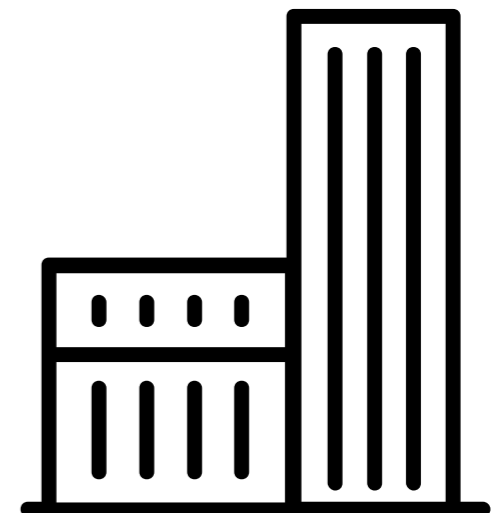


DON'T THINK OF A BUILDING.

Understanding Technology's Threat to Real Estate Owners, Operators, and Asset Valuations.

by Dror Poleg, January 2017



Introduction

Real estate developers, owners, and operators are under threat from new types of competitors. Valuations, predicated on recurring rent and traditional defenses, are undermined by new business models and revenue channels.

These dynamics are already obvious in retail and hospitality and are increasingly visible in urban residential and office markets. Changes to the way we live, work, and travel are transforming real estate design, usage, funding, and yield management.

This deck provides an overview of emerging consumer behaviors and business models and examines their potential impact on the asset class.

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Changes to the way people live and the nature of work.

2 Emerging Business Models

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3 Industry Responses

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4 Broader Implications

The impact on the industry's structure and profits.

5 What can you do?

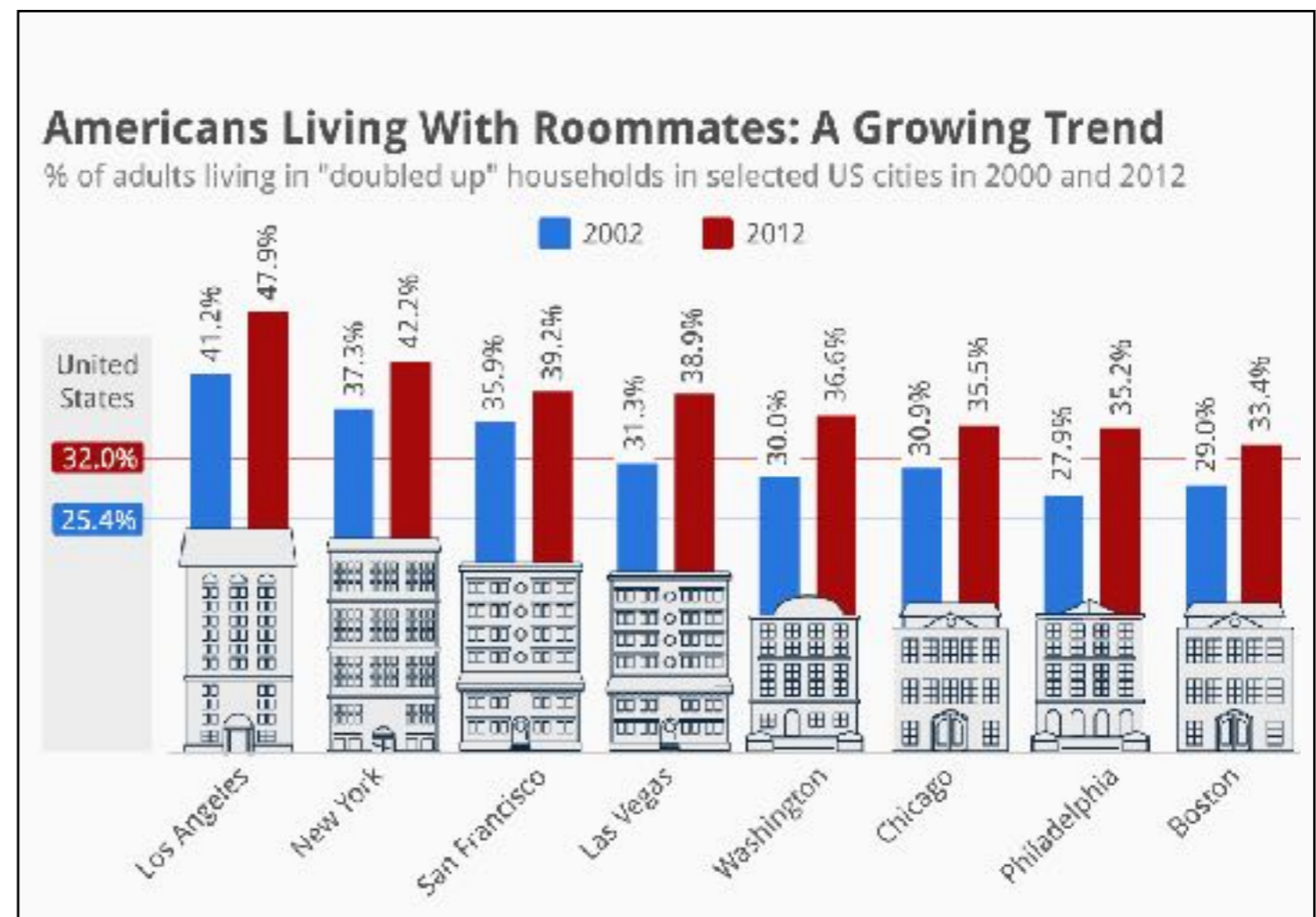
10 Guiding principles.

Socio-economic Trends

An increasing number of people are living alone, often as a permanent lifestyle choice. Many are living with roommates into their 30s and even 40s for reasons that are not purely economic.

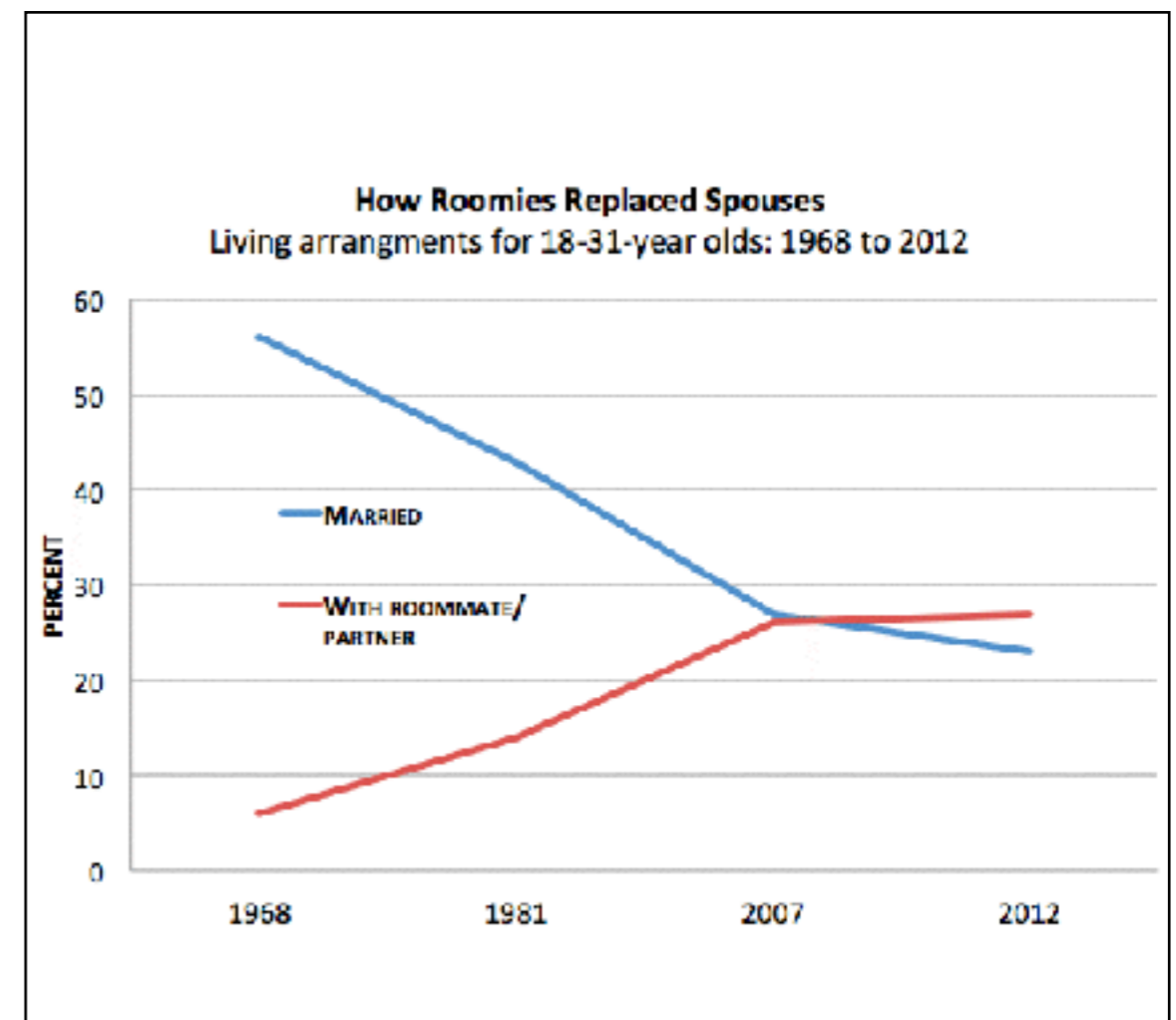
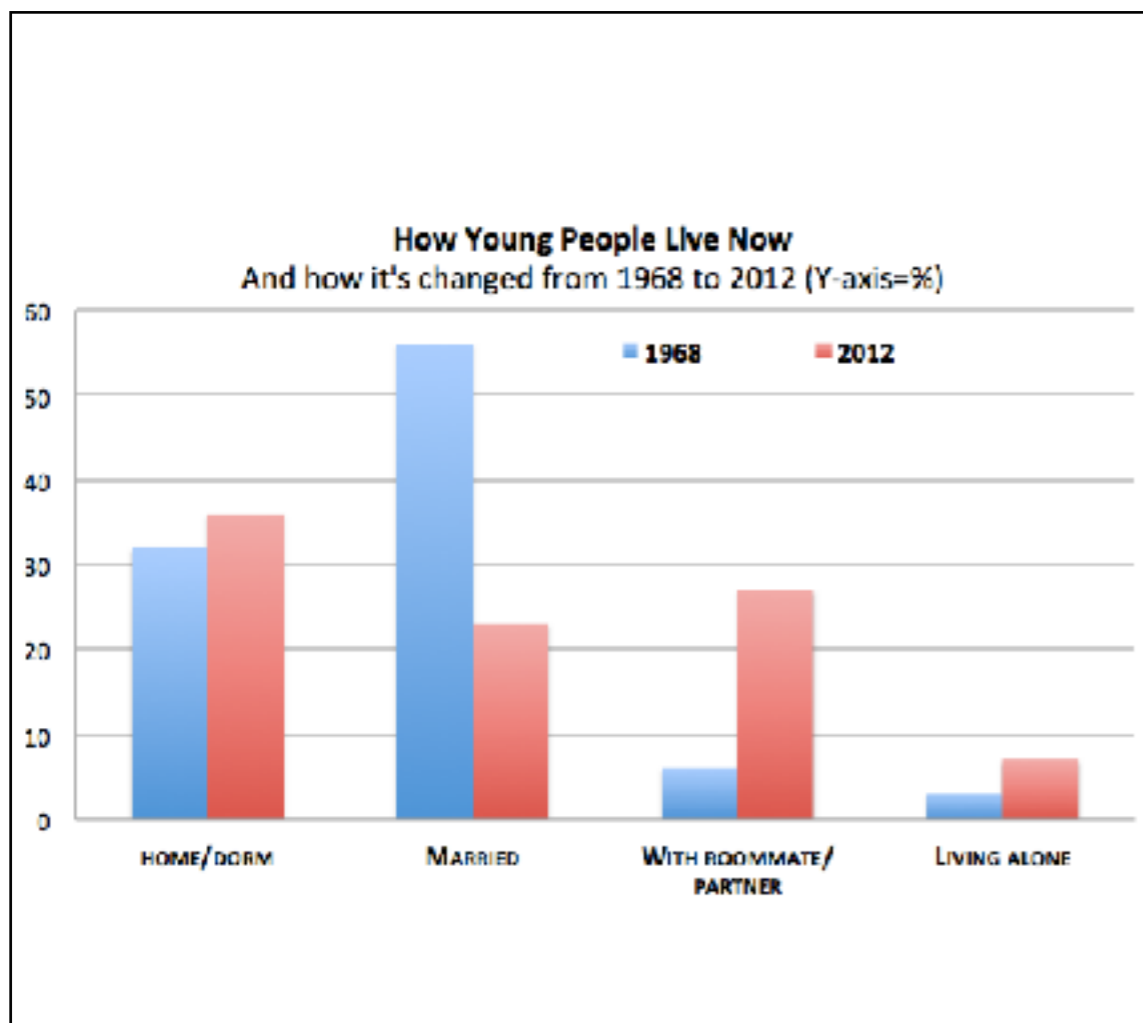


Source: [Fortune / US '10 Census Data](#)



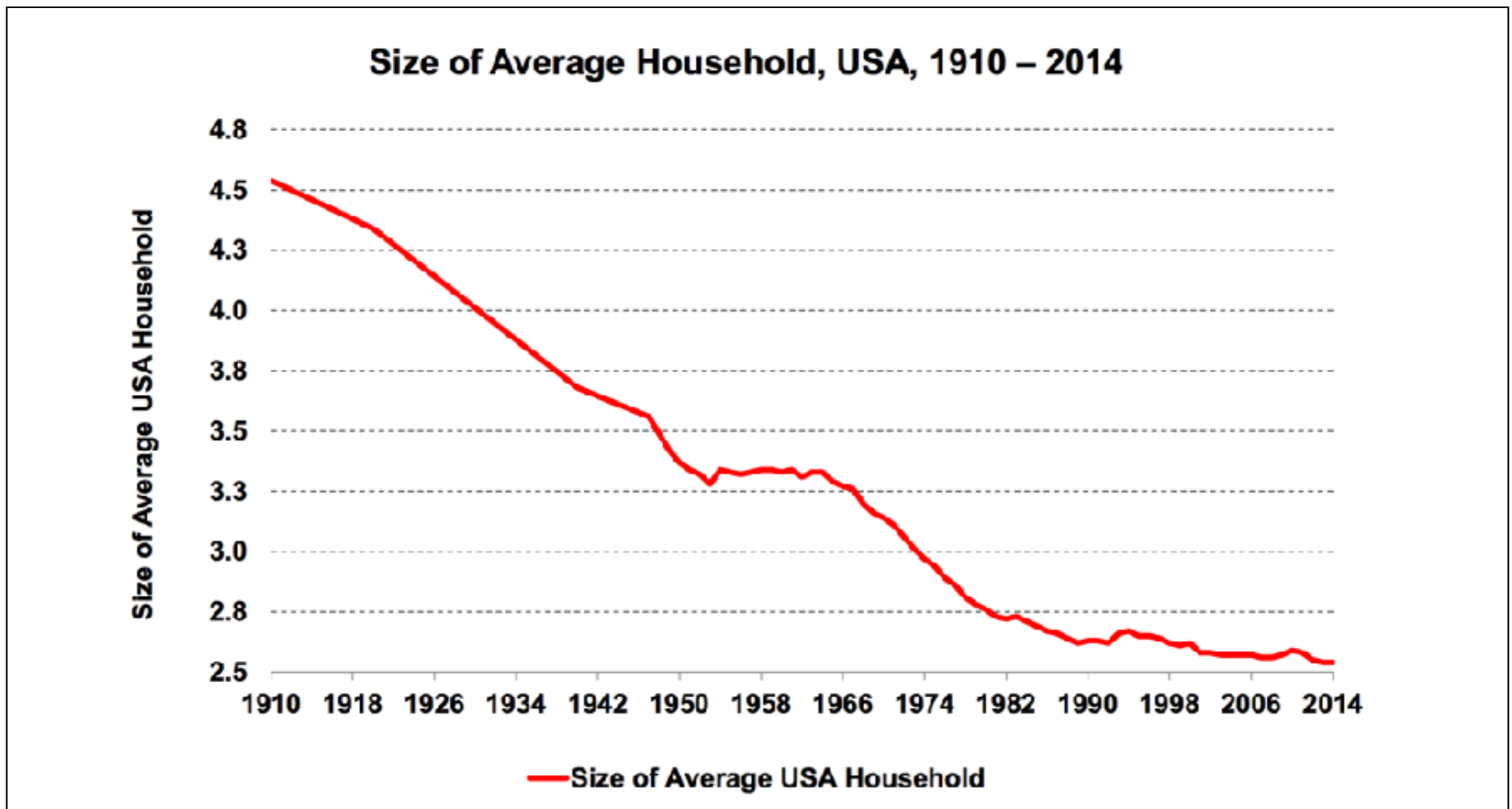
Source: [Zillow / Statista](#)

More people stay single for longer, in many cases indefinitely. Roommates, coworkers, and online friends replace spouses as life partners.



