BRINGING DIGITALIZATION HOME SYMPOSIUM

Digitalization and the Incomplete Disruption of the US Housing Industry

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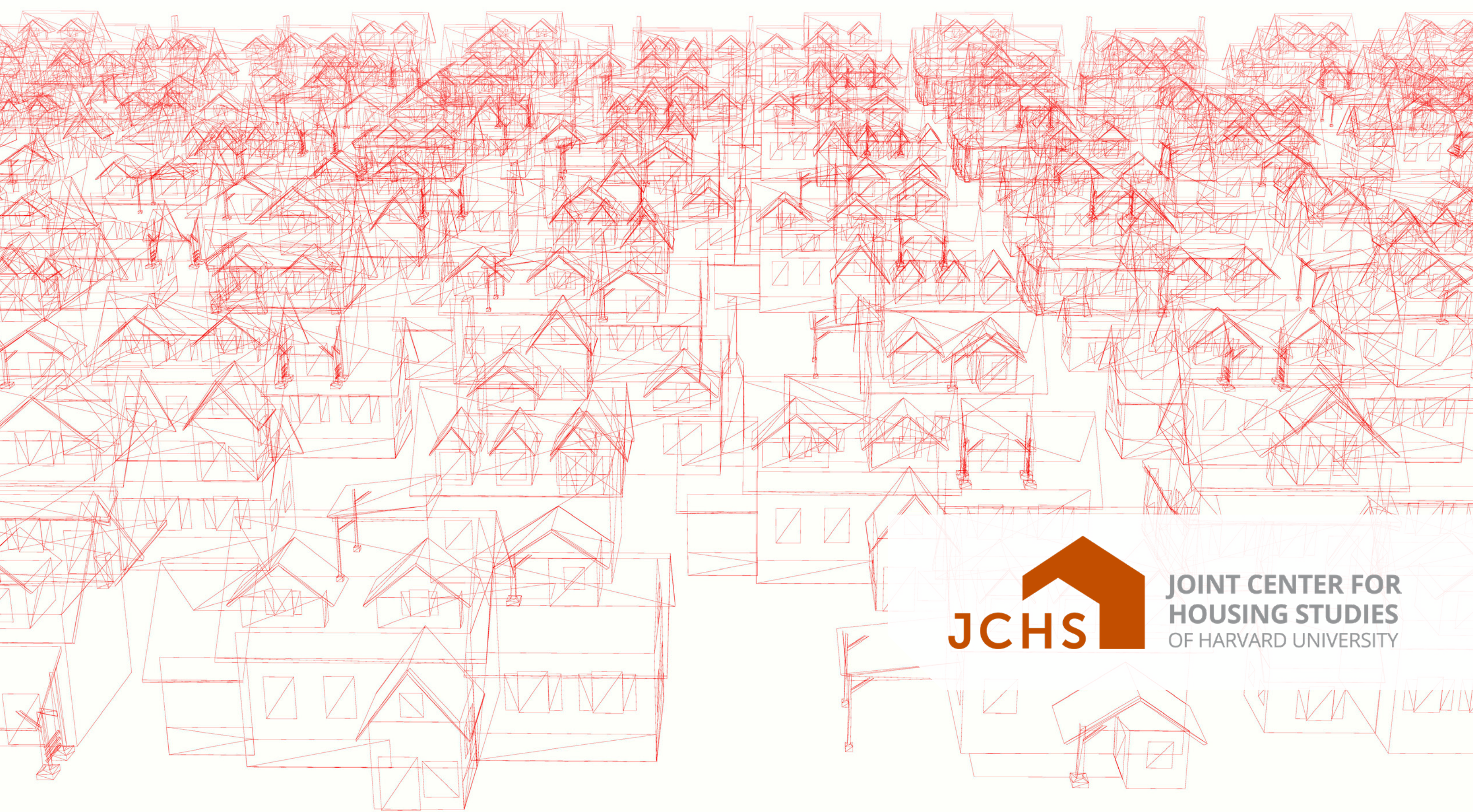

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Digitalization and the Incomplete Disruption of the US Housing Industry

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This paper was presented as part of "Panel 2: How Is Digitalization Changing Investments in Housing?" at the symposium "Bringing Digitalization Home: How Can Technology Address Housing Challenges?", hosted by the Harvard Joint Center for Housing Studies in March 2022 and funded by Qualcomm. Participants examined the changes that digitalization—the use of automated digital technologies to collect, process, analyze, distribute, use, and sell information—is spurring in the way housing is produced, marketed, sold, financed, managed, and lived in.

The system of sector housing investment and finance that has evolved in the United States has long had a powerful influence on the costs, type, and location of housing, given the dominant role of the private sector in the construction, ownership, and management of housing in the US. This commentary was prepared in reaction to two papers, presented at the *Bringing Digitalization Home* symposium hosted by the Harvard Joint Center for Housing Studies in March 2022, which each analyzed how digitalization was changing the residential real estate industry. The paper by Desiree Fields documents how digitalization and economic shifts have resulted in the rise of what she calls the "automated landlord," new firms that buy and hold large portfolios of single-family properties. Mike DelPrete's focus is on a set of new firms, backed by large amounts of venture capital (VC), which have shaken up the residential real estate world. These firms employ new business models such as using low fees instead of commissions to sell homes (fixed-fee agencies), buying homes directly from sellers using algorithms to set the price (iBuyers), or offering homebuyers novel financing options (power buyers).

