

**PropTech and Real Estate Disruption (B8341)****Fall 2023**

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Real estate accounts for about 2/3 of real assets around the world. The real estate sector is ripe for change, being famous for its historical lack of capacity for deep and continuing innovation. The internet, cellphones, and ability to collect and process big data have enabled a boom in technology-based solutions applied to nearly all areas of real estate. Driving this investment explosion is the evolution of real estate tech from its initial phase of software and marketplaces complementing the incumbents to a new era where tech enabled players are going head to head against the sector's largest incumbents (e.g., commercial landlords, lenders, brokerages, developers) and consuming massive amounts of investor capital as they scale. As challengers mature into leading players, we are entering a new phase in the evolution of real estate technology. Underlying this huge transformation is a clash of generations. Many of the startups and solutions that disrupt the traditional operation of real estate are both driven by and aimed at millennials and Gen Z. The COVID-19 pandemic that significantly disrupted the real estate sector has further accelerated these trends.

The purpose of this course is to introduce students to the recent disruptions in the real estate industry and provide them with an understating of the economic rationale driving such solutions. A large part of the course will focus on *PropTech* that refers to businesses using technology to disrupt and improve the way we buy, rent, sell, manage, construct, and design residential and commercial properties. We will also discuss the effects of COVID-19 pandemic on the real estate industry and how it is likely to disrupt the real estate industry in the longer-term. The covered topics will including real estate big data business models, real estate fintech (on-line marketplaces both in residential and commercial space, on-line lending platforms, iBuying, crowdfunding, real estate and blockchain), shared real estate, smart real estate including energy efficiency and real estate climate tech, construction tech including modular construction, and real estate venture capital investing in proptech.

The class is aimed to help future consumers of disruptive technologies in managerial roles in the real estate industry (e.g., better streamlining of operations; real estate management software; better analytics and valuation). The class insights can also help students make better real estate investment and development decisions for the future, including the development of or investment in disruptive technologies and applications.

Classes will focus on discussion and analysis of assigned cases, readings, and topical lectures. Guest speakers will be introduced to provide first-hand experience in the opportunities and challenges and of businesses focused on disrupting the real estate sector. The grade will be determined by assignments including cases, final paper, and class participation.