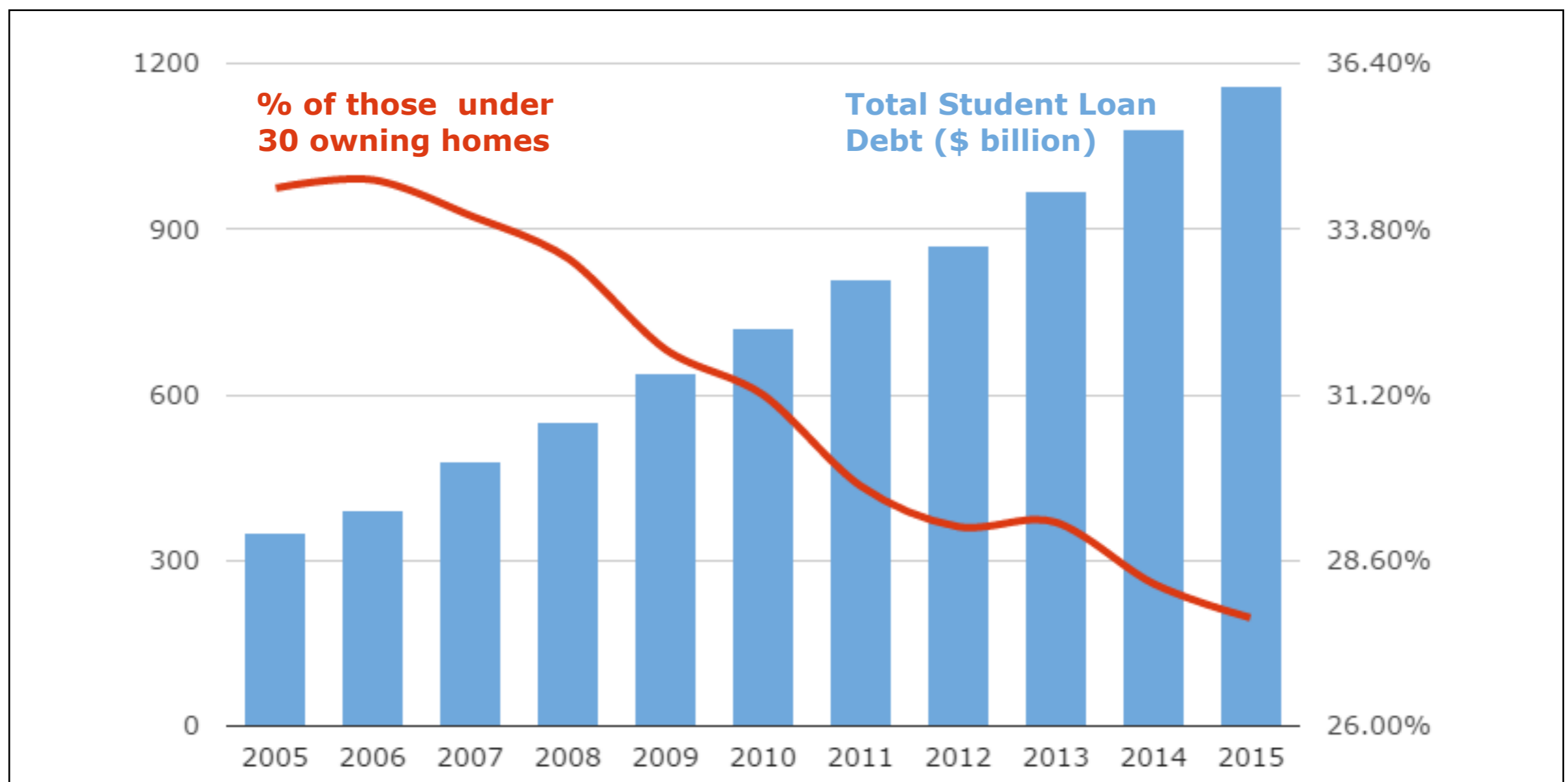
Source: [The Atlantic / Pew Research](#)

The average number of people per household is declining — from 4 people 100 years ago to 2.5 today.



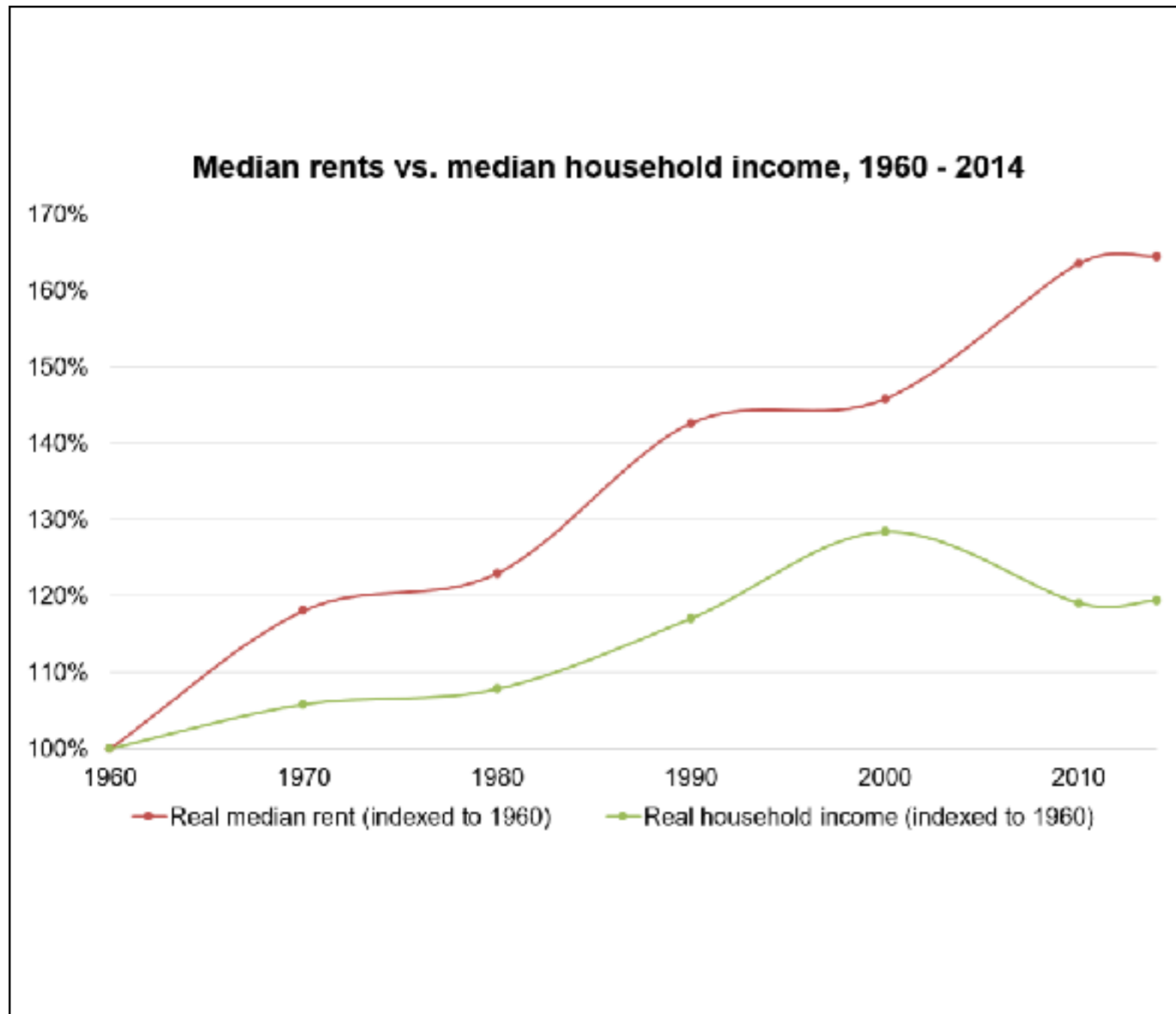
Source: [Kleiner Perkins / US Census Bureau](#)

Home ownership is at a historic low, especially for those under 30. Coupled with high student debt and low savings, this leads to the emergence of “Generation Rent”.



Source: [New York Federal Reserve / Census.org](#)

Rent is outpacing income growth, encouraging people to live with roommates.



Source: [US Census Bureau / ApartmentList](#)

	Current Fraction of Income Spent on Rent
United States	29.5%
New York, NY	39.5%
Los Angeles, CA	46.9%
Chicago, IL	31.2%
Dallas, TX	27.4%
Philadelphia, PA	28.2%
Houston, TX	28.4%
Washington, DC	27.2%
Miami, FL	43.2%
Atlanta, GA	24.5%
Boston, MA	33.1%
San Francisco, CA	40.7%
Detroit, MI	23.9%
Riverside, CA	35.8%
Phoenix, AZ	25.8%

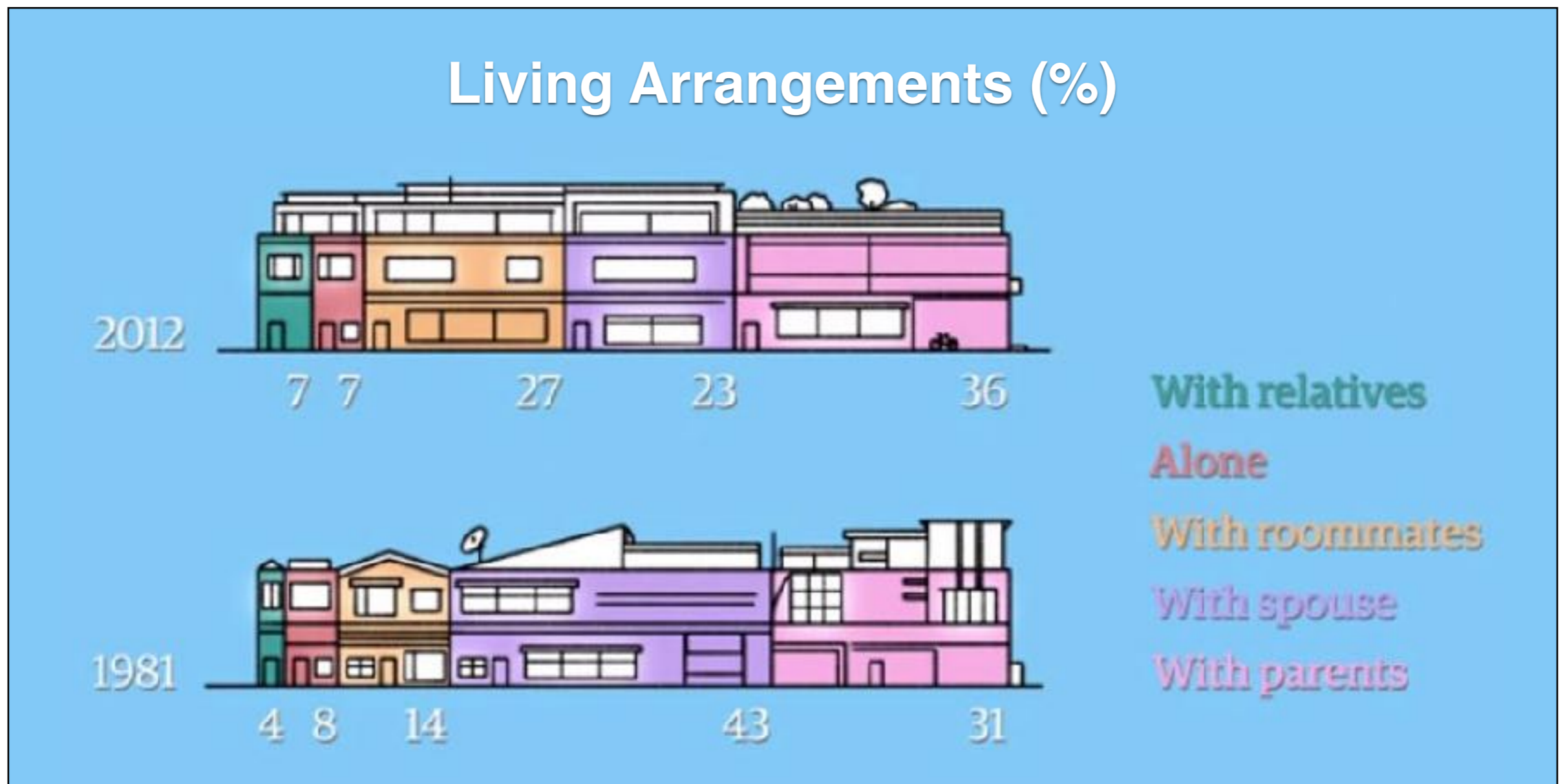
Source: [Zillow](#)

In big cities, sharing an apartment can lead to dramatic savings.

Best "2-bed" cities	Yearly Savings	Worst "2-bed" cities	Yearly Savings
1. New York, NY	\$7,238	1. Little Rock, AR	-\$330
2. Pasadena, CA	\$5,616	2. Wichita, KS	\$227
3. Irvine, CA	\$5,425	3. Aurora, CO	\$327
4. Anaheim, CA	\$5,163	4. Lubbock, TX	\$517
5. Portland, OR	\$4,730	5. Phoenix, AZ	\$797
6. Nashville, TN	\$4,613	6. Glendale, AZ	\$864
7. Fremont, CA	\$4,554	7. San Francisco, CA	\$921
8. Virginia Beach, VA	\$4,414	8. Tucson, AZ	\$1,029
9. Atlanta, GA	\$4,268	9. Louisville, KY	\$1,274
10. Norfolk, VA	\$4,211	10. Honolulu, HI	\$1,293

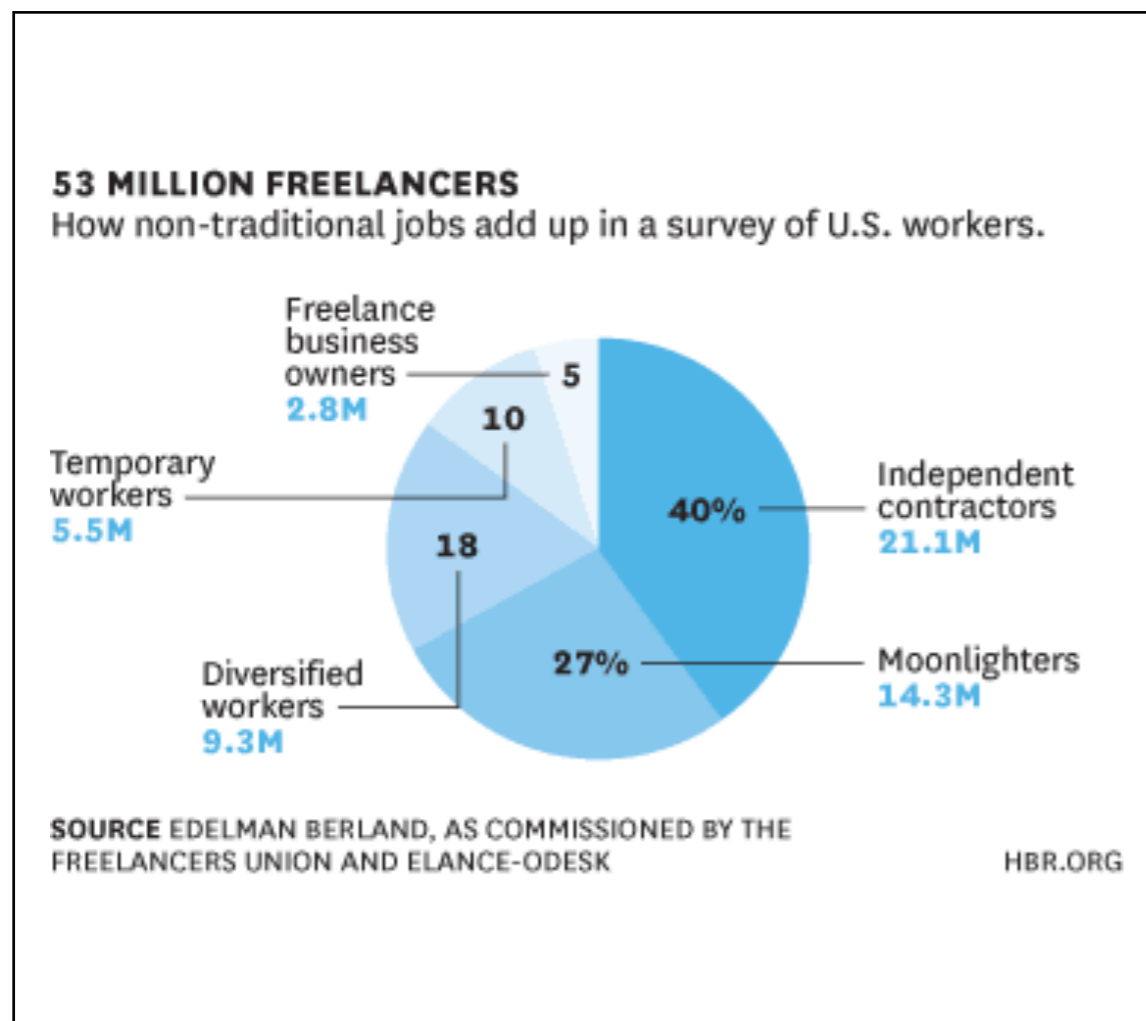
Source: [Forbes](#)

The number of 18-35-year-olds living as roommates had almost doubled over the last 30 years.

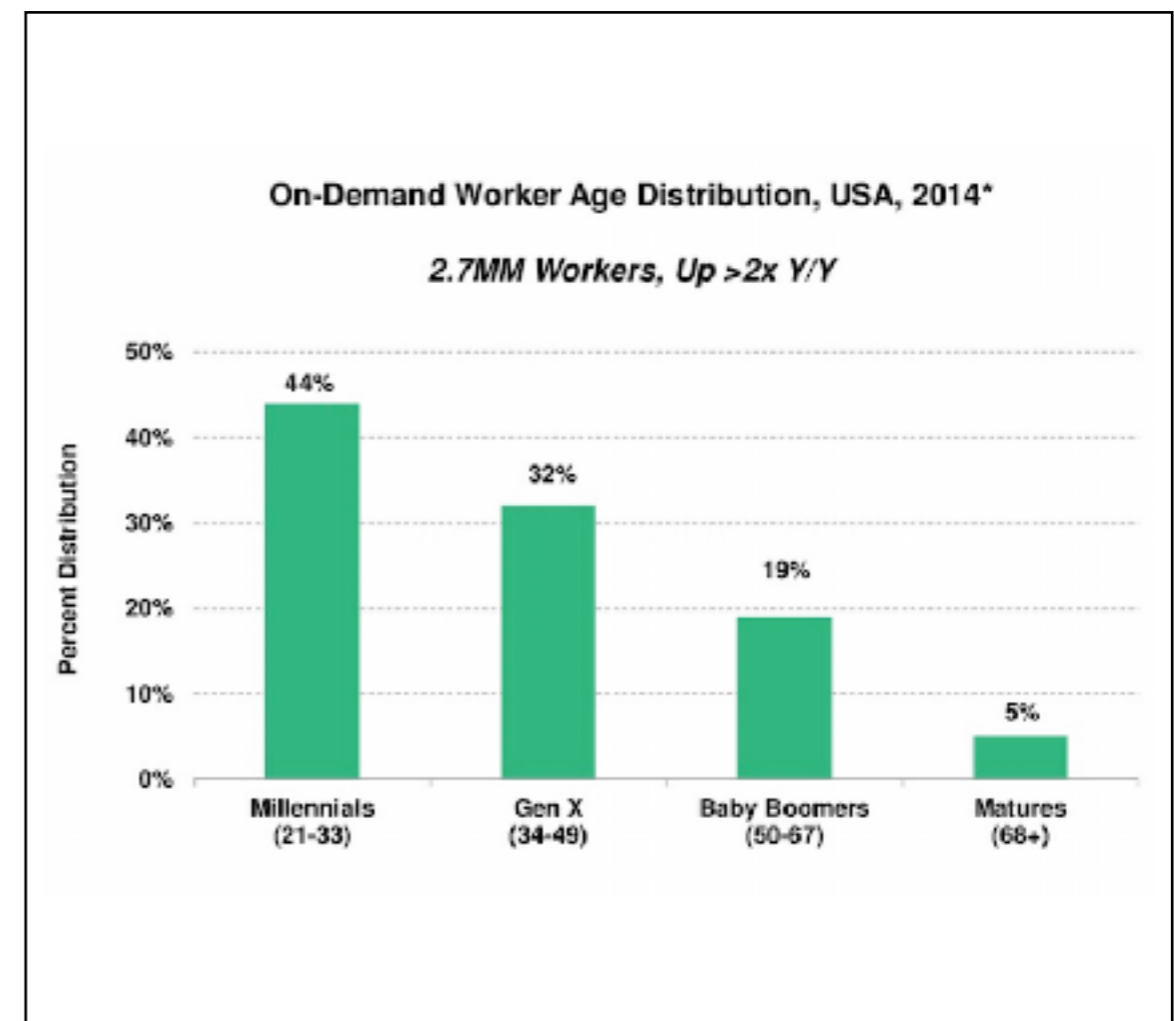


Source: [Forbes](#)

Jobs are less stable and many knowledge workers have more than one. Freelancing and contract work are on the rise.

