THE NEW NORMAL IN RESIDENTIAL APPRAISAL:
LOOKING AT THE FUTURE

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WELCOME TO DENVER!

Me
You
Us
What is a Hybrid Anyway?

Historically

Anything that veers from the “normal”
“Potentially” anything that melds the best of two different processes

In 2005

AVMs

Everyone wants an appraiser’s signature
IN 2019?

It's all about

Bifurcation

Trifurcation

Melding an inspector/broker/Uber driver with.....

An appraiser

That can be troubling to some

But it represents the market's attempt to overcome a perceived problem
ITS ALL ABOUT..

Adaptation and Adoption
Dealing with Threats to Our Profession
The Rise of AVMs: 1995-2005

We saw a threat and we resisted
(and it was a real threat)

AVM Providers wanted appraisers to sign hybrid reports to somehow make them more “credible”
WHERE ARE WE NOW?

Overcoming the resistance to AVMs and their underlying technology

AVMs have retreated to their “space”
Appraisers are less paranoid about the technology and the underlying analytics
We have achieved a kind of detente
THE TECHNOLOGICAL REVOLUTION IS HERE

Breathtaking in scope and speed

Data

Devices

Interconnectivity

Like a turbine-its only going to get faster
OUR PRIMARY ANALYTICAL TOOL
WHAT ELSE WAS HAPPENING IN 1982?
The tools of the Present Are the Tools of the Past.....

We just don’t know it yet

Elvis has left the building
Bigger trends in technology in general will enable real estate analysis.

What are the most likely trends that will influence our ability to analyze data more effectively?
THE TRENDS TO WATCH FOR

Cloud Computing
Big Data
Mobile Technology
Social Networks
New Analytics
Augmented Reality
BIG DATA

More data on virtually everything
How is the data analyzed?
What is the benefit?
Data availability will only accelerate - *Big Data 2.0*
Where are the tools to analyze?
What you need to look for
What you need to do
The old order changeth, yielding place to the new..."
Predicts the decline of today’s professions

The Compact between society and today’s professionals

Increasingly capable data and systems to take their place

“We will neither need or want doctors, teachers, accountants, architects, consultants, lawyers and many others to work as they did in the 20th century”

THE FUTURE OF THE PROFESSIONS

BUT BEFORE WE DO.......
WE ARE LIVING IN AN INFLECTION POINT

Similar to the Industrial Revolution

New technologies are exponential, digital and combinatorial

Most of the gains are still ahead of us

In the next 24 months the planet will add more computer power than it did in all previous history

The growth in data is exceeding Moore’s law

The future depends on the choices we make
Some of the most remarkable innovation is occurring in real estate technology.....

Except its for brokers!

HOW DO WE AVOID BEING RELEGATED TO A BACKWATER ENVIRONMENT?
Buyer experience

Matching buyers to properties more effectively

Broker vs. Bot

Recommendation engines

Real Estate firms emphasizing their use of AI: Rex Real Estate

Augmented Agents
Two RICS White Papers:

4th Industrial Revolution

Billions connected by mobile devices with access to information

Changes coming to information workers

Disruptive changes to appraisal
WHAT ARE THE RISKS TO APPRAISAL?

Real estate will change to compete on a level playing field with other asset classes

- Securitized
- Dynamic
- Flexible
- Transparent
- Real Time
The greater the amount of data,

The more likely that technologies like Artificial Intelligence can replace the process of examination, interpretation and analysis.
LOOKING AT APPRAISAL SKILLSETS

General Data Acquisition
  Broad Market Overview
Specific Data Acquisition
  Sales/Income/Cost
Narrative Description
  What/When/Why
Property Inspection
  In person/Drone
Unusual Properties (No two alike)
Applying market data to subject
Interaction with Client
Reasoned Conclusion
LOOKING AT APPRAISAL SKILLSETS

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  - Broad Market Overview

Specific Data Acquisition
  - Sales/Income/Cost

Narrative Description
  - What/When/Why

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Applying market data to subject

Interaction with Client

Reasoned Conclusion
Scenarios to consider
A CHANGE IN SKILLSETS

Change will be driven by clients—we are a service profession.

The greater the data the more likely that automation can/will prevail.

Valuation is extremely vulnerable from this perspective.
Market Insight will continue to be valuable

Looking at the property will likely still be required in the short-term

Augmented analysis bringing together expert systems/intelligent agents makes the most sense

“Augmented” Intelligence is the key

Differentiate yourself with real-time and complete market knowledge

Become a Data Valuation Scientist
TAKE ADVANTAGE: MOBILE TECHNOLOGY

Good-bye desktop, good-bye laptop

Hello tablet and iPad

This changes everything

Three monitors is not the solution

Going smaller and going mobile

Completing the appraisal in the field
MANY OF MY FRIENDS

Are Chief Appraisers

Two Camps

It’s the End-Times

If Appraisers do the right things—they can adapt, they can adopt the right strategies, and they can survive

The challenge?

Slow turn-times

Unwillingness to adapt
THE SOLUTION?

My optimistic friends
    Take an appraiser
    Take their skill set
    Take their market knowledge
    Add Analytics
Conquer the world!

ASA Quote
AN UNDENIABLE TRUTH

AVMs retreated to their space for now
There is a divide
They are lurking in the background
Seeking their place

Current Status
Increased accuracy
Greater ambition to try again
THE STATE OF AVMS

Where are we today?

Better Data
Machine Learning
A.I.

