

M9L10. Zillow Offers Real Time Data

Slide #1



The slide cover is divided into two main sections. The left section is a dark grey rectangle containing the Texas A&M University Engineering logo at the top, followed by the title 'Zillow Offers Real Time Data' in white, the presenter's name 'Dr. Xiaomin Yang', and the course information 'TCMT 612 | Technical Management Decision Making' in yellow and white. A red banner at the bottom of this section reads 'MASTERS OF ENGINEERING TECHNICAL MANAGEMENT'. The right section is a light grey image showing a man in a white shirt standing with his back to the camera, looking at a large, curved digital display. The display shows a complex network graph on the left and several data visualization icons (bar chart, line graph, network diagram, and area chart) on the right.

TEXAS A&M UNIVERSITY
Engineering

Zillow Offers
Real Time Data

Dr. Xiaomin Yang

TCMT 612 | Technical Management
Decision Making

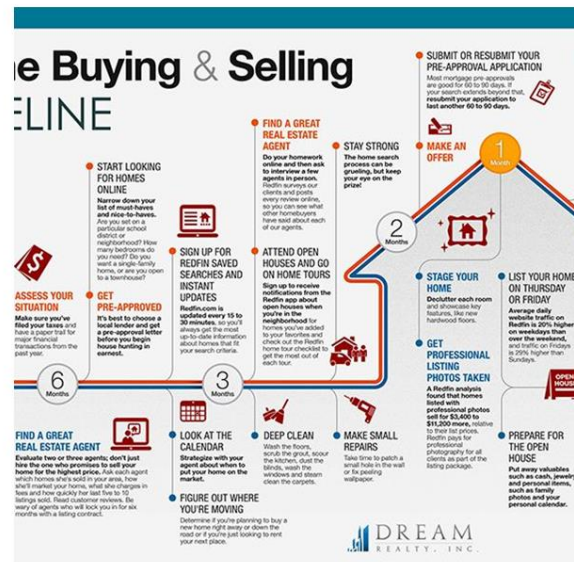
MASTERS OF ENGINEERING TECHNICAL MANAGEMENT

Slide #2

Personalized Offerings

Uses of data

- **E-commerce**
 - algorithms generate a customized shortlist of goods for a shopper to choose from
- **Online streaming**
 - to select customized media titles for an individual subscriber



We can briefly compare how iBuying companies with e commerce or online streaming companies use data in their business offers.

For e-commerce, algorithms generate a customized shortlist of goods for a shopper to choose from.

Buyer's purchase data is consistently processed to polish the algorithms to make more accurate recommendations next time, and more importantly, to help the company optimize its supply chain and inventory to minimize operation costs.

Online video services use algorithms to select customized media titles for an individual subscriber.

Video streaming companies make their content's purchase decisions based on real time viewers favorite trends.

Sophisticated media companies such as Netflix and Disney even incorporated detailed viewers preference data into their content creation decisions.

Slide #3

iBuying Data Analytics Difficulties

- Nonavailability of real-time data
- Extended iBuying process
- iBuying service providers need at least 100 days of data for algorithm enhancement
- Automatic price add-ons, could increase the price by up to 7%



According to Realtor.com, the process of closing a home deal for an all cash buyer takes approximately 15 days, while sellers typically require an additional 30 days to move out.

Considering the time required for renovation and reselling, the overall iBuying process extends to more than two months.

To enhance their algorithms through supervised learning, iBuying service providers need at least 100 days of data that includes purchase costs, renovation costs, and flipping revenue for a specific property.

In response to the rapid increase in home prices in 2021, Zillow had to make adjustments to its system.

This involved incorporating automatic price add-ons, including a feature called the gross pricing overlay that could potentially increase the price by up to 7%.

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Human-Machine Collaboration

Balance between automation and human judgement and decision making.

Ineffective translation of business judgement into computer systems.

Distinguish between computer generated price and expert recommended adjustment



While technology plays a crucial role in streamlining and automating processes, it's essential to maintain a balance by incorporating human judgment and decision making.

Relying solely on algorithms without room for human intervention can lead to limitations and potential drawbacks.

Business judgment, which often considers a variety of factors beyond pure data, may not be effectively translated into computer systems.

However, embedding business judgment directly into computer systems can be a precarious decision.

To mitigate potential issues, iBuying service providers like Zillow should distinguish computer generated price, and experts recommended adjustment to enable machine human collocations to decide reasonable offers.

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Human-Machine Collaboration

Incorporating human judgment and maintaining a balanced approach that combines technological capabilities with business acumen is crucial to navigating the complexities of the real estate market successfully.



While iBuying services require a significant amount of time to collect data and refine algorithms, it's important to consider the limitations of relying solely on computer systems for decision making.

Incorporating human judgment and maintaining a balanced approach that combines technological capabilities with business acumen is crucial to navigating the complexities of the real estate market successfully.

Slide #6

Lessons Learned

Data models hold limited capabilities of using historical data to accurately predict future numbers under rapid changing business environment.



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Slide #7

Lessons Learned

A business shall build transparent decision-making processes that clearly distinguish automated outcomes and business adjustment based on human judgement.



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