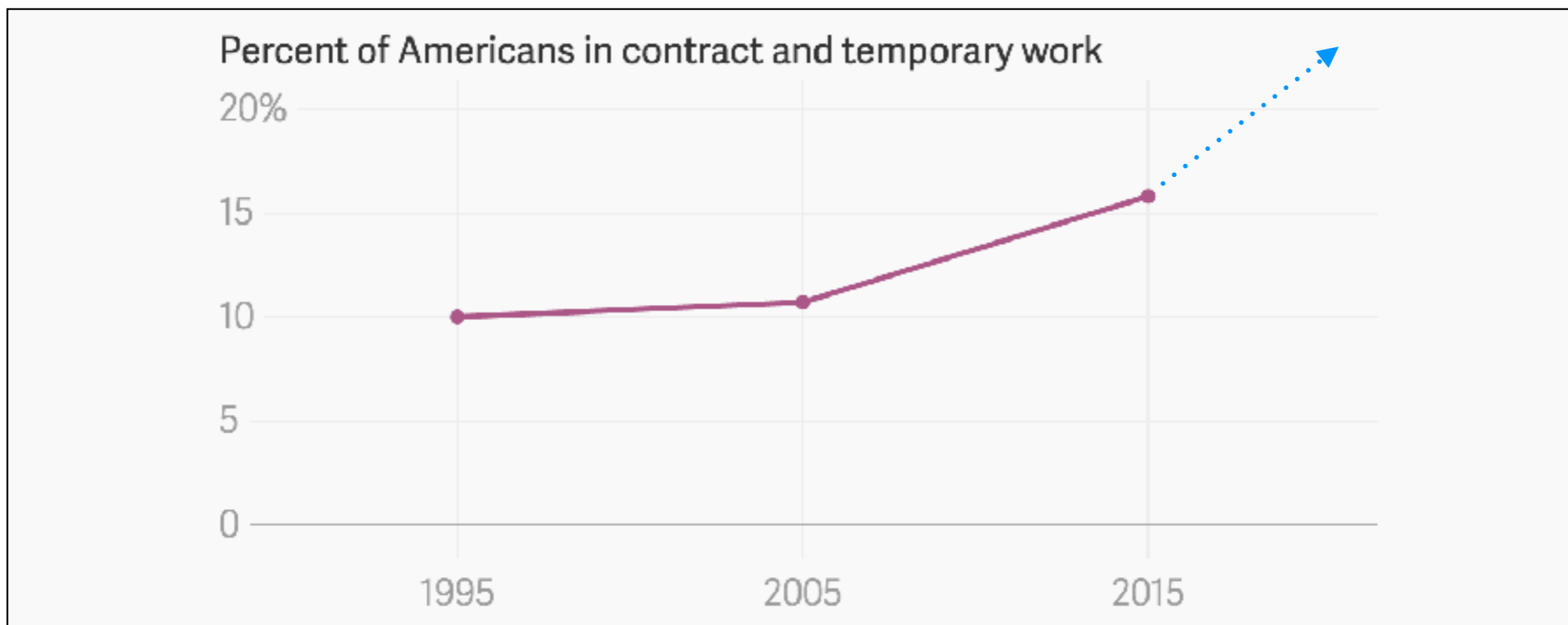


Source: [Harvard Business Review](#)



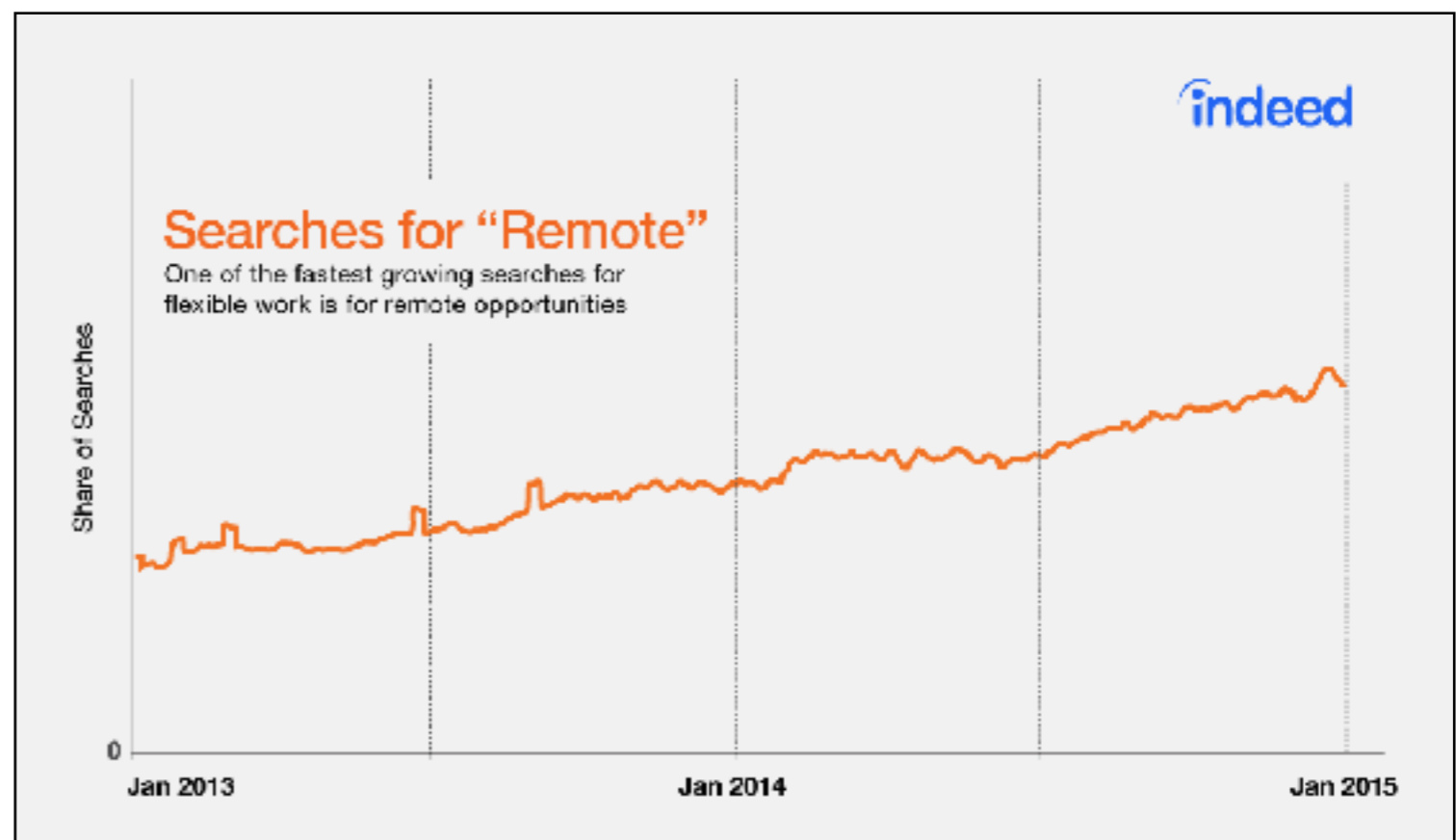
Source: [Kleiner Perkins](#)

A recent study found that from 2005 to 2015, the proportion of American workers engaged in temporary or unsteady work jumped from 10.7% to 15.8%. **Nearly all of the 10 million jobs created between 2005 and 2015 belong to this category.**



Source: [Princeton University / Krueger & Katz](#)

Tens of millions of people are working away from the office. Many lead “location-independent” lives — working anywhere from NYC coffee shops to the beaches of Bali.



Source: [Wall Street Journal / US Census Bureau](#)

Source: [Indeed.com](#)

The boundaries between work, play, and travel are blurring, as freelancers and employees from developed countries spend months or years working in exotic destinations.

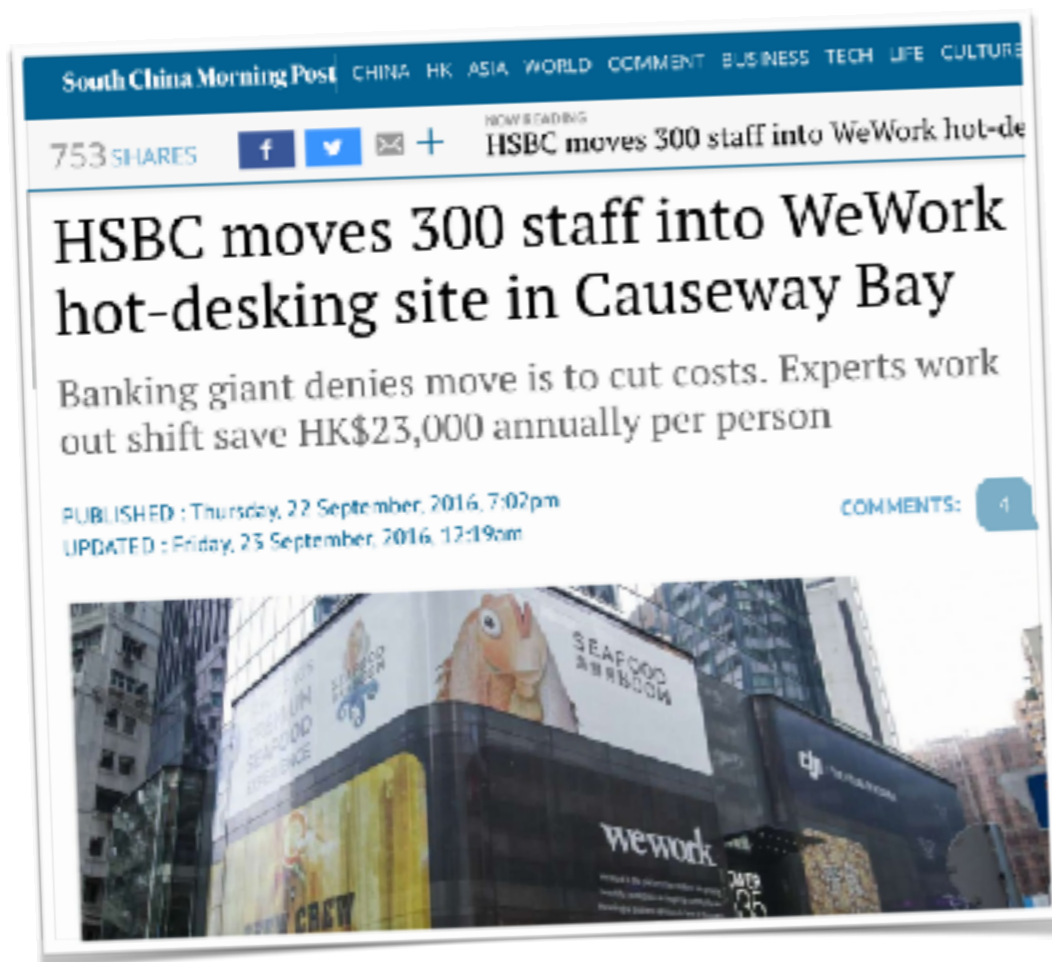


Source: [Outsite](#)



Source: [Coboat](#)

These lifestyle choices are no longer limited to freelancers and social mavericks: A growing number of large companies allow their employees to spend significant periods away from the office as a way to retain talent and encourage interaction with the “real world”.

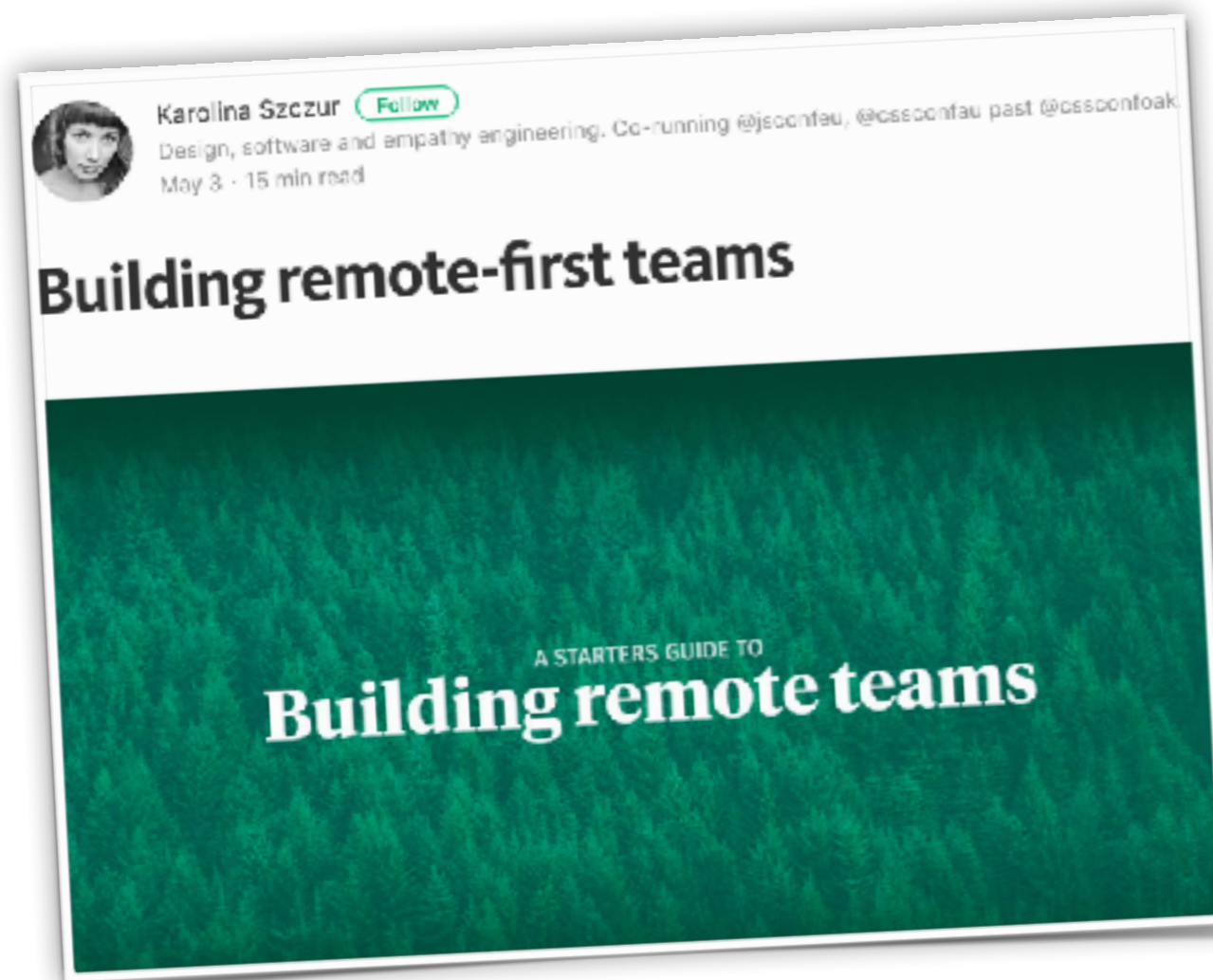


Source: [SCMP](#)



Source: [Bloomberg](#)

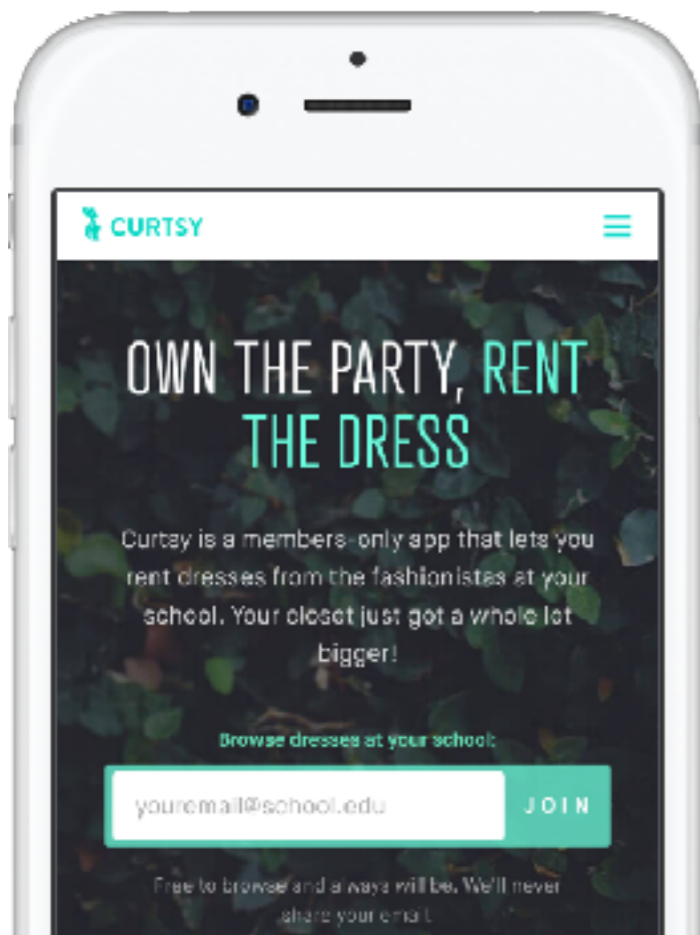
More and more companies are built from day one as diffuse organizations, employing hundreds of people without a central office.



