The Impact of Technology on Home Buying

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● IT has disrupted several “service-oriented” industries:
  ○ Travel agents
  ○ Classified ads
  ○ Stock trading
  ○ Tax preparation services
  ○ Car dealers
  ○ Vacation Rentals

● Residential Real Estate transaction services will be similarly disrupted, providing business opportunities as well as benefits for consumers, such as:
  ○ Lower costs
  ○ More transparency
  ○ Improved process simplicity and efficiency
  ○ Better regulatory compliance and risk reduction
Market Size by Numbers (2013, Source: NAR, others)

EHS Units: ~ 5.09M
Avg. Sale Price: 197K
Total Txn. Value: ~1T

Total Brokerage Fee: ~48B (@ 5.5%)
Total Escrow Fee: ~2.5B

Agent Assisted Sides: 8.8M (88% of 2*5.09M)
Avg. Sides per Agent: 12
Median Agent Income: 47.7K
No. of brokerage firms: 109K
Most buyers are using the Web to find homes ...

... but 88% of buyers and sellers still need agents to close the deal, paying upto 6% in agent commission.
Here is how the system works.

1. **Buyer**
   - Buyer Agent
   - Does research, finds properties
   - Provides access to houses for physical inspection

2. **Seller**
   - Seller Agent
   - Contracts for listing and other services
   - Seller pays a fixed percentage of the sell price as commission

3. **Regional MLSs**
   - Lists properties
   - Provides the infrastructure to agents

4. **Brokerage Firms**
   - Provides the infrastructure to agents
   - Lists properties

5. **Real Estate Online Media Portals**
   - Aggregates, adds additional info. and services

6. **Real Estate Discount Brokers**
   - Buyer pays a fixed percentage of the sell price as commission

7. **Appraisers**
8. **Escrow/Title Co.**
9. **Inspectors**
Traditional Brokers

Existing Players

Online Marketplace

Discount Brokers

Company | 2013 Revenue
--- | ---
Zillow | $200M
Trulia | $143M
ZipRealty | $75M
Redfin | Private
Auction.com | Private

Brokerage Firms by Sales Volume

- Traditional Brokerage Firms
- NRT LLC: $151B
- HomeServices of America: $10.5B
- The Long & Foster: $2.7B
- Douglas Elliman
- Alain Pinel Realtors
- ZipRealty, Inc.
Web based lead generation companies are growing ... … but Web based low cost brokerages are slow to gain acceptance.

Note: Trulia being acquired by Zillow

Note: ZipRealty being acquired by Realogic
Disruptors

ForSaleByOwner.com
• Owned by Tribune Company
• Direct transactions between sellers and buyers
• Online listing packages, advertising services, tools and resources
• Benefits Marketed: Saving money

Auction.com
• Founded in 2007 and private
• Investors: Stone Point Capital and Google Capital
• Technology leverages the competitive bidding process
• Collaboration with buyers’ and sellers’ agents
• Benefits Marketed: Making transactions easier and more transparent

Redfin
• Founded in 2002, still private
• Funded by angel investors and VCs
• Reduced commision agent/brokerage model
• Limited markets around the US
• Emphasis on technology, customer experience
• Benefits Marketed: Saving money, faster sales
ZipRealty Overview

Brokerage Platform

- Owned and operated residential brokerage
- 23 offices with presence in attractive markets that complement Realogy’s footprint
- ~1,800 connected, high-performing sales associates

Integrated Technology Platform

- Digital brokerage solution spanning the entire real estate transaction lifecycle
- Intelligent end-to-end support for consumers, sales associates and brokers
- Empowers sales associates and brokerages to most effectively manage and grow production

Integrated technology enhances consumer and agent experience, leading to improved productivity, market share and retention
● Retail Industry Hold
  ○ Principal-Agent Problem: The diverging, often conflicting, interests of the principal (the customer) and the agent representing him or her
  ○ Two agents required to complete transaction: subtle collusion
  ○ MLS controlled by real estate agents

● Consumer Psychology
  ○ Need help with pricing and negotiations
  ○ Reaching the largest audience with listings
  ○ Relatively infrequent transaction - don’t want to take the risk

Results from “market” survey

**In your opinion, do real estate agents provide a valuable service that is commensurate with the commissions charged?**

- Yes: 8.70% (2 responses)
- No: 91.30% (21 responses)

**Evaluate the following statements.**

- If there were an online service for real estate transactions to guide you through the process, it’s unlikely to be a terrore tax for...
- Similarly, how likely are you to use an online service instead of going to a real estate agent to sell a home...

**If you are unsure, unlikely or very unlikely to use an online service for a real estate transaction, please indicate possible reasons why. You can choose more than one reason.**

- Legal Reasons: Concerns on legal accuracy of documentation
- Pricing Concerns: Would prefer that a real estate agent moderate the price
- Human Interaction: Don’t like the idea of an impersonal online transaction

**Answer Choices**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Responses</th>
</tr>
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<tbody>
<tr>
<td>Legal Reasons: Concerns on legal accuracy of documentation</td>
<td>60.00% 6</td>
</tr>
<tr>
<td>Pricing Concerns: Would prefer that a real estate agent moderate the price</td>
<td>60.00% 6</td>
</tr>
<tr>
<td>Human Interaction: Don’t like the idea of an impersonal online transaction</td>
<td>30.00% 3</td>
</tr>
</tbody>
</table>
Real Estate Agents do bring *REAL* value ...