Hyper-Accurate Modeling

Visual Recognition/Evaluation
Non-Traditional Data
Neighborhood-Level Data
THE (VERY) NEAR FUTURE

The Ability to Deal with Qualitative Valuation Elements

View
Floorplan
Quality
Condition
“Curb Appeal”
Kitchen/Bath Remodel
Consumer Preferences
CHALLENGES

Fannie Mae/Freddie Mac Data/Analysis
  Closed
  Private
  Banks can see
  Appraisers can’t
The Very Predictable Outcome
  Goliath knows more than David
How does a sole practitioner deal with that?
ACCURACY WILL ONLY INCREASE

Pedro Dominguez
The Master Algorithm
R Squared to the Nth
Understanding the unknown
Figuring out “human nature”
THE ZILLOW PRIZE-2019

$1,000,000
Crowdsourcing Perfection
+/- 4.5% Absolute Actual Value was the goal
+/- 4.0 was achieved
THE INGREDIENTS

Two Continents/Three Time Zones
Artificial Intelligence
Machine Learning
Big Data
AN UNDENIABLE FACT

2019 AVM Roundtable
One of the Nation’s Leading Rating Agencies
Their perspective on AVMs
They like the concept
An appraiser going to the house
Inspecting
Evaluating data
Delivering a credible appraisal
The “Gold Standard”
THE OPPORTUNITY SPACE

This is

Our Space
Our Strength
Our Opportunity
Our Challenge

The Challenge?

Where do we go from here?
CAN APPRAISERS WORK WITH AVMS?

What does that actually mean?
- An AVM, or
- The technology itself?

My Experience

The challenges
- No “Real” Guidance
- USPAP/Foundation not Helpful in the least
- Confusion and Distrust
AVM STANDARDS AND THE FUTURE

No Standards

USPAP Useless
IAAO 2018 AVM Standard
  Some AI Member input (primarily review)
  Same old/same old (with all due respect)
  No real “interactive” focus or advice

A Thought

This is the “undiscovered country”
The Biggest Question: “How does a valuation analyst work with statistically-derived data, predictive analytics, etc.”
WHAT COULD THE (NEAR) FUTURE LOOK LIKE?

Let’s look at Residential and Commercial with a Focus on Analytics.....
Flood and Plat Maps
Data visualization using heatmaps, allowing appraisers to identify comparable markets
Submarket analysis allowing appraisers to identify and choose submarkets applicable to the report.

Particularly beneficial in densely populated metros.
Meaningful statistical analysis

Flexible and open to add custom analysis driven by lenders or AMC’s
FNMA: MCA MARKET ANALYSIS is driven by data analysis.
Regression analysis, using data visualization, and data analysis giving to Appraisers a full control of the process.
Out of the box support for the main four forms

Easy to support hybrid or alternative valuation forms
Sales and Listings
Comparable analysis
Cost Approach analysis
Value Reconciliation done by Appraisers using the four valuation methods contained in ValuationNavigator.
Reports on both PDF and XML formats

API to integrate with:
- 3rd Party Systems (i.e. FNC)
- Desktop Appraisal Software
- Proprietary web forms
LEST WE IGNORE THE CANARY IN THE COAL MINE

AVM Development in CRE Space

Failed in 2001 (CoStar in its infancy)

Multiple efforts by multiple players in the last 18 months

Not as complex as residential; fewer variables;

Less “qualitative or emotion-based”

Technology available in the assessment world for at least two decades

It's Here

Implications
WHAT WOULD A COMMERCIAL AVM LOOK LIKE?

It would involve a **person**
It would involve **Big Data**
It would involve **AI**
It would involve **ML**
It would leverage an **Appraiser’s Skill Set**
It would **learn**
It would **advise**
It would be a **tool**
Hey Siri: Show me all retail properties in metro Denver.
HEY SIRI: LOOK AT MY SUBJECT PROPERTY AND FIND THE SALES THAT ARE MOST SIMILAR IN AGE, USE-TYPE, SIZE AND LOCATION
HEY SIRI: NARROW THE SEARCH TO THE LAST SIX MONTHS OF SALES
HEY SIRI: MINIMIZE THE DIFFERENCES, RANK THE MOST COMPARABLE SALES AND DISPLAY THE TOP SIX SALES
HEY SIRI: SHOW A 1.5 MILE RADIUS AROUND THE SUBJECT AND IDENTIFY ALL RETAIL PROPERTIES: SUMMARIZE VACANCY, SP/SF; ABSORPTION
SIRI: SEND THE TYPICAL CONFIRMATION MAIL TO THE BROKER WITH QUESTIONS RELATING TO ALL FIVE SALES
To: knott@uniqueprop.com
Cc/Bcc, From: mlinne@valuescape.com
Subject: 2800-2810 N Madison St (PropertyID: 10498204)

Sent from my iPad
SIRI: SEARCH GOOGLE AND IDENTIFY ALL ARTICLES ON RETAIL MARKET CONDITIONS; SUMMARIZE AND EXTRACT RELEVANT NARRATIVE
SO WHAT IS MISSING?

Market Analysis
Valuation Analysis
Valuation Conclusions
Probability of Accuracy
Futurecasting
TAKE ADVANTAGE: NEW ANALYTICS

Regression Analysis
Geographically-Weighted Regression
Monte Carlo Analysis
Non-Linear Modeling
More Data-Better Models
AVAILABLE RESOURCES:
MAKING THE RIGHT MOVES

Continue to be open to change

Look for opportunities to analyze data more effectively

When intelligent agents become widespread—adopt!

Keep up to speed on every technological advantage that you can
The era of innovation is asymmetric – the winners will be rewarded handsomely and the laggards will be left languishing far behind. Everyone understands that we live in a world of technological change. But companies that do not innovate will struggle to survive. They will be digitally disoriented, quickly losing touch with their customers, who will be more technologically literate than those who seek to provide them with services and products.

So, far from killing us off, I see the great disruptions we are now going through as the prelude to a new golden era for companies like News Corporation.
THANK YOU!

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