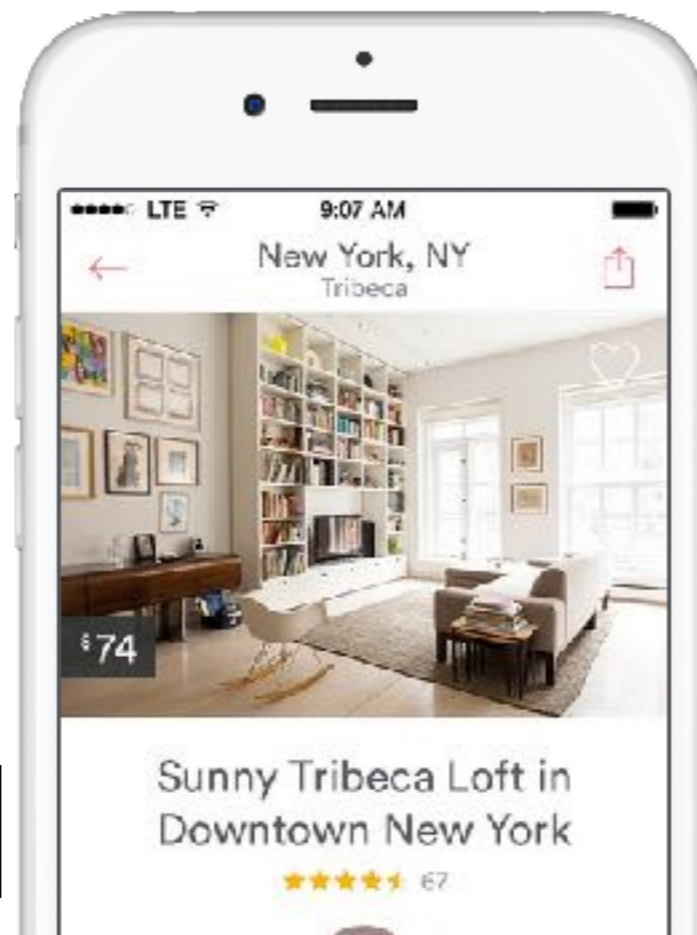
Source: [Medium](#)

This fluid environment drives young consumers to prefer “experiences” to “things”: Sharing everything on-demand rather than owning anything outright. This logic applies to anything from housing, through cars, to clothing and work tools.

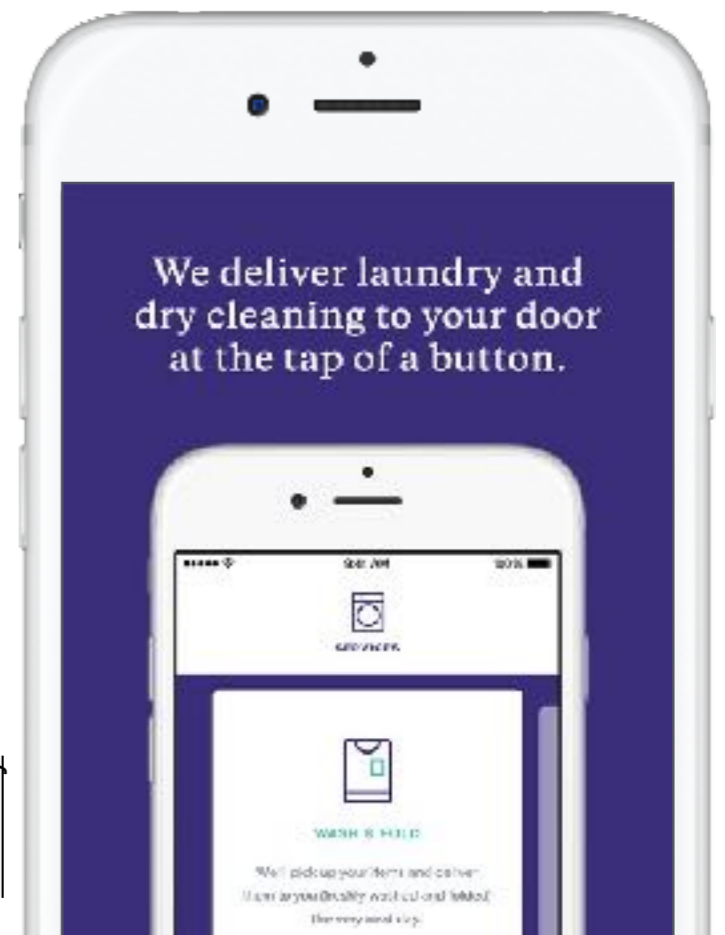
Curtsy App



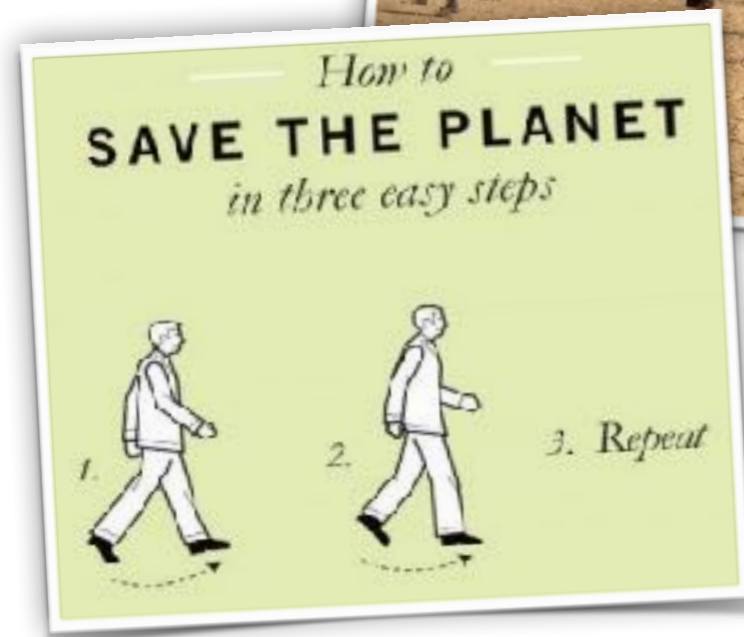
AirBnB



Cleanly



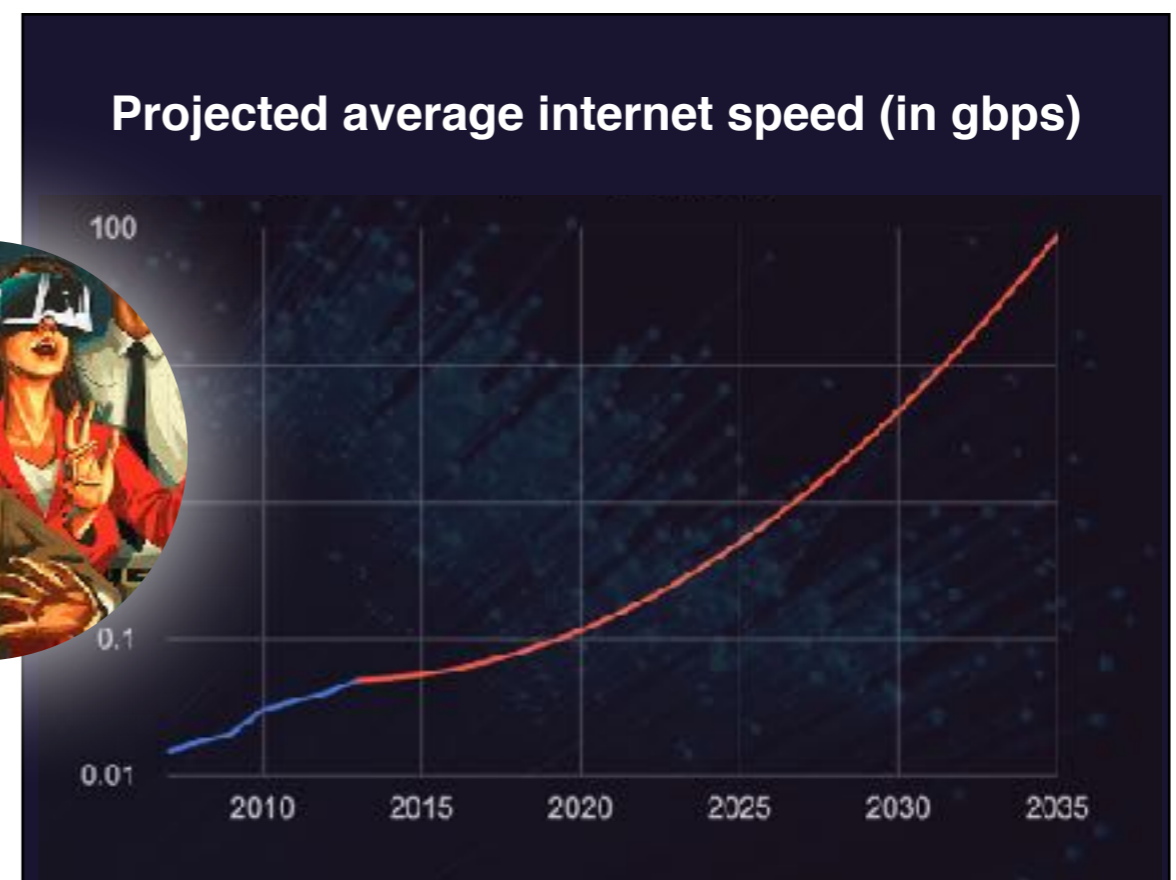
The “shared” lifestyle choice is sustained and reinforced by new ways of signaling value or virtue — emphasizing care for the environment, anti-corporatism, personal freedom, and the search for authenticity.



Source: [Green Energy Times](#)

Source: [The Atlantic](#)

Meanwhile, the adoption of new technologies and advances in existing technologies are expected to continue to diminish the importance of physical location and redefine the meaning of social interaction.



Source: Levels.io

Image: Variety

Key Takeaways

- ▶ End-users are less likely to own or even sign long-term leases for apartments or SMB offices — can't afford it, don't want to commit, and prefer to pay based on usage
- ▶ The practical importance of location is diminishing — people can work anywhere
- ▶ The symbolic role of location as a way of signaling status or value is changing — “working in a third-world country is cooler than working in Manhattan”
- ▶ Private living spaces are increasingly about function — a place to sleep (alone) between “experiences”
- ▶ Public spaces (such as shared offices or residential amenities) are increasingly about meaning — sources of community, platforms for signaling virtue, and sites for exploration
- ▶ Physical spaces should aspire to be as modular and as changeable as their end-users

Emerging Business Models

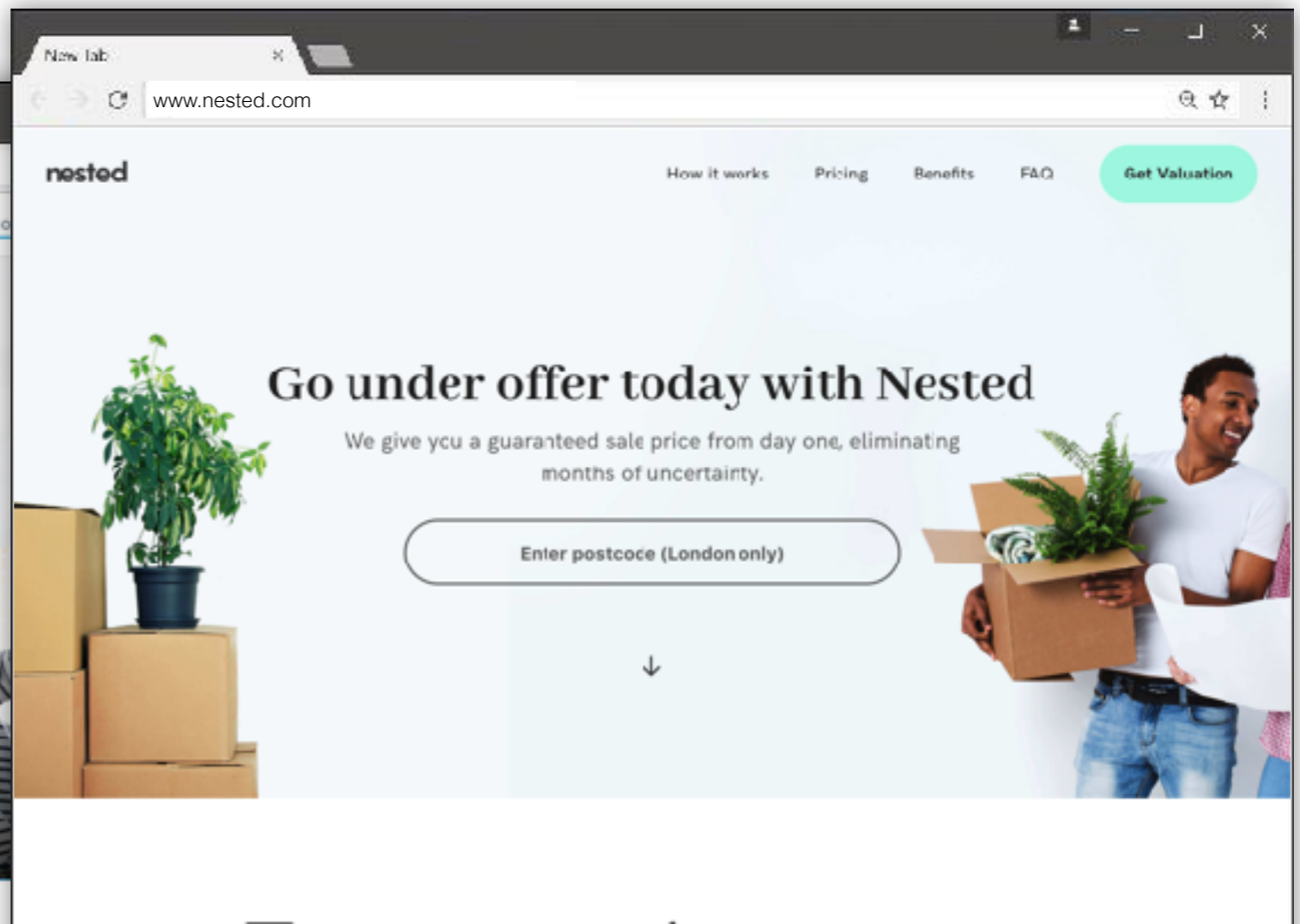
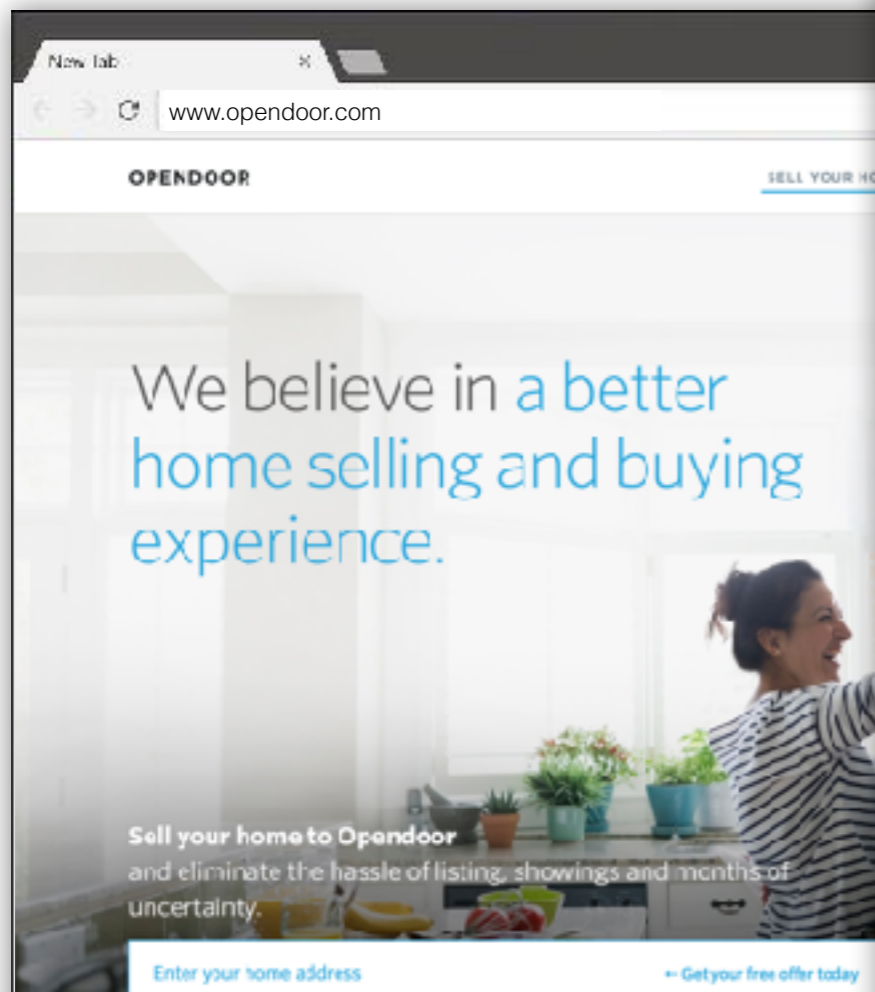
The Crumbling of the Defenses.

