Digital Geography 7 (2024) 100109

Contents lists available at ScienceDirect

Digital Geography and Society

journal homepage: www.sciencedirect.com/journal/digital-geography-and-society

Housing disruptions: Six conceptual entry points for analysing the digital transformation of housing and home

1. Introduction

In recent capitalist times, few corporate buzzwords have been overused as comprehensively as 'disruption'. The rallying cry of platform businesses and venture capitalists, disruption encapsulates the promises of the digital to displace arcane, dysfunctional and unjust systems and offer in their place a new world of efficiency and democracy. Whether takeaways, taxis, hotels or healthcare systems, we are constantly told that tech corporations will transform life as we know it. The changes will be sudden, and they may involve an element of destruction. But ultimately, we are led to believe, this will be in service of progress.

If you were looking for an imminently 'disruptable' area of economic activity, housing would not be the obvious choice. Housing systems are, for one, grounded in the physicality of land, and the deeply embedded ideologies, institutions, customs, and power relations that control it (Shepherd & Wargent, 2024). Unlike other commodities, as the classical political economists would hasten to point out, land is spatially fixed and limited in supply. As an asset, landed property is hugely clunky, sticky, illiquid and complex. The purchase and selling thereof generally involves considerable time and debt. Land and housing are incredibly particular to local cultures and institutional frameworks. Understandings of appropriate typology, size and tenancy, to name but a few attributes, vary greatly by local, sub-national and national histories and traditions. Housing is subject to innumerate layers of national and local regulation, from planning law and policy, through tenancy and property law, to taxation and finance. This all makes any digital regime hugely challenging to scale and systematise in geographical, social and regulatory terms.

Yet whilst we can (and will) critique the concept of disruption, in recent years housing systems have undoubtedly been comprehensively reshaped at the intersection of technology and finance. From exchanging and investing in residential assets (Dal Maso, Rogers, & Robertson, 2019; Fields, 2022), to securing a room in a flat share (Maalsen, 2022a, 2022b, 2022c; Shrestha, Gurran, & Nasreen, 2023; Meers, 2024), to managing and operating homes themselves (McElroy, 2018), you would be hard-pressed to find a part of the housing process that has not been reconfigured by digital deployments. Within academia, these are often wrapped under the umbrella term 'platform real estate', whilst within industry they more often go by the guise of 'Proptech'. These terms describe the constellation of practices, artefacts and ideals involved in the digital transformation of land and property, including via algorithms and artificial intelligence (Faxon, Fields, & Wainwright, 2024).

Digital disruption in housing markets has gone hand-in-hand with state-facilitated financial disruption. In particular, following the 2008 global financial crisis, the processes of financialisation, assetisation and rentierisation have resulted in new forms of consolidation and extraction that have ruptured and up-ended housing systems (Nic Lochlainn, 2023). The burgeoning private rental sector across many major cities has become a site of particularly intense experimentation for financialised actors, and digital tools have come to play a central role in the rentier strategies of global corporate landlords (Nethercote, 2023). The combination of rapid advancements in tech, and the ever-growing quest for revenue-generating residential assets, has resulted in new manifestations of deep-set injustices and biases (Wainwright, 2023). Far from democratising housing, Proptech has more often served to reinforce the long-standing structural inequalities embedded within land and property markets (Fields, 2024; Migozzi, 2024a).

But new technologies are increasingly being leveraged in service of housing justice. In particular, recent years have seen the radical application of digital tools for consolidating tenant power and advocacy, including via partnership building and research McElroy (2024). Digital technologies are also being deployed with the explicit purpose of drawing attention to the harmful effects of platform real estate, such as discrimination (Wolifson, Maalsen, & Rogers, 2024).

It is easy to dismiss disruption as a hollow signifier that serves largely to justify or obfuscate capitalist exploitation. No doubt, this is part of the story. But in this special issue, we return to the idea of housing disruptions as a conceptual tool for interrogating both the productive and pernicious effects of digital transformations in housing. The special issue arose from a set of workshops held online in the summer of 2021 at the height of COVID-19. These brought together scholars from across the world studying different manifestations of housing disruption. This was a time of particularly rapid acceleration and development in the sphere of 'Proptech', as real estate actors scrambled to find ways of continuing business as usual in an online, socially-distanced world.

