

Leveraging Data Analytics

Constance Wilson, CFE, AMP, CMB

EVP Interthinx

314-374-8872

cwilson@interthinx.com • interthinx.com



Benefits to Leveraging Data Analytics

- **Systemic, consistent**, up-front review of loan files
- **Behavior - Pattern Recognition** – impossible to perform manually
- **Actionable Knowledge:**
 - » Less Reliance on Loan File Documents
- **Early Warning Systems**
- **Speed** –

Yesterday



The Good Ol' Days

- Personalized Service
- “No tech”
- Loan touched by few
- Lower loan amounts
- No rush
- Consumer loyalty

- 30-year fixed
- 15-year fixed
- 5/3 year ARM's
- 80% LTV's

Today



- Depersonalized
- “High tech criminals”
- Loan touched by many
- Larger loan amounts
- Speed & Service demands
- No Loyalty

- Stated Income
- NINA
- Interest Only
- Negative Amortization
- Option ARM’s
- 100%+ LTV’s

Recent Headlines...

- Matthew Cox steals over \$3.5 million in Tampa, FL and over \$1 million in Columbia, SC while his accomplice Rebecca Hauck assisted in stealing over \$800,000 in Alpharetta, GA !

 **WANTED** 
For
Mortgage Fraud Identity Theft
Credit Card Fraud
MATTHEW B. COX
DOB 7/2/69, 5'6", 182 lbs, brown hair, green eye



Aliases: Michael Shanahan, David Freeman, Gerald Scott Cugno
Maxwell Price, Bevan Cox, Michael White, Kevin White, James Redd,

Known associate of Rebecca M. Hauck

If seen, call **911** And the
U.S Secret Service at 404-331-6111_{24 hours}

- **Fraud Found in 10 Percent of Real Estate Loan Apps**
Inman News Features (09/15/05); Mara, Janis

The **Federal Financial Institutions Council** reports that financial institutions can curb mortgage fraud by educating personnel on common fraud schemes and implementing strict monitoring systems. According to a white paper issued by the council, up to 10 percent of all mortgage applications in the \$3 trillion annual U.S. residential property market contain some level of material misrepresentation.

The document also points out three primary motives for mortgage fraud: **fraud for profit**, which entails schemes perpetrated by people who do not intend to live in the home; **fraud for housing**, carried out by a borrower who intends to live in the residence that he or she is buying; **and, finally, fraud for criminal purposes such as terrorist activities or money laundering.**

The paper additionally details 10 different kinds of mortgage fraud, ranging from application fraud and appraiser fraud to escrow fraud and fraud involving credit reports

Reported Last Thursday on MBA NewsLink

Borrower(s):

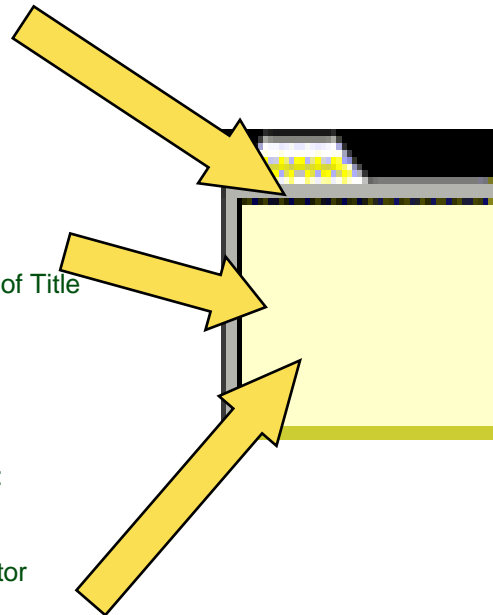
- Identity
- Employment
- Income
- Assets
- Credit
- Residence

Property:

- Value
- History- Chain of Title
- Comparables
- Neighborhood

Parties Involved in Transaction:

- Appraiser
- Broker/Originator
- Realtors
- Sellers
- Closers
- Landlords
- Employers