Historically, real estate assets enjoyed a set of advantages that worked to preserve their value and limit competition. Technological and social developments are undermining each of these defenses by:

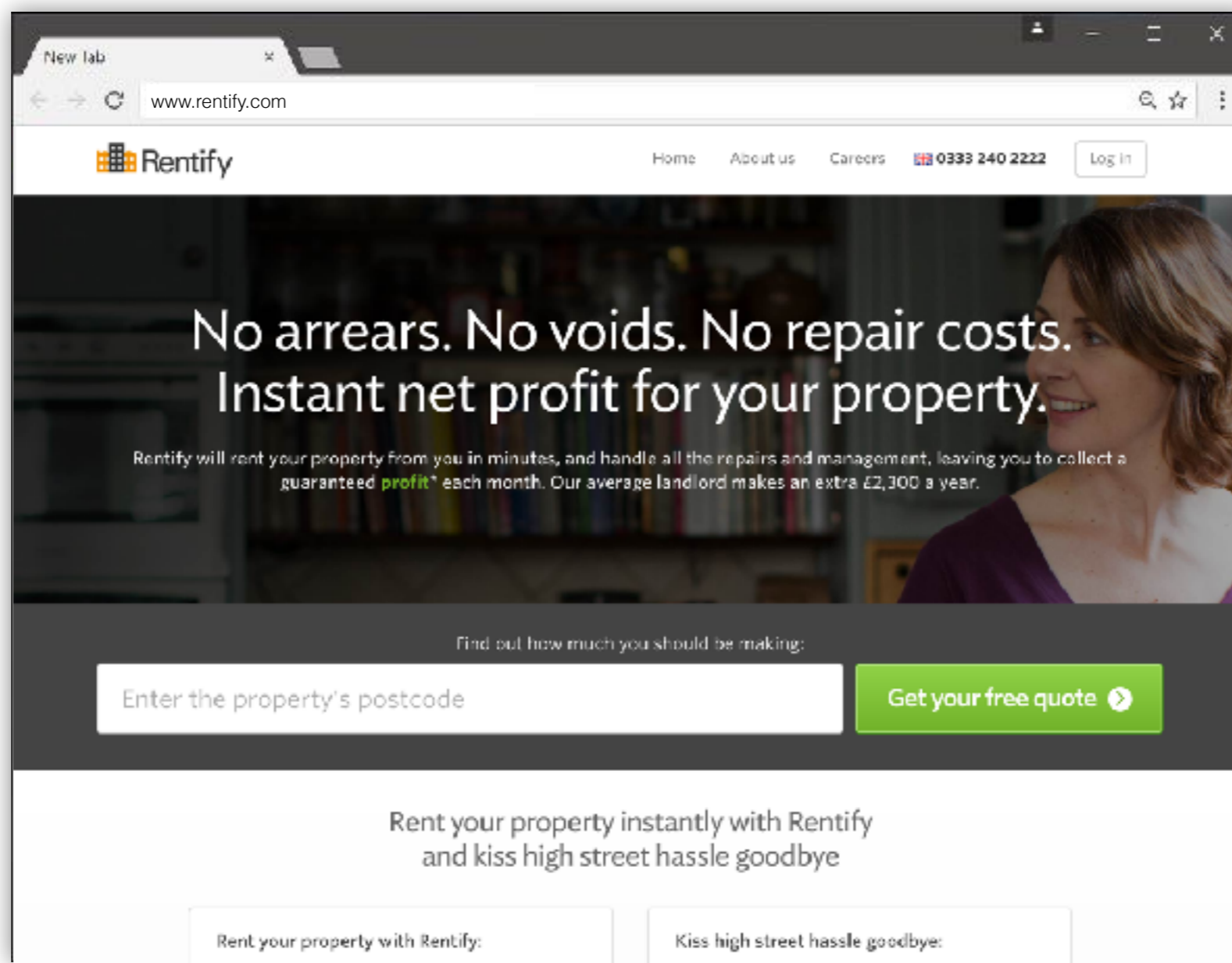
1. Diminishing the importance of location by facilitating remote work and changing the way we socialize and spend our free time;
2. Democratizing access to capital and information;
3. Enabling business models that reduce tenants' switching costs by increasing market liquidity, encouraging the sharing of resources, and facilitating on-demand usage; and
4. Redefining visibility and accessibility by channeling demand through new (online) distribution and marketing channels.

The following section contains notable examples of these dynamics.

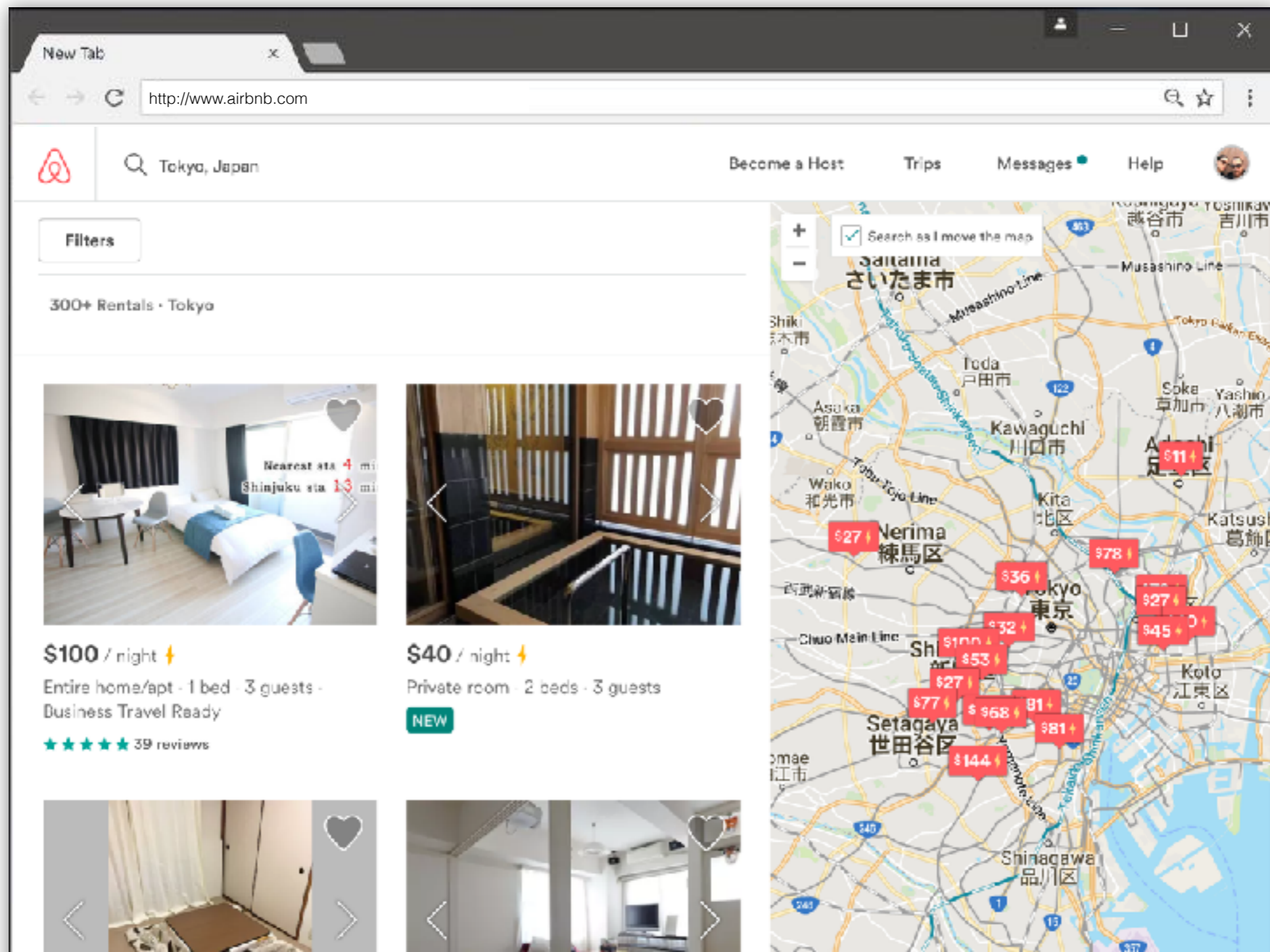
OpenDoor.com and **Nested.com** provide sellers with cash offers for their homes. This means short sales cycles, immediate cash payments, and avoiding dozens of visitors and inspectors.



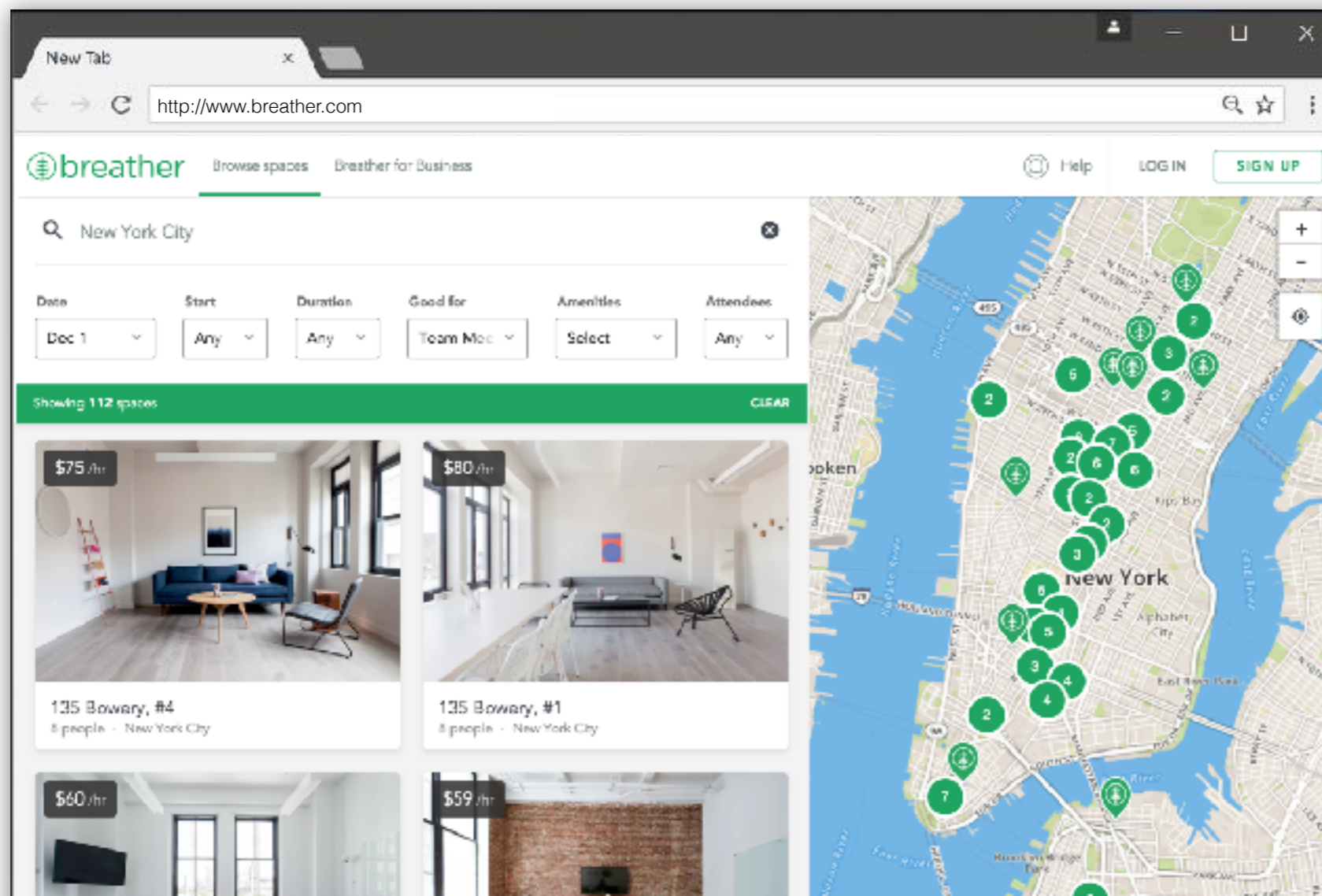
In a similar way, **Rentify.com** creates instant liquidity in the rental market, giving landlords an immediate offer for their property, and then handling all leasing and property management to produce a stable return.



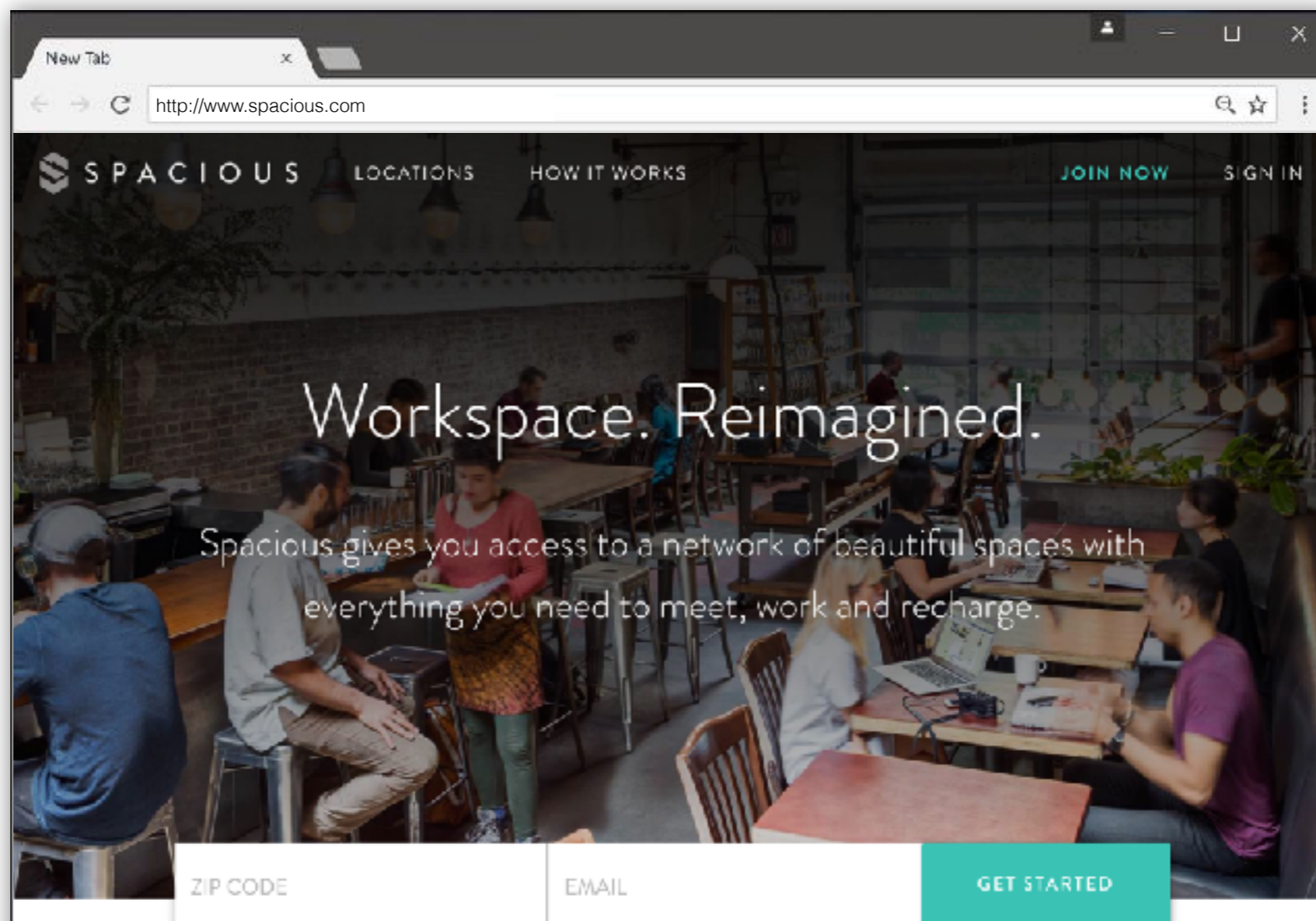
Aggregation platforms such as **AirBnB** provide access to underutilized residential space.



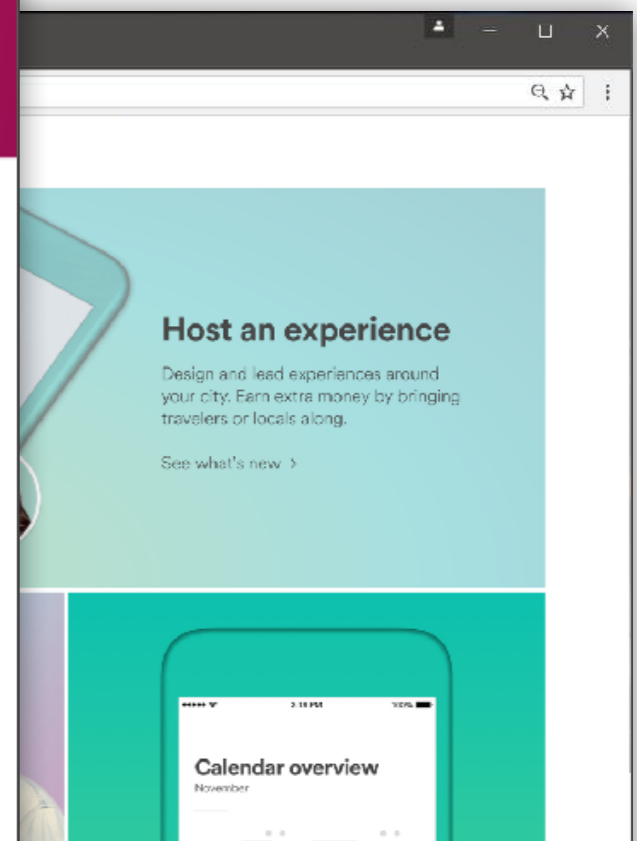
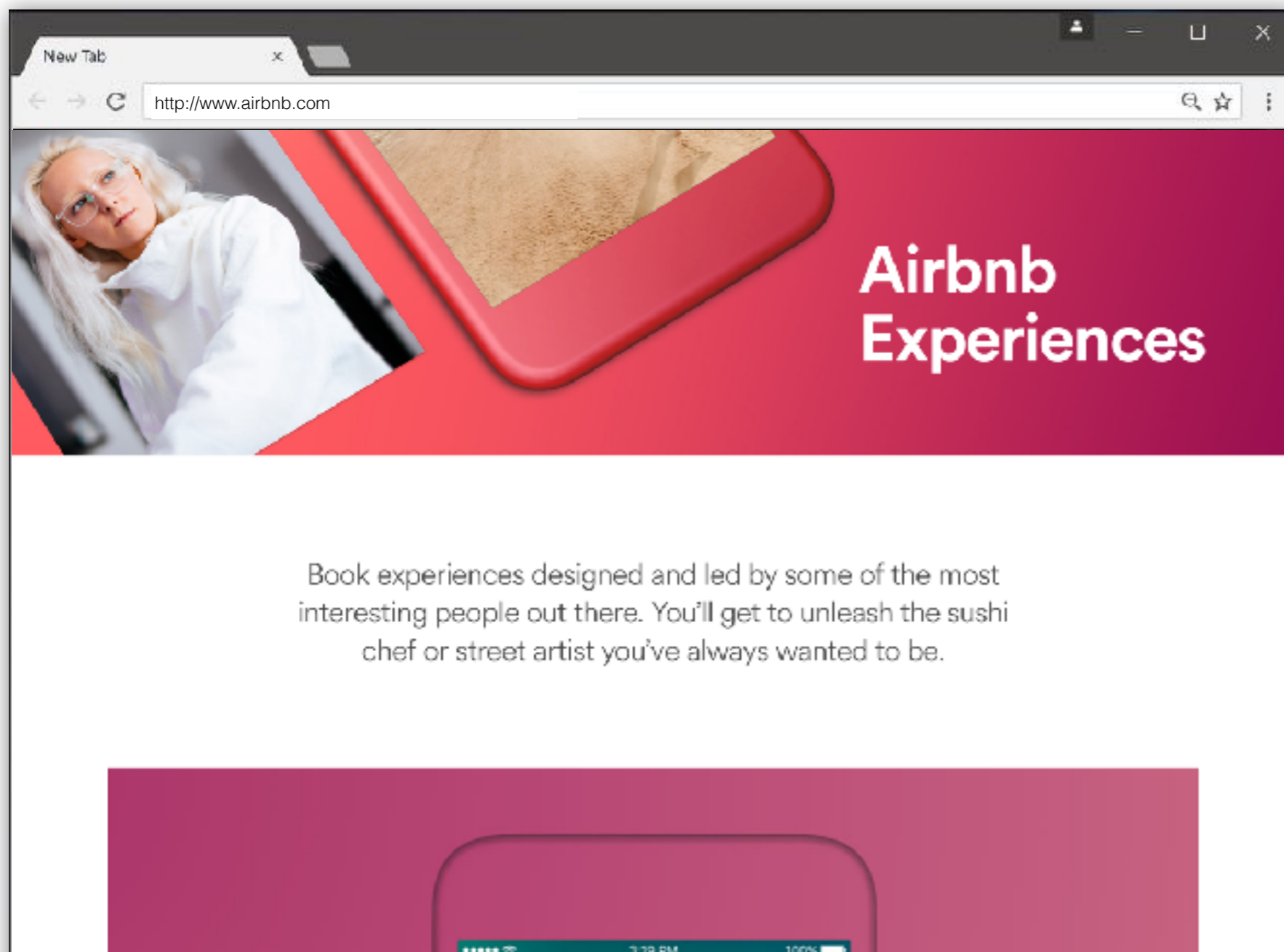
Breather.com provides on-demand access to private spaces in convenient locations across major cities, for 30 minutes or longer. The company designs and equips spaces to suit consumer needs — meetings, study sessions, or company off-sites. In this way, Breather extracts high yield from low-visibility locations.