- Information source on available properties - *now largely obsolete*
- Enabling buyers to find homes & sellers - *becoming obsolete*
- Supporting the bidding process
- Seller’s agent: home listing, staging, open house
- Buyer’s agent: access to houses for visits
- Intermediary services between parties
- Advisory role during the transaction process

**Transactions are complex and highly consequential for buyers and sellers**

**Consumers value the specialized experience agents provide**

… but do they justify the high fees in US?

<p>| | |</p>
<table>
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<tr>
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<tbody>
<tr>
<td>UK</td>
<td>1 - 2%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1.5 - 2%</td>
</tr>
<tr>
<td>Israel</td>
<td>4%</td>
</tr>
<tr>
<td>US</td>
<td>5.4%</td>
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</table>
The Real Estate Innovation Dilemma

"The criteria used by customers to choose one product over another changes to attributes for which market demands are not yet satisfied"

Clayton Christensen, *The Innovator’s Dilemma*

- Christensen's evolutionary stages of the basis of competition:
  - Functionality, Reliability, Convenience and Price
- Theory: The Real estate industry is still in the *reliability* phase of competition
- Shift to competition based on price/convenience likely to be gradual due to:
  - High financial riskiness of transactions
  - Complexity of the home buying process
  - Lack of consistent standards to compare services
- Competence and trust of real estate professionals still important
  - Many consumers not willing to sacrifice specialized services for price
Two Potential Futures

Buyers and sellers interact with an online site to get specific services.

Broker uses technology service providers to gain efficiency and cut costs.
Conclusions

Real Estate...

<table>
<thead>
<tr>
<th>As an Information-Intensive Business</th>
<th>As a Professional Service</th>
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</table>
| Technology advancement greatly benefiting consumers  
  ● Increased visibility of the market  
  ● Increased process transparency  
  ● Connecting sellers with potential buyers | Consumers still value specialized experience, advice, social connections  
  ● Transactions are complex and highly financially consequential |
| Agents and brokerages also have opportunities to innovate | Alternative cost models competing with the traditional commission structure  
  ● Reduced commission agency, fee-based agency, and direct transaction models will coexist for some time |
Conclusions  
(continued)

<table>
<thead>
<tr>
<th>The Buy Side</th>
<th>Sellers</th>
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<tbody>
<tr>
<td>Buyers are motivated:</td>
<td>Seller are motivated</td>
</tr>
<tr>
<td>● To find the right property</td>
<td>● To seek a premium selling price</td>
</tr>
<tr>
<td>● Desire for a transparent process to manage risks and costs</td>
<td>● Relatively quick process</td>
</tr>
<tr>
<td>Evidence that consumers will embrace alternative business model that achieves these goals</td>
<td>● Online marketing/selling by the consumers seen as risky</td>
</tr>
<tr>
<td>● Including options without a buyer's agent paid via sales commission</td>
<td>● Disruption to agent-based sales motion will develop more slowly</td>
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Hybrid model likely to increase in the near term:

- Commission-based model of seller representation and marketing
  - Optional reduced commission paid by the seller to his/her broker only
- Seller relies on online services
  - Plus optional fee-based buyer's agent
http://research.stlouisfed.org/fred2/series/HOSMEDUSA052N
Agent Use By Buyers & Sellers Remains High

- 88% of buyers purchased their home through a real estate agent or broker
  - Most want help finding right home
  - Benefited from help understanding the process
  - High importance on honesty and integrity
- 88% of sellers were assisted by an agent
  - Help market home
  - Sell w/in specific timeframe
  - Help price home competitively
  - Reputation and honesty and integrity important
Real Estate Online Media Portals

Real Estate Discount Brokers

Online Real Estate Service Facilitators

Brokerage Firms

Buyer

Buyer Advisor

does research, places bids, pays for specific services

Seller Advisor

Seller

uploads listing information, finds service providers, pays for specific services

Appraisers

Escrow/Title Co.

Inspectors

Buyer

Seller

Appraisers

Inspections

Escrow/Title Co.

Real Estate Online Media Portals
Here is how the system works.

- **Mobile App Provider for Agents**
- **Service Provider for bidding**
- **Other Service Providers**
- **Listing Service Provider**

**Brokerage Firms** provides the infrastructure to agents.

- **Real Estate Online Media Portals**
- **Buyer**
- **Buyer Agent**
- **Seller**
- **Seller Agent**

Other Service Providers include: 
- **Service Provider for bidding**
- **Listing Service Provider**
- **Mobile App Provider for Agents**
- **Real Estate Online Media Portals**
- **Buyer Agent**
- **Seller Agent**