Amid incessant claims across business, media and academic circles that housing as we know it was being revolutionised by the digital, the goal of the special issue was to drill down on what, exactly, this disruption entails. We felt that there had only been limited conceptual engagement on the nature of disruption itself; whom or what is being disrupted, and whom or what is doing the disruption. In fact, many studies of the digital had simply moved past the idea of disruption all together, dismissing it as an industry term with little analytical import. Through its international, interdisciplinary contributions, a central question the special issue grapples with is the extent to which new technologies and disruptive logics are actively reshaping housing systems versus simply accelerating, exacerbating, exploiting and making

https://doi.org/10.1016/j.diggeo.2024.100109

Available online 5 December 2024

visible existing processes. In other words, are these disruptions actually 'disruptive', and if so, in what ways?

2. Six conceptual entry points for digital transformations in housing and home

In this editorial, we point to six conceptual entry-points that can be used to analyse digital transformations in housing and home. In summary, the first is to examine disruption as a discursive and ideological process. This process is necessarily future-oriented, and is framed by a sense of urgency combined with a utopian faith in the inevitability of technological progress. As a tech business and venture capitalist buzzword, disruption represents an ideology that is let loose on real events, peoples and places. Its discursive intent and purpose is to *break apart* and destroy what exists to allow a new set of actors, markets and accumulation strategies to venture in and exploit anew. If we accept that disruption is a discursive and ideological device, the second conceptual entry-point allows us to hone in on disruption as an empirical fact, i.e., if and how the digital has enacted meaningful change in housing systems. Housing systems are undoubtedly being reconfigured at the intersection of new technologies, financial practices and rentier logics, and unpicking the nature and extent of disruptive activity can be a productive analytical strategy.

Third, digital disruption in housing markets does not occur in a policy vacuum, and in many cases the penetration of digital technologies into housing systems has gone hand-in-hand with state-facilitated financial, regulatory, and other changes. Here, both regulatory action and inaction can be productive sites of analysis. Local, state and federal policy environments, especially those that regulate the financial and development sectors, land use and urban planning, tenant and landlord rights and responsibilities, provide the enabling conditions that tech businesses exploit. These disruption-enabling environments are often targeted by tech, finance and property development industry organisations, calling for smaller states, less regulation, and more competition (read, monopolistic capitalism). Fourth, the burgeoning private rental sector itself, and its development and use of technology specifically, is a critical field for analysis in this space. In major cities across the world, this sector has emerged as a site of particularly intense activity for large financial and technology actors, with, for example, digital deployments increasingly featuring in the rent extraction strategies of powerful real estate players.

Fifth, disruption often operates as a distraction that keeps the longstanding structural causes, effects and discriminations out of sight and out of mind. While we are seeing a layering of rentierisation, assetisation, financialisation and digitalisation on top of old and new discriminations in many cities around the world, these forces and process are rendered less visible under the discursive rubrics of innovation and disruption. Finally, sixth and more optimistically, disruption can also as operate as a progressive politics, which we have termed the disruption duality. Thus, we can look for the progressively disruptive in our cities, such as grassroots organisations working to expose the way the state is implicated in the rise of Proptech, as well as the pernicious effects of these digital technologies for local, state and federal communities. Zooming in on these entry points, in the remainder of this editorial we trace the lineage of disruption in business speak and practice, before examining its complicated relationship with housing systems via the special issue contributions.

3. Decoding disruption

Disruption is a term that is widely used but rarely specified – a 'signifier that has floated free of its original conceptual mooring', Hogarth (2017, p.258) laments. Its etymology can be traced to the Latin *disrumpere*, which combines dis- ("apart") and rumpere ("to break") (Merriam-Webster, 2021). At its core, the term signifies a level of destruction, i.e., to break apart, an association that, as we will explore, remains central to its deployment in the neoliberal context.

Disruption was popularised in its contemporary business and marketing usage by Harvard Business School management guru Clayton Christensen. In his influential 1997 book 'The Innovator's Dilemma', Christensen developed a theory of 'disruptive innovation'. This describes 'a process by which a product or service takes root in simple applications at the bottom of the market… and then relentlessly moves upmarket, eventually displacing established competitors' (Christensen Institute, 2024, no pagination). Associating disruption with innovation and novelty, Christensen and other management scholars embraced Joseph Schumpeter's theory of 'creative destruction', in which capitalist transformation is driven by a 'process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one.' (Schumpeter, 1942, p.83). There is a clear sense of urgency, inevitability and aggression in this notion of progression: relentless and incessant.

As Geiger (2020) argues, the emergence of disruption in management thinking and practice has its roots in theology. Schumpeter's work centred around the figure of the entrepreneur who possesses 'a will to found a private kingdom' and 'the will to conquer: the impulse to fight' (Schumpeter, 1934, p.93). The theory of creative destruction was heavily influenced by Friedrich Nietzsche, a key inspiration for whom was the figure of Shiva: destroyer of the universe. Hence, in Geiger's reading, at the heart of the capitalist imaginary of disruption are religious overtones of destruction and creation, or 'eschatologies': 'notions of the end of time and the beginning of a New Kingdom' (Geiger, 2020, p. 170).