Spacious.com allows restaurants to serve as co-working spaces during their off hours. Users pay a subscription that guarantees access to one or more spaces each day. The company equips each space with minimal infrastructure such as fast internet and coffee machines.



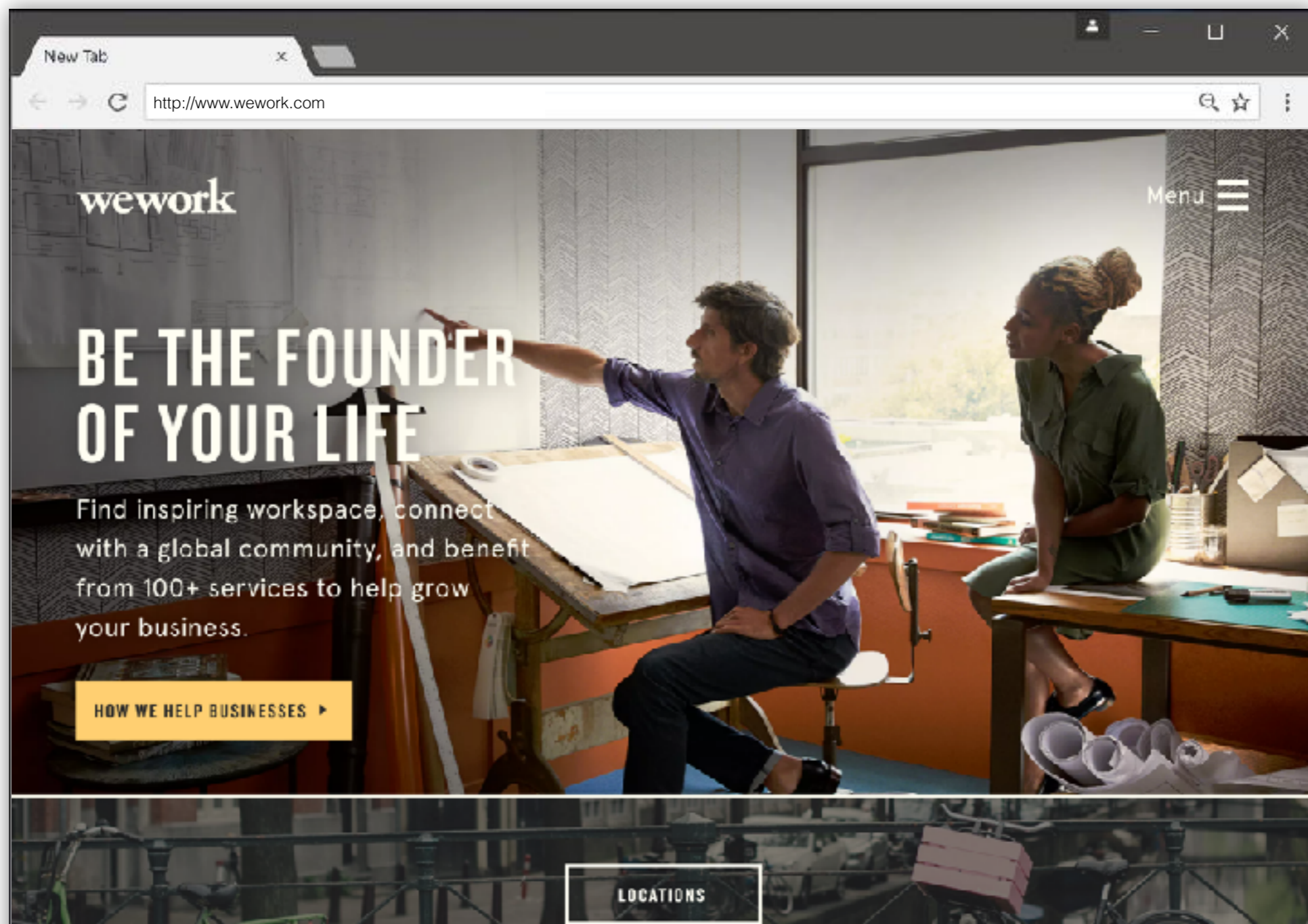
AirBnB recently started aggregating people's free time — allowing hosts to share their lives and hobbies with guests, for a fee.



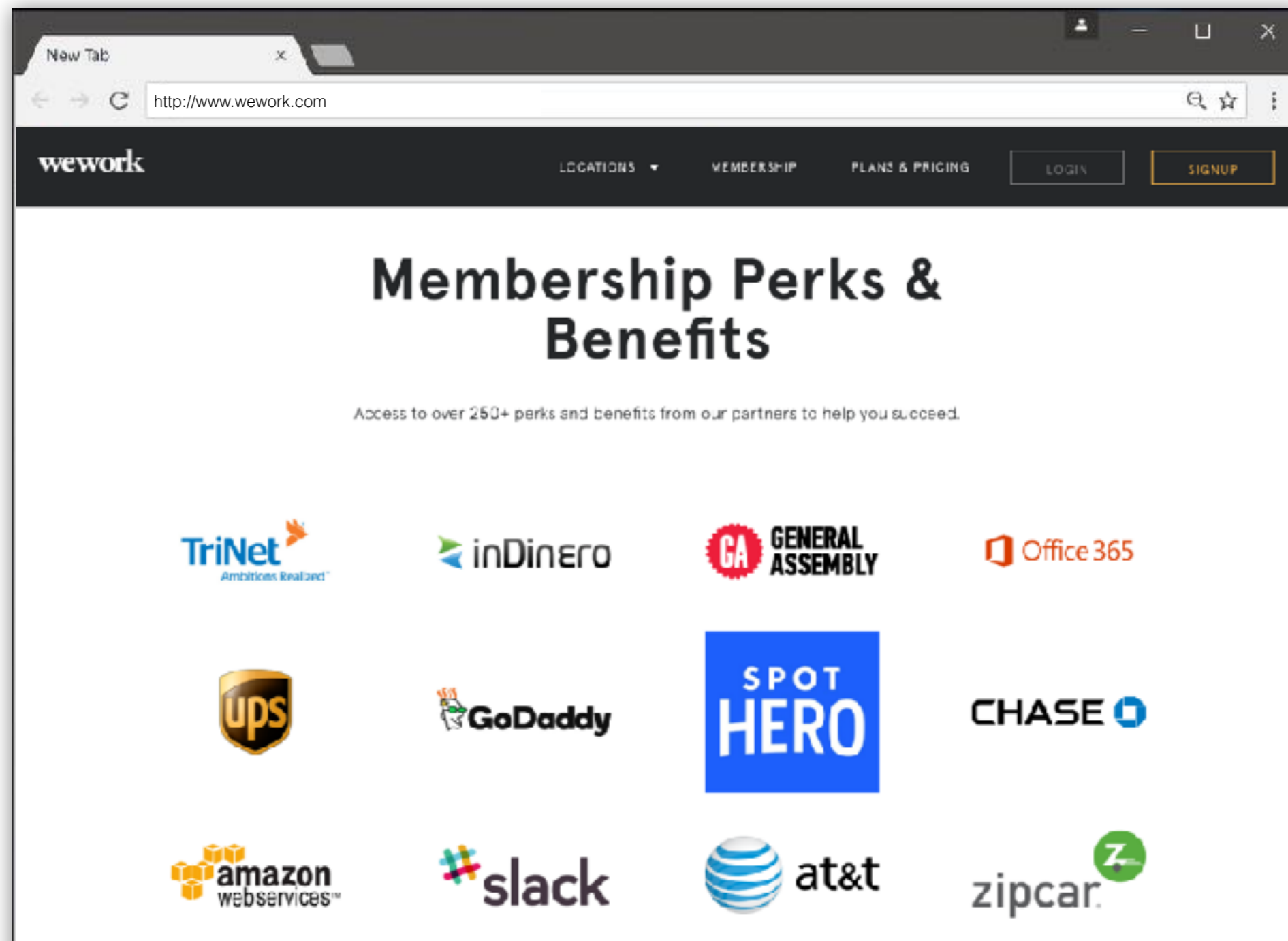
In addition, **AirBnB's** CEO recently announced that the company is starting to focus on longer-term housing solutions, not just on "trips".



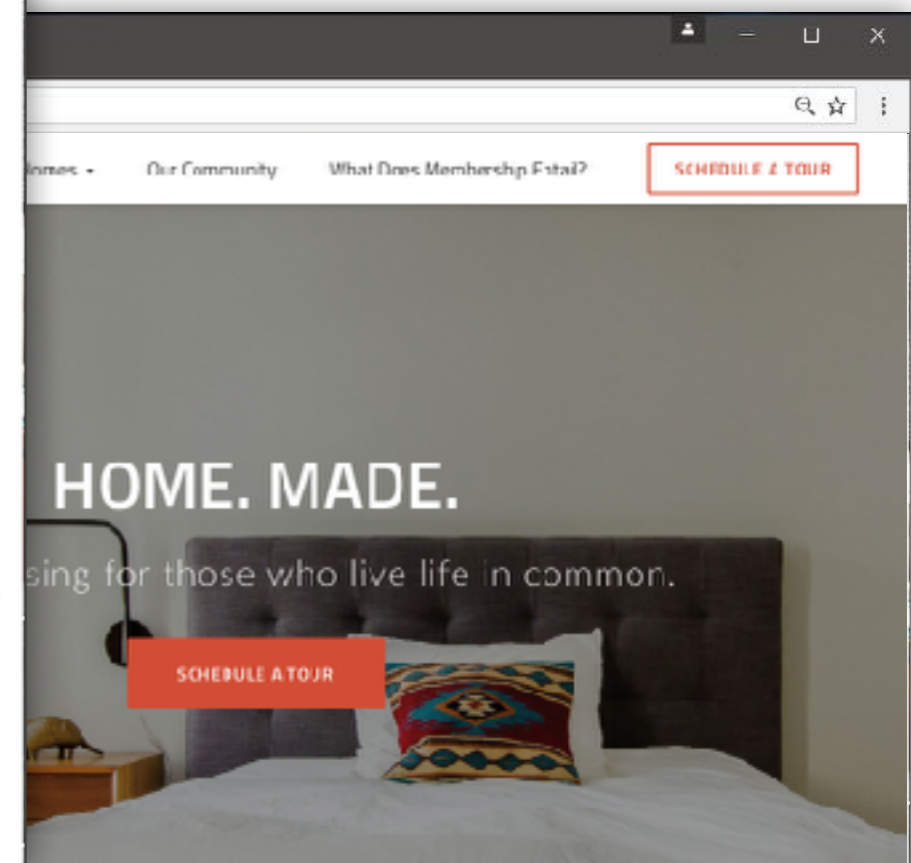
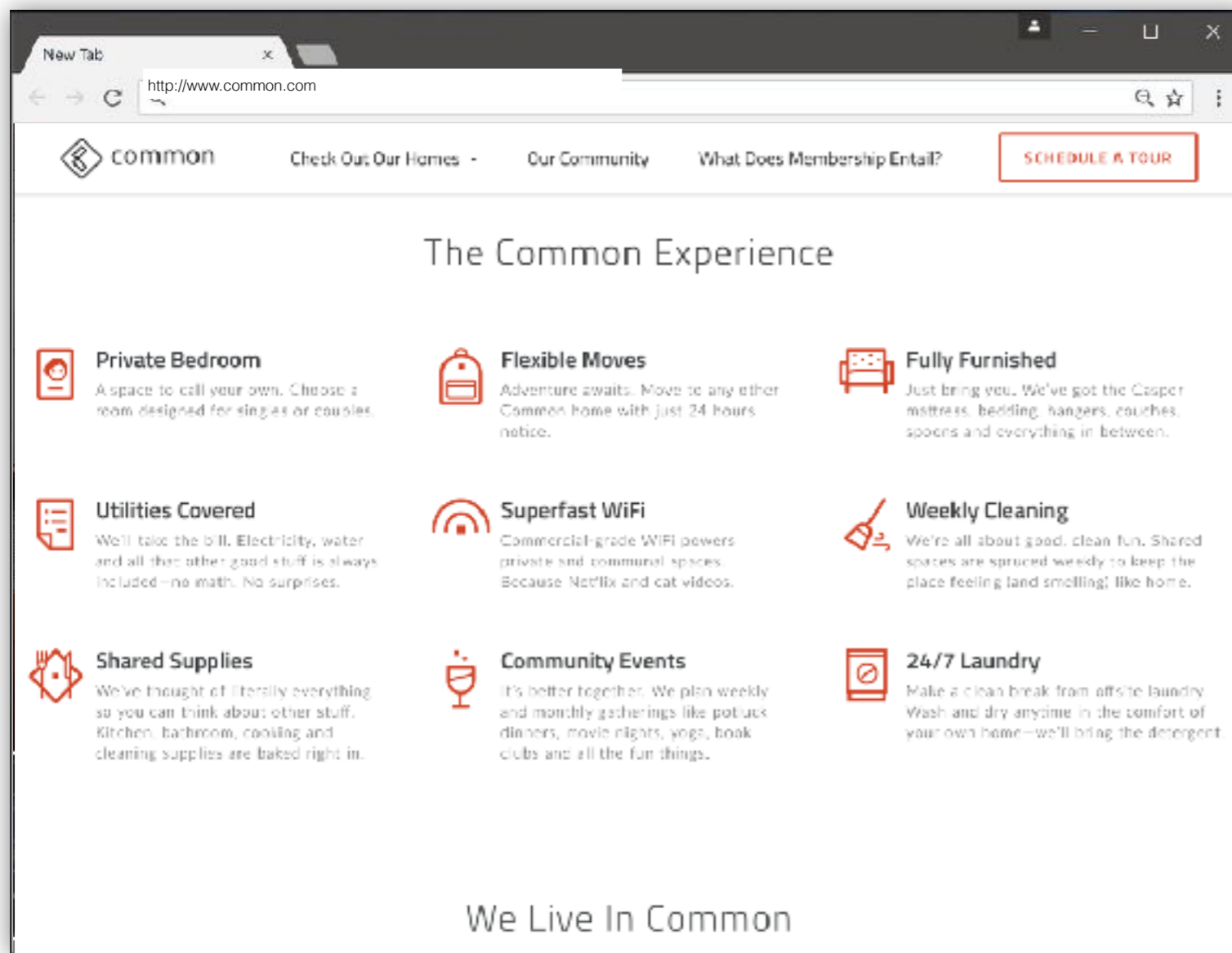
Social platforms such as **WeWork** create communities around co-working spaces. “Tenants” can interact and exchange services on an online social network.



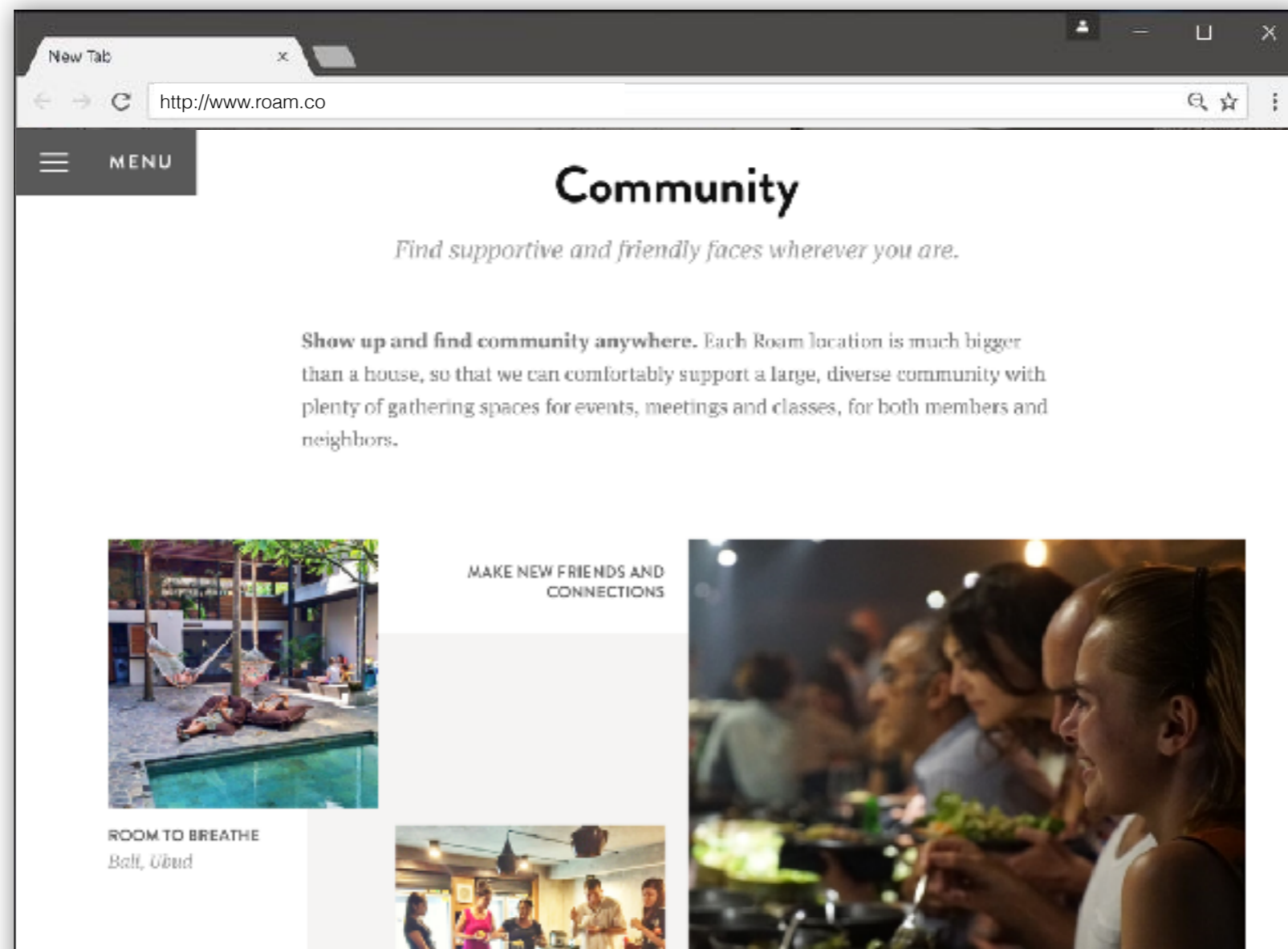
WeWork taps into additional revenue channels by offering 3rd party services to its members and leasing parts of its space for events and promotional activities.