- Automated Underwriting Models
- Memory
- Hard Copy E-Lists
- Documents in File

Power of Automated Data Analytics

Internal and External Validation Sources

Underwriter



Information Superhighway



- Credit Header Data
- Social Security Admin
- Death Master Filings
- Phone Validation
- Address Validation
- Verification of Employment
- Employer Validation
- Income Validation
- Collateral Valuation
- Predatory Lending
- Broker Licensing
- Appraiser Licensing
- Watchlist Management

Ensure data integrity of the 1003

Validate borrower identity

Mitigate collateral risk

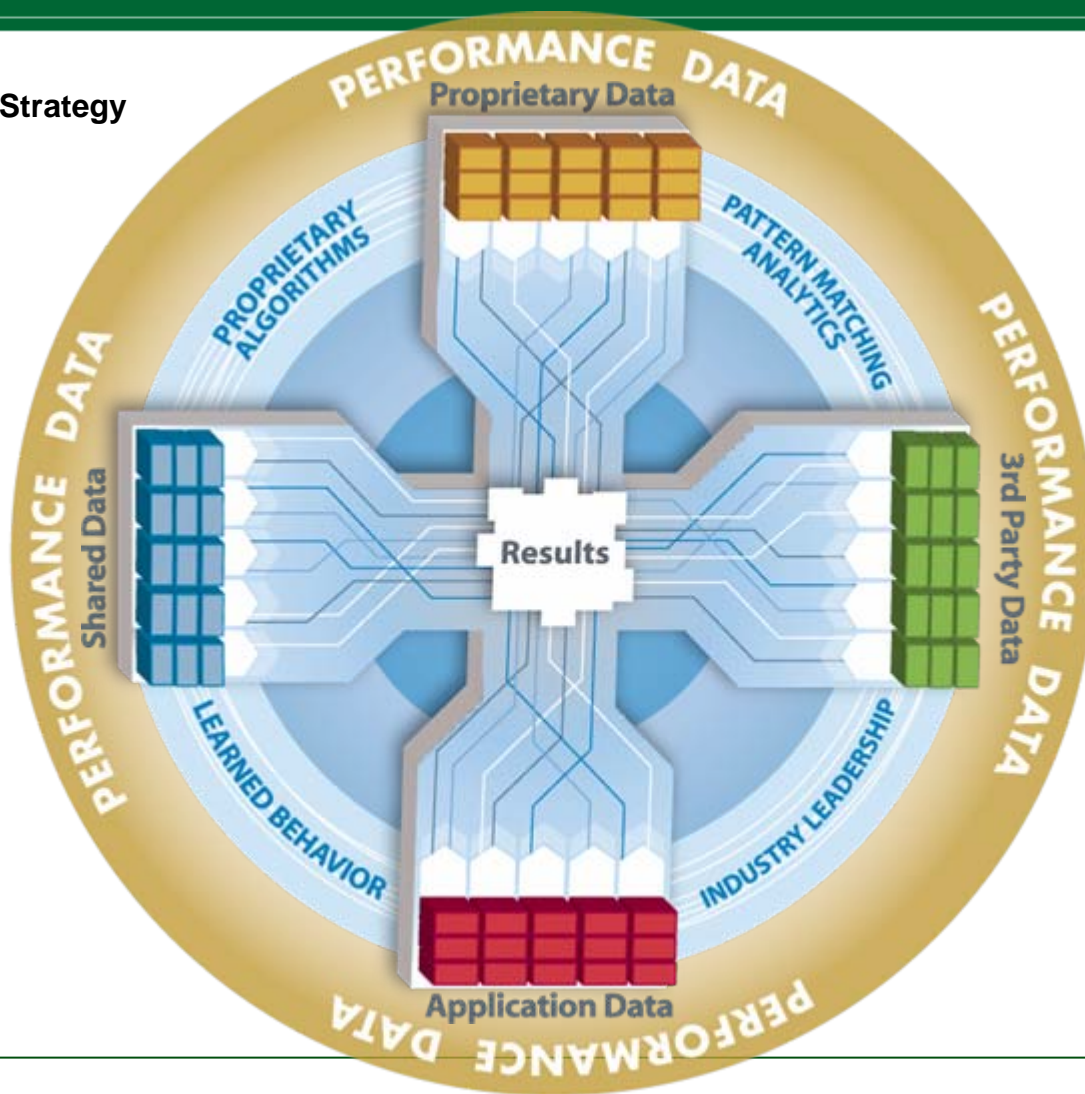
Mitigate third party risk

Analyze trends (pattern recognition)