Disruption has a distinctly neoliberal zeal, embodying a familiar gospel of market fundamentalism, small government and individualism (Hogarth, 2017). Implicit within it is the supremacy of the consumer within the marketplace, who possesses a form of moral authority over the economy, free from the state and other institutions in their consumption choices (Geiger, 2020). The figure of the disruptor-entrepreneur is a hyper-individualised one – single-handedly taking on the world, every *man* for himself. Disrupt or be disrupted. Embedded within the notion of disruption is also a suspicion of government and regulation, framed as a hinderance to technological advancement. The implication is of a slow and unresponsive bureaucracy that serves to protect industry incumbents from the 'full brunt of unfettered market competition' (Hogarth, 2017, p.261). To return to the theological, in her seething critique of Christensen's disruptive innovation theory, journalist Jill Lepore (2014) argues that the 'faith in disruption' in contemporary capitalism is 'what happens when the invisible hand replaces the hand of God as explanation and justification' (Lepore, 2014, no pagination).

In its close association with Silicon Valley, the notion of disruption is inseparable from technological determinism. As Barbrook and Cameron argue in their seminal 'The Californian Ideology', technology firms harness the language of inevitability to suggest that interference with technological innovation is paramount to defying the 'primary laws of nature', a discourse appealing to both radical and reactionary notions of technological progress (Barbrook & Cameron, 1996, p.6). Chiming with this framing, the notion of disruption fuses sentiments of radical social change with an unadulterated faith in technology as emancipatory; a vision that, for Barbrook and Cameron, 'depends upon a wilful blindness towards the other – much less positive – features of life on the West Coast: racism, poverty and environmental degradation' (p.2). As Barbook and Cameron would attest, the ideology of disruption has a deeply problematic relationship with the past. Blind to history and continuity, it implies a sudden break in the status quo. As explored in recent work on Proptech, this is a particular oversight when it comes to land and property, which is inseparable from longstanding social structures and relations (Fields, 2024; Safransky, 2020).

The notion of disruption is not, however, simply ideological and discursive. It embodies a set of commercial and accumulation strategies. In particular, it is closely associated with venture capital: the primary source of financing for platform corporations. Venture capital is defined by a quest to rapidly achieve scale and market dominance whilst suspending the need to turn a profit. It is a 'move fast and break things' form of capitalist experimentation that involves decoupling financial value from business fundamentals (Cooiman, 2024; Kampmann, 2024). As Langley and Leyshon (2017, p.14, 15) argue, venture capitalists 'target dominance of their own niche market infrastructure, at the expense of others who are therefore destined to fail' – seeking to 'extract rents from their network which are, in essence, monopoly rents'. As a general rule, three out of every four VC-funded start-ups are expected to fail (another popular tech discourse), but the 'home runs' are expected to be of such a magnitude that they compensate for these losses (Liu, 2017).

The modus operandi for venture capitalists is building hype around and scaling a start-up to maximise its valuation before, ideally, selling it off to large corporates or via an initial public offering. As Kampmann (2024, p.45) argues, in this space, 'business model narratives' geared around 'technology fetishism' are 'crucial for capitalist entrepreneurs and investors to rationalize and anticipate corporate profits'. The 'disruptive' promises of technology are absolutely central to this valorisation process (Hogarth, 2017). Importantly, the story of venture capital dispels the myth of 'disruption from the bottom up' dominant in framings of platform corporations. Far from plucky outsiders, actors with sufficient capital to continue fuelling loss-making start-ups are resolutely part of the capitalist furniture. As Peters (2024) has shown, the rise of venture capital was predicated from the very beginning on 'vast accumulations of (personal) wealth', with VCs playing a key role in channelling the capital of elites from the 1950s onwards (p.1). Far from left-of-field, brave underdogs disrupting the world for the greater good, venture capital firms have been instrumental in reproducing privilege and inequality, particularly during times of capital abundance (ibid). There are new property-specific VCs launching weekly, including a recently established arm of the real estate services company Jones Lang LaSalle called 'JLL Spark', who has adopted the tagline 'Think big. Disrupt. PropTech' (Spark, 2024).