In sum, Fields's and DelPrete's papers demonstrate how the entrance of new VC-backed and digitally savvy firms has resulted in changes in the real estate market, challenging existing real estate brokerages and landlords and shifting market power among firms. When Zillow Offers, a pioneering iBuying firm, closed in late 2021, many took it as a sign that the real estate industry was resisting digital innovation. However, both Fields and DelPrete argue that much deeper changes are afoot in the industry; that said, they point out that the Zillow Offers episode does show the limits of radically different business models. As DelPrete observes, the demise of iBuying means real estate agents are being disrupted by other agents, just those employed by different firms. Fields's automated landlords are disrupting other landlords. In both cases, the success of radically new business models has proven elusive even as markets are shifting in important ways.

The conclusion I draw from these papers is that the real estate industry is being disrupted in the sense that new firms, backed with venture capital, are entering the industry. However, the overall effect on the industry has been less disruptive than what digitalization has produced in other economic sectors. The remainder of the commentary will discuss some of the unique qualities of housing as a commodity that has made disruption so difficult, before turning to broader research and practice questions sparked by this examination of the industry's evolution.

Why Is It Hard to Disrupt Housing?

Why has the residential real estate industry been hard to disrupt? I will offer two reasons, one drawn from DelPrete's paper, and another from my own perspective.

First, DelPrete suggests that the psychology of real estate transactions may be one reason. Whereas in other markets, new apps which facilitated buying services with greater speed and convenience rapidly found market share (think Uber), these attributes are less important for buying a home, due to the magnitude and complexity of the decision. As a result, DelPrete suggests that “an instantaneous real estate transaction may be a solution in search of a problem.” Christensen’s theory of disruptive innovation argues that one way disruptive innovations achieve success is by providing value to customers that was not appreciated by existing business models.[1] DelPrete argues that the assumption that speed and convenience will allow new firms to gain market share may be flawed. For such a complex transaction, buyers may value the advice and knowledge of an agent.

Second, another reason disruption has proven elusive relates to the unique qualities of housing as a commodity. In economic theory, markets are liquid and efficient when they are based on similar goods, since the more similar the goods, the less buyers and sellers need to exchange information, consult with experts, engage in negotiation, and so forth. Housing clearly does not fit this definition well since by definition, each housing unit has a unique history and location. Even small differences in location can make a big difference in value: one side of the street may be fine; the other is in a flood zone. Units that are identical at the time of construction diverge based on the decisions of their owners and occupants. As a result, even superficially similar older homes may have different values, if, for example, one has had lead paint and asbestos removed and new wiring installed, and the other does not. Of course, these differences can be accounted for in automated decisions if they are represented in data, but most of them are not. I think this is one reason that iBuyers and automated landlords have both targeted the Sun Belt. This region’s rapidly developed generic suburban housing seems to minimize variation across units and facilitate automated, data-driven decision-making. However, I suspect that the forces of differentiation are at work there, posing challenges to anyone relying on data alone to analyze, value, and sell homes.

From Disruption to Progressive Platform Urbanism

Although I could continue musing about the real estate industry, I do not teach in the business school; I am an urban planner. Historically, the planning field has been involved in regulating, cajoling, and collaborating with the real estate industry to address market failures and pursue public goals. Many cities where planners work, such as Detroit, have very weak real estate markets. When my students

[1] Clayton M Christensen, *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail* (Harvard Business Press, 1997).

analyze mortgage-lending data, they discover there are only tiny numbers, often in the single digits, of mortgage loans in many Detroit tracts, versus dozens and dozens recorded in similarly sized tracts in wealthier parts of the region. I have done some research on eviction, and have found emerging evidence that commercial landlords are more likely to move quickly to eviction, with detrimental impacts on the members of those households, who are often children.[2] I have been encouraged by the broader reframing of evictions in our society in recent years; this has produced unprecedented assistance to vulnerable renters during the pandemic.

Turning then towards the other topics this symposium addresses, I will leave you with several questions that I am focused on:

1. What is the empirical evidence for the impact of these changes? Research is emerging in many areas of housing scholarship, such as whether Fintech lenders may lend more equitably, but the changes are fast-moving and I am not aware of anyone who's attempted a synthesis of this work.[3]
2. What promising alternative models exist, especially those that foster longstanding goals for sustainability, fair housing, and racial equity? If conventional firms neglect urban areas, how might alternative platform models, such as crowdfunding or collaborative housing like Australia's Nightingale Housing, be scaled up to produce more equitable cities?[4]
3. How are new firms challenging or hardening traditional boundaries of inclusion and exclusion, and how can we ensure new models are available to diverse communities and not only to improve lives for the privileged?

It's obvious that major changes are afoot in the residential real estate industry, and the papers by Desiree Fields and Mike DelPrete provide us with useful insights and analysis to better understand these changes. Like in many other spheres, it is also obvious that novel business models produced by digitalization produce new and different mixtures of benefits and problems. The housing community is only just beginning to grapple with these changes and leverage the potential for digitalization to produce more sustainable and equitable cities.

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[2] Elora Lee Raymond et al., "Gentrifying Atlanta: Investor Purchases of Rental Housing, Evictions, and the Displacement of Black Residents," *Housing Policy Debate* (2021); M. Desmond et al., "Evicting Children," *Social Forces* 92, no. 1 (2013).
[3] Tyler Haupert, "The Racial Landscape of Fintech Mortgage Lending," *Housing Policy Debate* 32, no. 2 (2022).
[4] Andréanne Doyon and Trivess Moore, "The Acceleration of an Unprotected Niche: The Case of Nightingale Housing, Australia," *Cities* 92 (2019); Robert Goodspeed, "Are We in the Era of Platform Urbanism?," http://goodspeedupdate.com/2021/4061.

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