Quickly identify problem loans



Performance Data Strategy

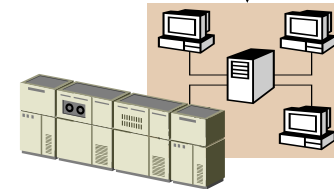


Data Integrity and Analytics



Accepts input from the 1003 data and property value.

Performs input validation and address verification.



Performs external and internal data comparisons.



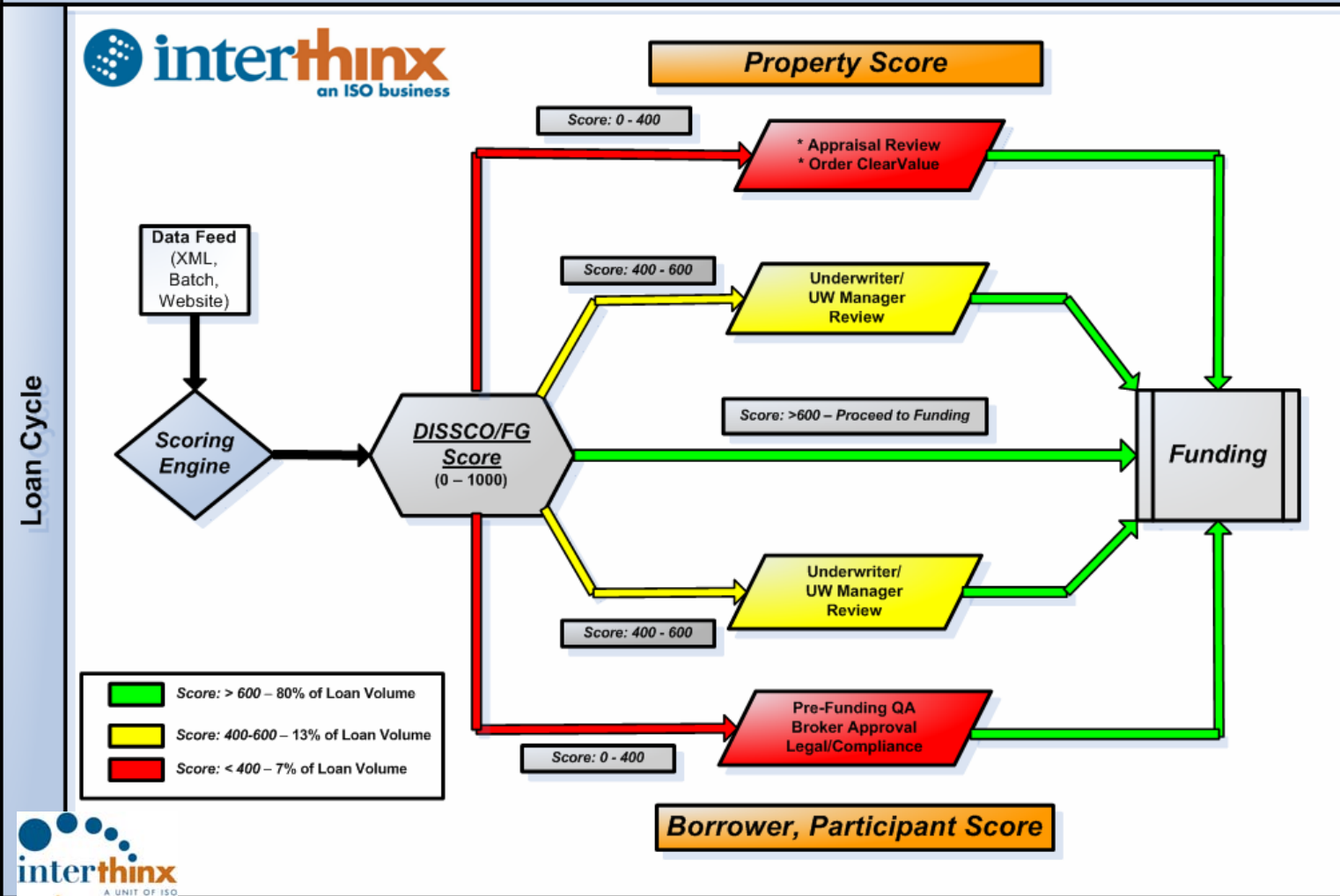
Reports data integrity scores with Variances and Suggested Actions.