In all, what can we understand about the ideology of disruption given its deeply capitalistic lineage in business thinking and strategy, and its adjacency to the fictitious world of venture capital and Silicon Valley start-ups, and similar start-up clones around the world? At the outset, it is fair to say that disruption is synonymous with a degree of destruction. Embedded within it is the idea of upheaval and chaos – a 'language of panic, fear, asymmetry, and disorder', as Lepore (2014, no pagination) puts it. Antithetical to understandings of incremental progress and advancement, it signifies a sudden rupture in the established order. There is a naive or purposeful disregard for the past; an effort to naturalise beliefs and practices congenial to narrow prescriptions of social problems. It is resolutely future-oriented, with a sense of urgency and a utopian sense of inevitability. As part of this, there is a distinctive recklessness, ruthlessness, even remorselessness to disruption. Yet to view disruption as purely ideological also misses the point, disruption is an ideology let loose on real events, peoples and places. It embodies a mode of capital accumulation centred around aggressive expansion and fictitious valuation. With this in mind, in what follows we tease out how disruption manifests in the housing context – both within this mode of capitalist thinking and practice, and 'from below' via advocacy and contestation. Additionally, we are left with the question of whether 'disruption' is actually happening in any meaningful way in the housing context, or if instead Proptech is simply digitalising, intensifying and obscuring existing processes and structures.

4. The enabling conditions for housing disruption

Housing disruptions do not appear out of nowhere. They exist because of shortfalls and contradictions in the system. There are resonances here with Maalsen's use of the hack (Maalsen, 2022a; Maalsen, 2022b), the 'practice of working around problems and offering alternative solutions' to the residential status quo (p.164). This is a process that works within the constraints of existing systems and emerges because of existing flaws. Just as there would be no need, nor opportunity to hack if everything was working, there would be no need to disrupt if the housing system was working well for all parties. We note here that of course many argue that the housing system is working as intended, as a market that has been design to generate profit for some that the expense of others.

Nic Lochlainn's (2023) contribution, for example, speaks to this disruption-enabling environment by focusing on the foothold corporate landlords were able to gain in post-crash Dublin. This article considers how speculative real estate capital targets and profits from what Maalsen (2023, p. 169) describes as 'moments of disruption [which] arise at weak points in the system'. Specifically, Nic Lochlainn introduces the idea of disruptive consolidation as a conceptual tool for interpreting how Dublin's rental sector is being reshaped by corporate investors, pointing to the 'interplay between international financial actors and their efforts at strategically investing in and reshaping the profit potential of private rental sector housing' (p.1). Nic Lochlainn demonstrates how this process is increasing rental affordability pressures, disempowering tenants, and fostering socio-spatial segregation. Similarly, for Nethercote (2023) and Shrestha et al. (2023), the increasing power of corporate landlords and platform rental firms rests upon and drives the processes of housing financialisation and commodification, and the asymmetries and inequalities resulting therefrom. However, as explored below, disruptions can also emerge from collective organising, contestation and resistance against the injustices of capitalist housing systems – including pushing back against the 'disruptive' real estate platforms themselves.

5. The disruption duality

Housing disruptions can be both pernicious and progressive. While there is rightly a tendency in the literature to highlight the negative impacts of digital disruption, these tools can also be leveraged in service of housing justice. This disruption duality speaks to the notion of algorithmic harm versus algorithmic care (Maalsen, 2023), both of which are profiled in this special issue. For example, Shrestha et al. (2023) shows how the platformisation of share housing has transformed a previously informal segment of the housing sector into a globalised market. The authors demonstrate how platform corporations have commodified the social practices and relationships associated with home-sharing, leveraging network effects and user engagement to generate new forms of revenue. As a result, those in search of a room are now forced to 'compete to offer their own households on the global real estate market' (p.10). Nethercote (2023) turns her attention to corporate landlords in the build-to-rent sector. Approaching the corporate landlord as a rentier platform, Nethercote poses the emergence of 'double threat enclosure', where traditional property enclosure and rent extraction is combined with the digital enclosure of tenants and the extraction of data rents. Here tenants are made into techno-economic objects that are scored, sorted and stratified based on their data profiles. Nethercote argues that double threat enclosure has the potential to reconfigure landlord-tenant relations in such a way that exacerbates risks for renters.

Conversely, the special issue also draws attention to how Proptech can be leveraged in service of progressive housing initiatives. Pham (2024) for example discusses the entanglement of a care ethic in online public engagement platforms mobilised in the context of planning decisions. Here, there was a genuine desire to democratise public participation with the ambition of involving more voices in decision-making around planning proposals. Inclusivity, it was argued, could be fostered by the platform's ability to increase the reach and scale of consultation. While it remained unclear whether this initiative could deliver on its promises and disrupt existing institutional logics, Pham argues that the care ethic at the centre of the digital engagement approach reflects an effort to move away from staunchly neoliberal planning directives.

