

# Digital Disruption in Commercial Real Estate

SHIFTING PARADIGMS & A HEIGHTENED PACE OF  
OBSOLESCENCE

**How We Live: On the Road**

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This article is the second in a series discussing the disruptors that are remaking commercial real estate and will impact how we live, work, play, invest and build.

Rather than thinking about technology as a defensive, isolated disruption of commercial real estate, we need to contemplate technology in the context of a disruptive framework and consider how technology and accelerated change will impact the built environment. Being strategic and applying the research will prove key in evaluating the demand for real estate, the impact of technological change, and potential sources of disruption to how we live.

## How We Live

We live in a digital world regularly disrupted with the emergence of evermore clever, complex technologies. Rapid changes in consumer demand, reflected by demographics and the ready accessibility of technological innovations, are requiring constant connectivity in conflict with the demand for work-life balance. Whether or not we are aware of it, artificial intelligence (AI), in particular, is transforming how we live in tangible ways. We engage with technology throughout each day and are becoming more reliant on it. As AI enables computer systems to perform tasks that once required human intelligence, our visual perception is now changing, we are using speech recognition and instant language translation, we're enhancing our neural techniques to learn and create, and are experiencing actual AI decision-making and overall intelligent automation, often in real time.

## On the Road

IoT is disrupting transportation. IoT (Internet of Things) is the interconnection via the Internet of computing devices embedded in everyday objects, enabling them to send and receive data. Over the next several decades, we can expect to see a population migration to urban centers.<sup>1</sup> Ride-sharing and car-sharing services, which appeal to a younger generation that either doesn't want to own a car or doesn't drive and an older generation that may no longer be able to drive, will result in a reduced need for parking structures at multifamily buildings, office buildings and retail facilities, and in commercial business districts (CBDs). This reduced infrastructure requisite will free up space for the development of more residential facilities and service offerings. And for those who require their own space-saving transportation, the Ujet Scooter, introduced at the 2018 Consumer Electronics Show, is a foldable electric scooter that can travel up to 28 miles per hour and is recharged via a normal electric outlet.

We are in an entirely new era of mobility where technology is modernizing and ameliorating the daily commute, improving transportation logistics, and streamlining multimodal transportation to deliver people and goods far faster and more cost efficiently. Improved transportation is reshaping how we live. Stoplights embedded with sensors enable greater communication between traffic lights to ease traffic jams. Pittsburgh, just one example of a city utilizing innovative technology, now has nine traffic signals that use artificial intelligence to react to traffic conditions to keep cars moving. Smart lights reduce travel time by 25 percent, braking by 30 percent and idling by more than 40 percent.<sup>2</sup> Transportation network companies (TNC), also known



as mobility service providers (MSP), pair passengers via mobile apps with drivers who provide services, creating a sharing gig economy that Uber and Lyft have already mastered. But now there is an added twist, these ride sharers have implemented even more cutting-edge technology, whereby the users' phone sensors, including the GPS, accelerometer and gyroscope, detect if anything is amiss and can sense an impending accident. These safety features will also "reach out" to see if a customer is safe if the vehicle idles too long.

Ride-sharing services are reshaping first and last-mile transportation, providing greater access to public transportation and improving mobility. The entire delivery ecosystem of people (and goods) is being altered.

1. Alec Scott: <https://www.theglobeandmail.com/report-on-business/rob-magazine/the-future-is-smart/article24586994/#cities>.

2. Adina Solomon, "A New Smart Technology will Help Cities Drastically Reduce their Traffic Congestion," <https://www.pastemagazine.com/articles/2017/04/a-new-smart-technology-will-help-cities-drastically.html> (April 7, 2017).

In partnership with the South Australian government and the City of Adelaide, Cisco is piloting a project utilizing IoT technology that will set up sensors in Adelaide's CBD. The sensors will gather intersection traffic information, and track the location and speed of vehicles and pedestrians. The technology will help determine how traffic lights can be reprogrammed, which is especially critical as autonomous vehicles come into use.<sup>3</sup> Technology will help in smart city efforts to maintain sustainability and quality of life as metropolises become larger and more densely populated. London and Oakland, California, are already testing systems that report air quality levels in their cities.

In a hyper-connected world, people will be able to live farther in more affordable outlying areas. We can literally look up for other traffic solutions. The very ambitious and much anticipated Pod Taxis (Personal Rapid Transit PRT), soon to be tested in Gurgaon, India, will carry passengers high above city streets along a ropeway. And then there is personal rapid transit (PRT), a public transportation mode featuring small, automated vehicles operating on a network of specially built guideways.<sup>4</sup>

## Looking to the Future

How does the real estate industry adjust and how do operators rise to the challenge of digital change and its impact on the human experience? On a basic level, multifamily buildings will incorporate smart home systems to accommodate day-to-day living. Even as the senior population continues to increase, fewer nursing homes may be needed as the elder population opts for assisted living facilities and fully integrated smart homes. Suburban projects will become more accessible as traffic congestion eases and drivers become passengers with tech taking the wheel. The shifting paradigm and digital disruption in commercial real estate are forcing a heightened need to embrace technologies that will drive economic growth, support social and business interaction, and attract best-in-class occupiers. The challenge will be in selecting and investing in technologies that raise the bar in the commercial property built environment. We must embrace technologies and digital opportunities or face obsolescence.

### ABOUT THE AUTHOR:

Linda J. Isaacson has long been recognized as a compelling and an authoritative voice in the real estate industry. [READ FULL BIO](#) ▶

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3. Parul Dubey, "IoT Technology to Reduce Traffic Congestion," <https://informedinfrastructure.com/36789/iot-technology-to-reduce-traffic-congestion/> (Feb. 5, 2018).

4. Anjali Bisaria, "13 Incredible Inventions That Will Power The Future And Change Our Tomorrow For The Best," <https://www.indiatimes.com/technology/science-and-future/13-incredible-inventions-that-will-power-the-future-and-change-our-tomorrow-for-the-best-275894.html> (April 18, 2017).



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