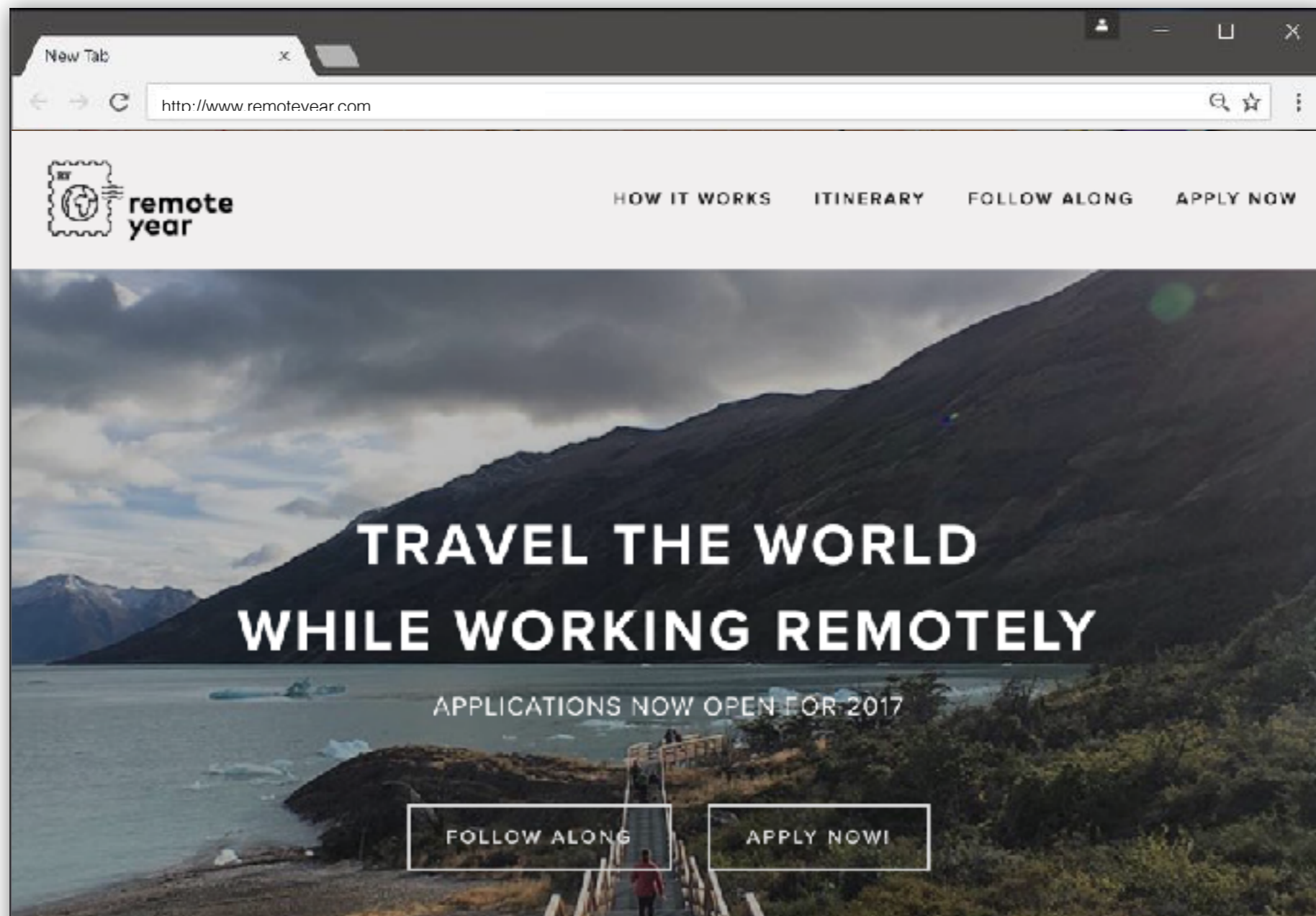
Common.com takes the pain out of living with roommates by providing a layer of value added services. It charges a subscription (rent) fee, and allows members to switch between houses with a 24-hour notice.



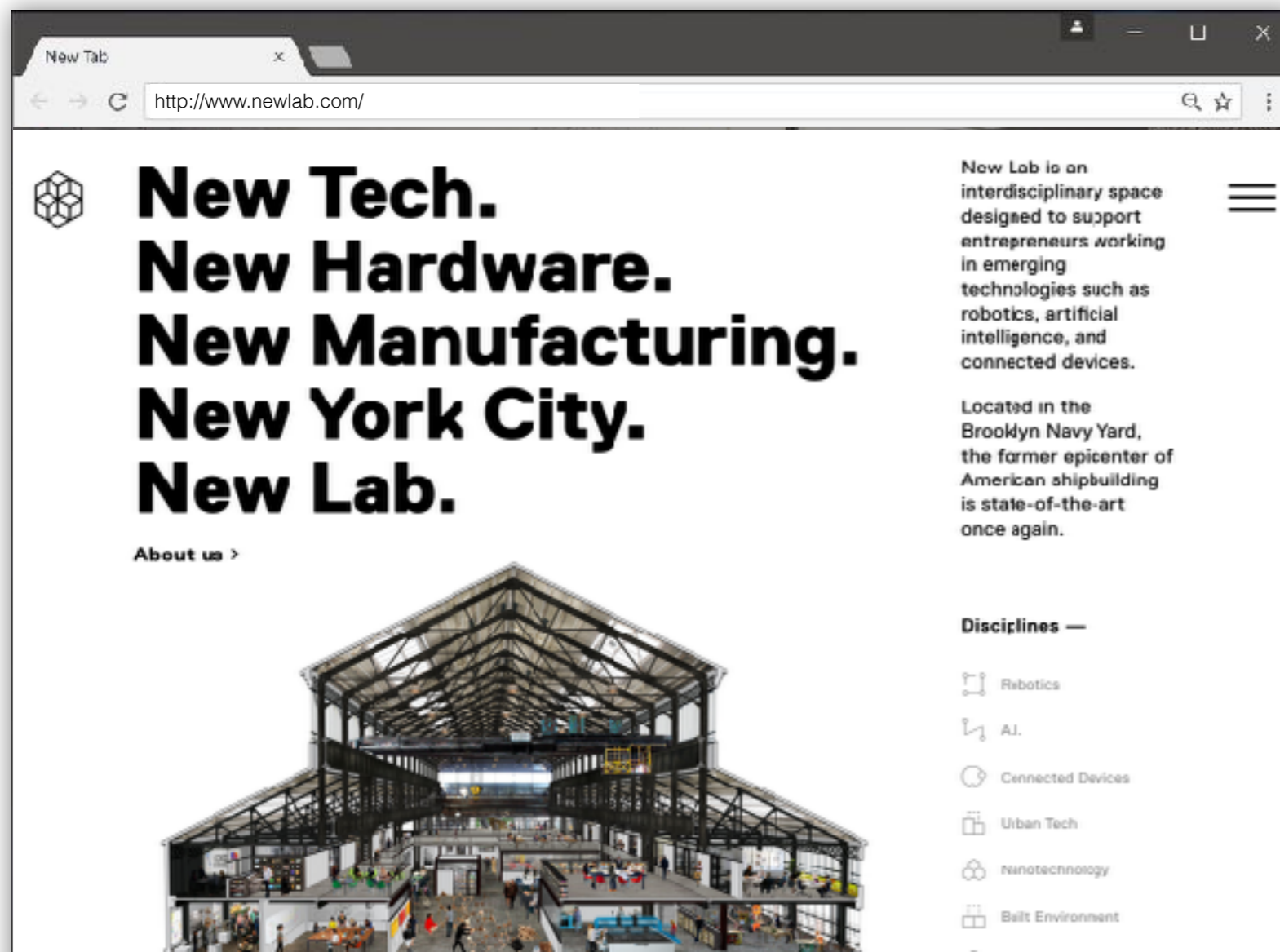
Roam.co provides flexible access to a private bedroom, co-working desk, and an instant “community of interesting people” in locations such as Bali, Miami, London, and Tokyo. Subscribers can switch locations once a week.



RemoteYear.com allows its “tenants” to live in 12 different locations during a single year. Each location has a shared workspace. The location and their tenants are curated to optimize everyone’s experience. 500,000 people have applied so far.

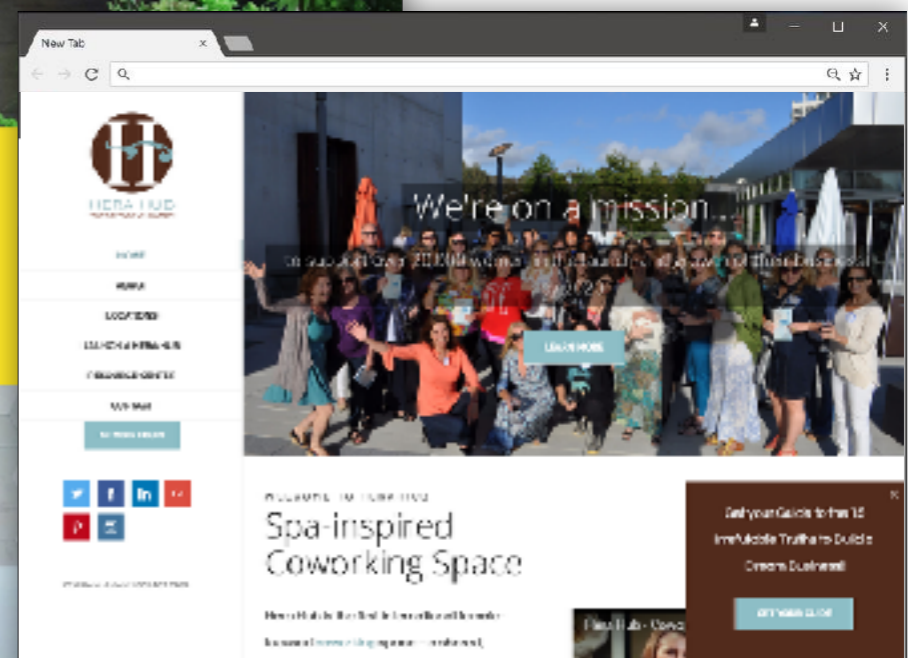
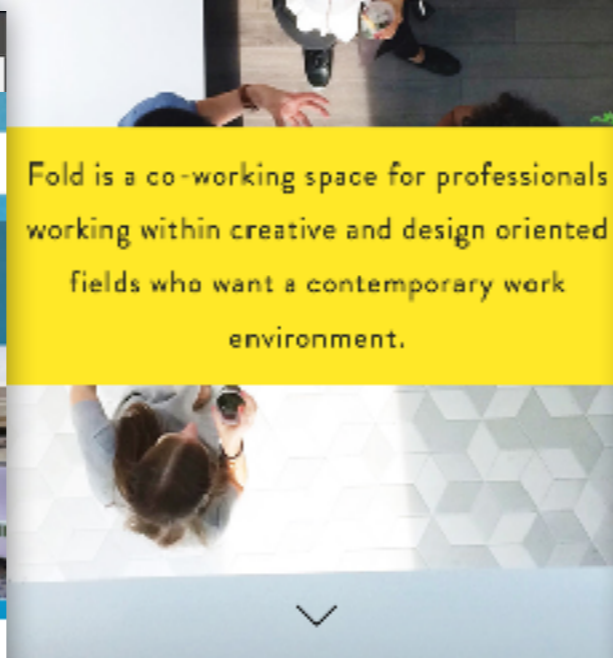
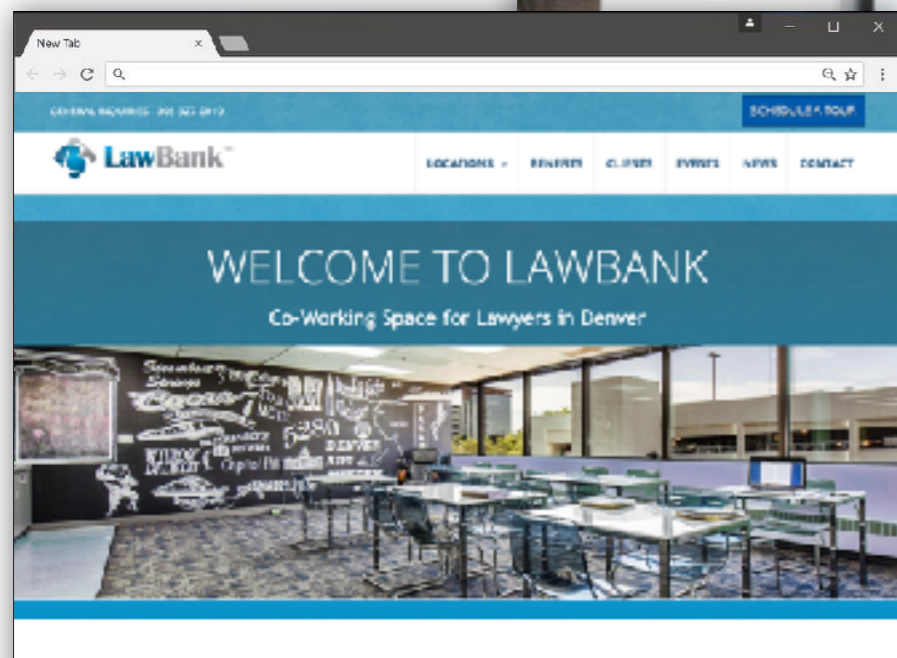
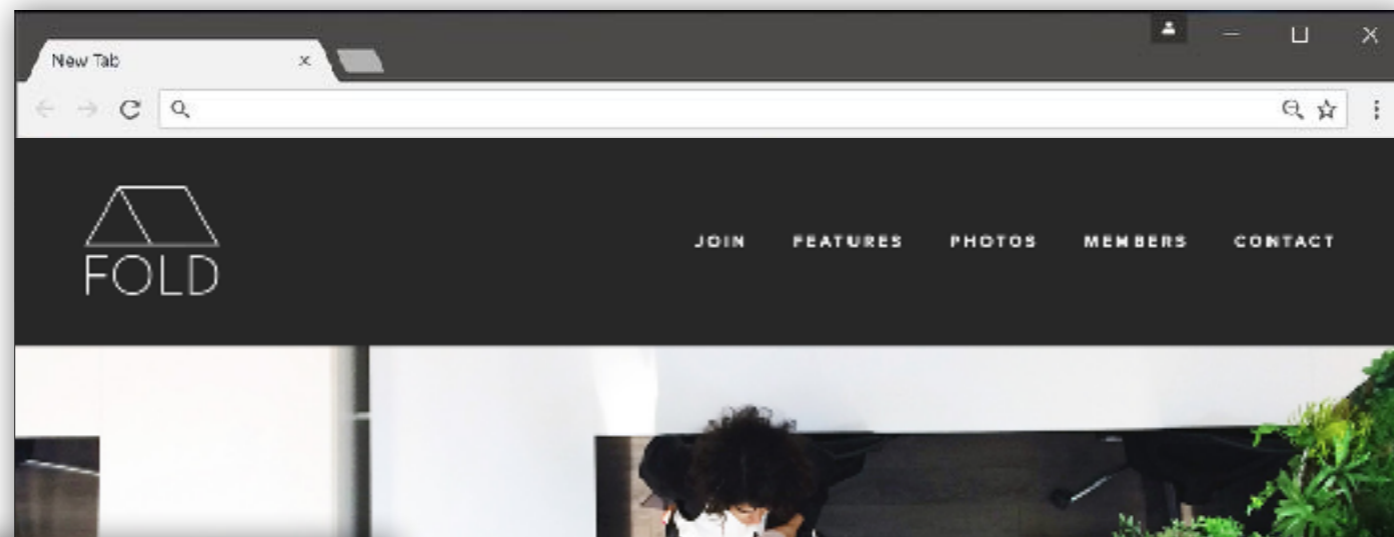


NewLab.com is a curated workspace for hardware entrepreneurs, providing on-demand access to specialized tools such as 3D printers, welding machines, and laser cutters.



Source: [PSFK](#)

Other curated co-working spaces offer similar services to musicians, filmmakers, lawyers, scientists, hardware developers, female entrepreneurs, mental health professionals, and writers.