In another example, Wolifson et al. (2024) highlight both the potentially discriminatory nature of Proptech rental platforms and their role in supporting tenant advocacy efforts. Presenting a schema of rental Proptech, they identify five areas where digital tools can have discriminatory outcomes, but they also consider the opportunity these same technologies present for advocating for tenants and highlighting renter vulnerability. They profile projects such as the Anti-eviction mapping project (https://antievictionmap.com/) and the rental vulnerability index (https://rentalvulnerability.org.au/) as examples of platform-enabled alliance building, research and advocacy. Combined, these articles show how Proptech can be harnessed to advance housing justice – both from an industry-led position embedded with an ethic of care; and from an advocacy-led position, similarly with care ethics at its centre.

6. Disruption as distraction

Disruptions often serve as distractions. In particular, the disruption narrative obscures the fact that many of the practices included under this moniker build upon and intensify existing social structures and relations, including of class, race and gender (see for example Migozzi's, 2024a work on Proptech reinforcing geographies of racial segregation in post-apartheid South Africa). All the articles in this special issue speak in some way to this theme, highlighting how the digital mediation of housing often leverages longstanding property and power relations without necessarily enacting any progressive structural reconfiguration of these already discriminatory housing systems. Indeed, this is one of the critiques of the hack, in that it can only tinker within the constraints of existing systems rather than catalyse an immediate structural overhaul. Yet as Migozzi (2024b) reflects, whilst it is crucial to keep sight of the *longue durée*, it is also key that the novelty and distinctiveness of digital experiments in property are teased out. In this regard, the special issue pays particular attention to the interplay between age-old and emerging capitalist logics and strategies in housing systems.

White's (2024) paper on digital experiments in rent extraction in the co-living sector, for example, illustrates how corporate platform models reproduce existing rentier practices. The contribution shows that digital technologies are reshaping the rental sector firstly by increasing real asset profitability via spatial surveillance and dynamic pricing, and secondly by establishing forms of techno-economic enclosure from tenants via housing memberships and subscriptions. The latter allows the provider to extract revenue beyond the limits of tenancy and location. Whilst in many ways these experiments are simply about deepening and extending long-standing landlord-tenant dynamics, they also reflect efforts to transcend them.

What is perhaps most novel, then, and can be seen across many of the articles in this special issue, is the layering of digital and real estate rentierism: the way that housing disruptions are pushing and extending the logic of rent to new spaces and activities (Madden, 2024). While the practices may build on existing rentier relations, they present opportunities for new streams of revenue from residential processes and arrangements. Wolifson et al. (2024, 2) describe this as the combining of landed assets and rents alongside Proptech's own valuation as technological and data assets (see also Birch & Ward, 2024; Madden, 2024; Shrestha et al., 2023; Nethercote 2023; Fields, 2022). In Nethercote's (2023) paper we also see this dynamic in the conceptualisation of double-threat enclosure in the build-to-rent sector, where institutional investors mobilise renters' personal data to extract value from their assets. What's actually new, Nethercote argues, is how 'platform logics make data and data rents increasingly central to the socio-technical operation of corporate landlords (p.12).

7. Conclusion

Are housing disruptors disruptive? In this editorial we have critiqued the idea of disruption while also drawing on the papers in this special issue to consider if and how disruptive logics and practices are transforming housing. We point to six key conceptual entry points for understanding digital transformations in housing and home: disruption as a discursive and ideological process; disruption as an empirical fact; the enabling conditions for disruption; the centrality of private rental housing to disruptive activity; how disruption distracts, and; progressive disruptions for housing justice. In particular, we argue that disruption is of analytical import for unpicking the flaws and contradictions of housing systems, for highlighting the progressive and pernicious potential of digital deployments, and for questioning the degree and manner of change occurring. Rather than sudden ruptures in the established order, we more often see the continuation and expansion of existing capitalist relations, albeit with some novel applications. We are careful not to discount these disruptions, however, and believe it is important to pay attention both to the potentially harmful and care-oriented practices described above. First, because not taking these seriously can have implications for property relations, the market and regulatory interventions as we have seen with other rapidly scaled platform corporations such as Uber and Airbnb (Maalsen, 2023). Second, discounting them merely as distractions also risks ignoring the potentially creative and positive alternatives they provide – the more progressive applications of digital tools also discussed in this SI. In all, we argue that it is important not to be dazzled or distracted by digital disruption and highlight the importance of engaging with these disruptions critically. In particular, a critical understanding of housing disruptions necessitates interrogating what or who (if anything) is being reconfigured and transformed, and in what or whose interests. We believe the selection of articles in this special issue is a good place to start with such work.

Declaration of competing interest

None.

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