delivery Maturity

- **Structured Queries & EDI**
  - Queries tied to the data structures
  - Rigid data exchange protocols

- **B2B Integration Web Services**
  - Discoverable Web Services
  - Well suited for service to service integration
  - Heavy-weight SOAP/XML with flexibility – strongly typed w/ document attachments

- **Use Case driven APIs**
  - RESTful APIs with JSON or XML payload
  - APIs purpose-built for various use cases – search, lookup, detail, etc.

- **Ontology-based APIs**
  - RESTful or SOAP APIs based on a shared ontology
  - Generic API with generalized querying
  - Leverages the ontology to understand and respond to a request

- **Contextual & Intentional NLP Dialog**
  - Natural language request and response
  - Use context to understand user’s intent and respond with relevant and actionable information

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**RESO**
## Putting it all together: The Maturity Model

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RESO Maturity Model Healthcheck Toolkit

- PropMix Demo
- Healthcheck Toolkit
Thank You

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