Scoring



Performs proprietary data integrity and fraud analysis scoring.

DISSCO/FraudGuard Results Workflow



Borrower

- Identity
- Address Validation
- Phone
- Employment
- Straw Buyer
- Occupancy
- Income
- Silent Second
- Loan Churning
- Conflict of Interest
- Watch List /
Exclusionary List

Participants

- Conflict of Interest
- Appraiser License
Validation
- Watch List /
Exclusionary List
- Client Participant
History
- Global Participant
History

Property

- Valuation
- Flipping
- Title/Ownership
- Address Validation
- Neighborhood
Analysis
- Title Chain

Example – Property Flip

- To determine whether a flip is occurring, an underwriter must research:
 - » What is the purpose of the loan?
 - » Who are the parties involved?
 - » Do any other the parties have a conflict of interest?
 - » What are the prior sale dates of the property?
 - » How quickly did sales occur?
 - How many times?
 - » How did the sales price change?
 - » What are the market conditions in the area surrounding the subject property?
 - » How many other loans do we have:
 - With this borrower
 - Involving this seller – appraiser – broker – etc
 - In this neighborhood
 - › Who was involved
 - › What was the value
 - » Are any of the parties on:
 - Internal E-Lists/WatchLists
 - External E-Lists/WatchLists
 - » Is the Appraiser Licensed

- **AUTOMATED DATA ANALYTICS CAN DO ALL THIS IS LESS THAN 20 SECONDS.**

Without Analytics

Demand/supply	<input type="checkbox"/> Shortage	<input checked="" type="checkbox"/> In balance	<input type="checkbox"/> Over Supply	<input type="checkbox"/> Vacant (0-5%)	130	25	VACANT	0
Marketing time	<input checked="" type="checkbox"/> Under 3 Mos.	<input type="checkbox"/> 3-6 mos.	<input type="checkbox"/> Over 6 Mos.	<input type="checkbox"/> Vacant (over 5%)				

NOTE: Race and the racial composition of the neighborhood are not appraisal factors.

Neighborhood boundaries and characteristics: **THE SUBJECT NEIGHBORHOOD IS IN A WELL DEVELOPED AREA CONSISTING OF MIXTURE OF STYLES AND AGES OF SINGLE FAMILY HOMES.**

Factors that affect the marketability of the properties in the neighborhood (proximity to employment and amenities, employment stability, appeal to market, etc.)
THE SUBJECT IS LOCATED NORTH OF SCHOOLCRAFT & WEST OF EVERGREEN IN CLOSE PROXIMITY TO SCHOOLS,

Well Developed Neighborhood



Economically Stable



Close to Schools





\$230,000 Loss

- Increasing usage of automated fraud detection tools which include data analytics and valuation model
 - Lenders customize the model to meet their specific risk tolerance
 - Lenders are diverting higher risk loans to specialists trained in investigations based on:
 - Score
 - Variance Code
 - Geographic areas
 - Loan Participants
 - Loan Parameters
 - Risk Layering

- Tracking and monitoring participant performance:
 - Originators
 - Closers
 - Appraisers
 - Borrowers
 - Sellers
- Embedding their exclusionary lists and watch lists within their automated fraud detection tools.
- Increasing their staff's level of knowledge through extensive fraud detection and prevention training
- Pursuing restitution and/or referrals

Questions

Constance Wilson, CFE, AMP, CMB

EVP Interthinx

314-374-8872

cwilson@interthinx.com • interthinx.com