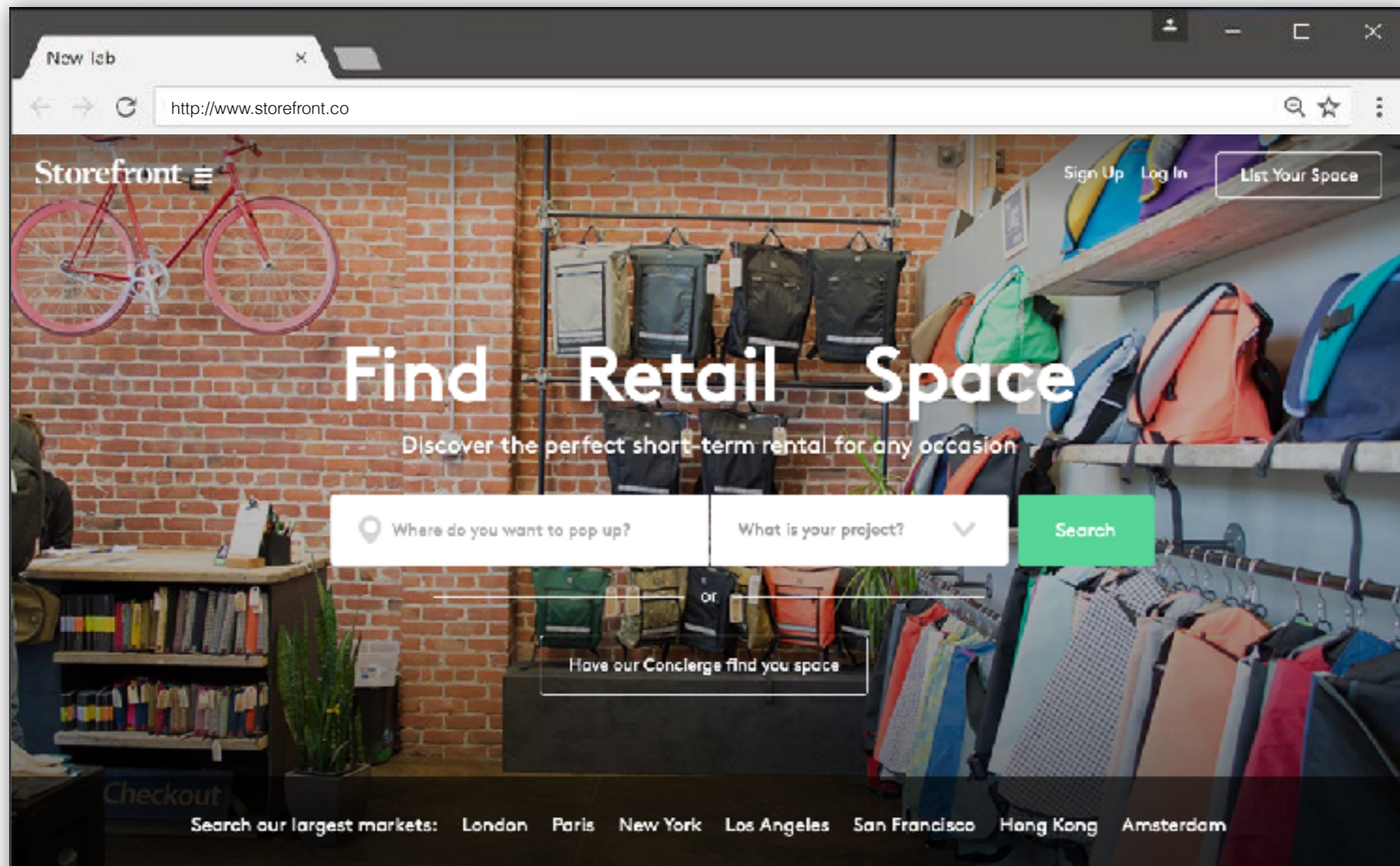
Serendipity Labs is offering co-working as a franchise opportunity, providing owners of physical space with a brand, client network, know-how, and management tools.

The screenshot shows a web browser window with the URL www.serendipitylabs.com. The page features the Serendipity Labs logo and tagline "Inspiration at Work." in the top left. A navigation menu includes "Locations", "Become a Member", "Blog", "About", "Coworking Franchise" (highlighted), and "Enterprise Solutions". A phone number "800 226 3673" and "Log In | Join" links are in the top right. A banner below the navigation reads "The Franchise Opportunity" with a red button containing the phone number "855-801-7757".

The main content area is titled "The Serendipity Labs Coworking Franchise Opportunity." and includes the text: "Capitalize on the huge shift toward worker mobility with ownership the leading members-only workplaces." Below this is a video player titled "Franchise Overview Q4 2013" showing a modern office interior.

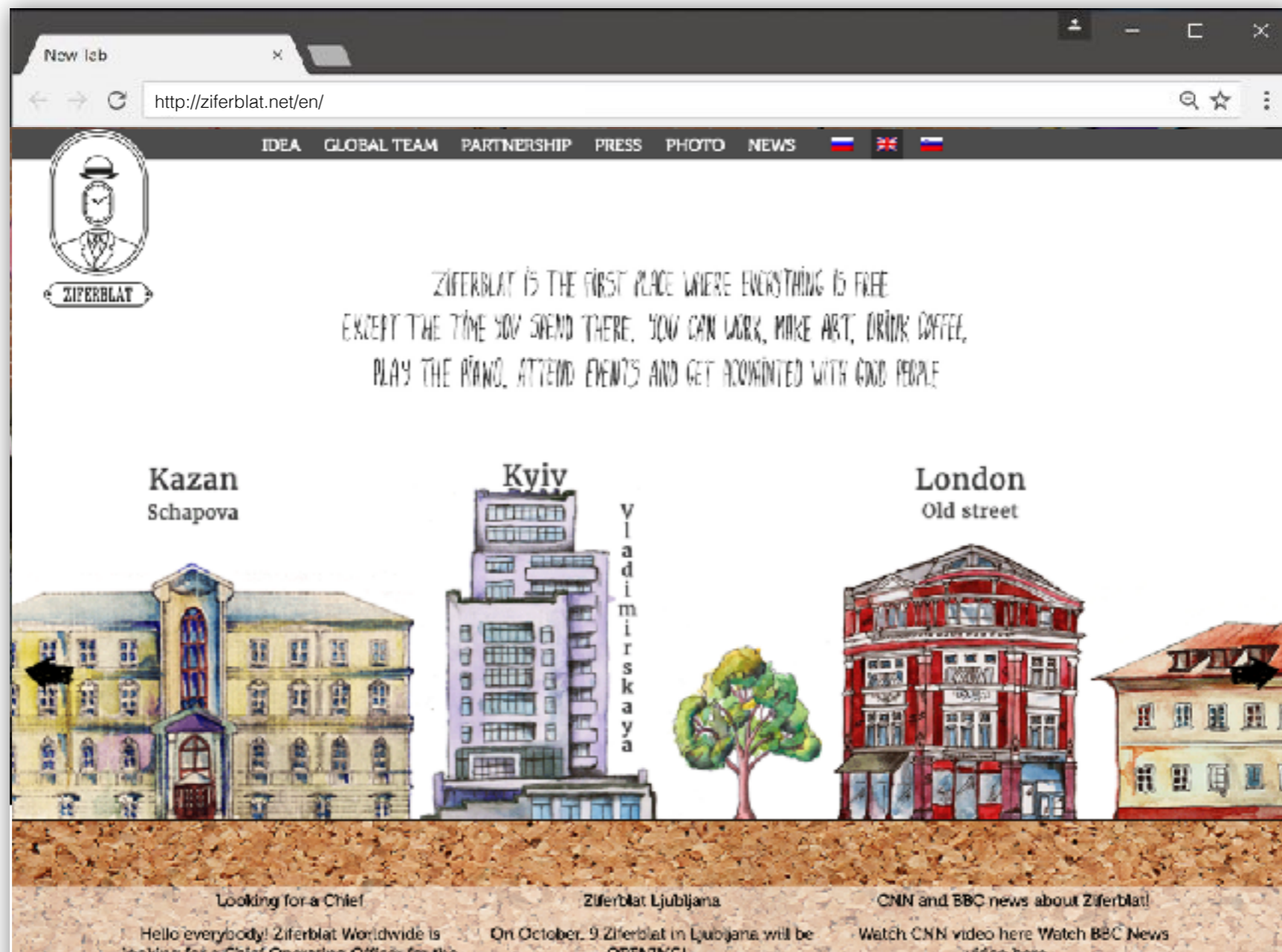
On the left side, there is a sidebar menu under "Coworking Franchise" with links: "What is Corporate Coworking?", "Why Serendipity Labs?", "Resources & Team", and "Markets Under Development". Below the sidebar is a "Get in Touch to Get Started:" form with input fields for "Name", "Email", and "Phone".

Storefront.com enables makers, designers, and artists to use un-leased retail and exhibition spaces for short periods of time.

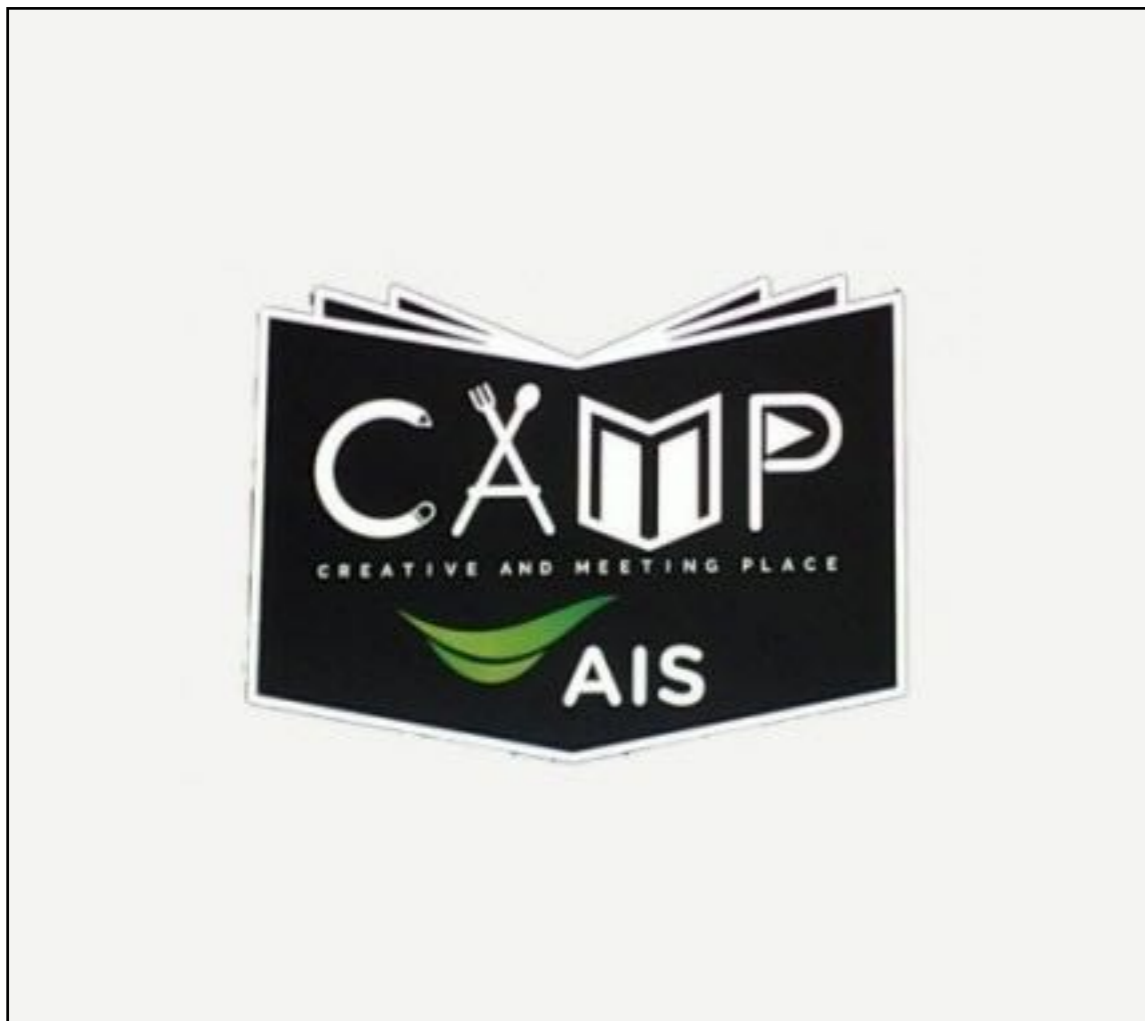


Search Our Biggest Markets

Ziferblat is an "anti cafe" — a place where everything is free, except time. Visitors can walk in to work, chat, play the piano or attend events. The cost is 5 pence per minute.



“Anti cafes” were born in Europe, but larger versions are now appearing in Asia. **CAMP** in Chiang Mai, Thailand, provides 2 hours of wifi access in exchange for a minimal payment for snacks. The customers are a mix of tech workers and students doing their homework.



Source: [AIS](#)



Source: [Awesome Wave](#)

The 9 Hours Hotel is an upscale version of the Japanese capsule hotel. Visitors enjoy access to plush amenities, a hot bath, and a special lighting and sound system designed for peaceful sleep. Access is regulated by QR codes, and the service is priced per nap, per bath, or per day — unbundling the standard 24-hour hotel stay.



Source: [Unique Hotels](#)

Source: [9 Hours Hotel](#)

Kasita is a prefabricated micro-home fitted with central heating and cooling, a queen-sized bed, full shower, dual induction cooktop, microwave/oven, washer/dryer, refrigerator, and the latest IoT technology. It can stand on its own, or racked together with other units — unbundling traditional apartment buildings.



Source: [Kasita](#)



Source: RealSimple



Source: CultureMap

On the financial front, the value of assets is also being unbundled. **Point.com** allows owners to sell a small percentage of their home equity, effectively bringing in a preferred shareholder in exchange for cash.

New tab

www.point.com

POINT

HOMEOWNER CALCULATOR

HOW IT WORKS

FAQ

1-888-764-6823

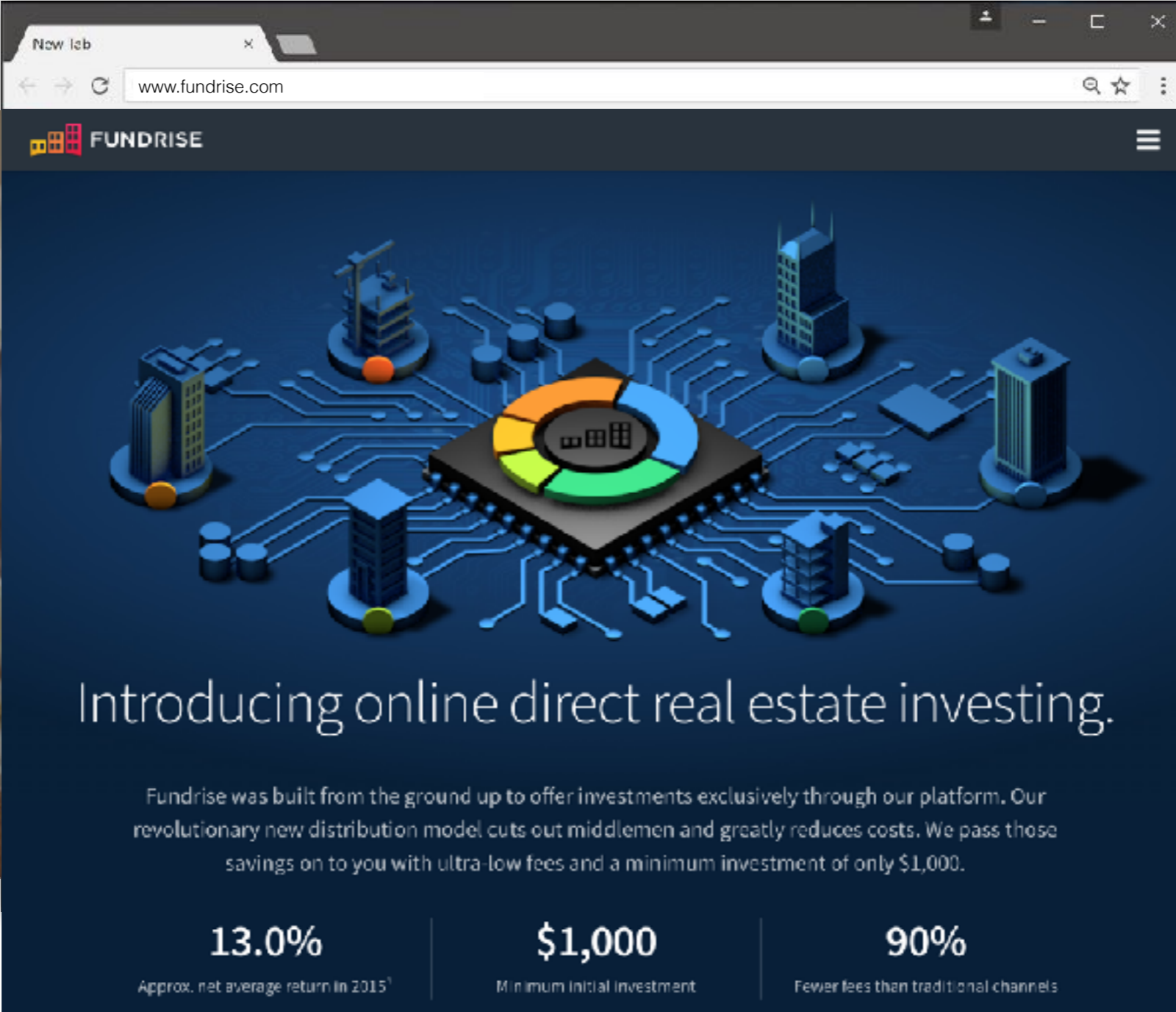
Point is an alternative to traditional home equity loans and HELOCs.
Point buys into a fraction of your property. There are no monthly payments.

Are you a homeowner?

NO

YES

Fundrise.com and **Realtyshares.com** unbundle traditional REITs, allowing very small investors to access mid-market assets for low fees.



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FUNDRISE

Introducing online direct real estate investing.

Fundrise was built from the ground up to offer investments exclusively through our platform. Our revolutionary new distribution model cuts out middlemen and greatly reduces costs. We pass those savings on to you with ultra-low fees and a minimum investment of only \$1,000.

13.0% Approx. net average return in 2015 ¹	\$1,000 Minimum initial investment	90% Fewer fees than traditional channels
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And just when you thought loans couldn't get any more precarious: **Jiedaibao.com**, an online lender backed by one of China's leading VCs, allows borrowers to use naked selfies as collateral. Welcome to the "sharing" economy.



Source: [South China Morning Post](http://www.scmp.com)






Key Takeaways:

- ▶ Space is broken down into smaller value units, allowing end-users to pay only for the specific components they wish to use — as desks, meeting rooms, bathrooms, beds, etc.
- ▶ Time is broken down, reducing the minimal commitment required from end-users to as little as 30 minutes — shifting profits to those who can secure large spaces “wholesale” and lease them out “retail” in smaller sizes for shorter periods of time.
- ▶ Incremental use (smaller spaces, shorter periods) gives rise to dynamic pricing models.
- ▶ Equity is broken down, enabling smaller owners to share their financial burden with other small and medium investors.
- ▶ Visibility is no longer just about being seen offline. Accessibility is now partly about the ability to book space and other amenities within it on demand. Spaces with “good enough” locations become more valuable through optimized design and innovative marketing.
- ▶ New attributes - community, curation (who else is there?), content (events), value added services, and availability on demand - are eclipsing location and accessibility as the key drivers of differentiation between assets.

Industry Responses

The 5 Stages of Real Estate Grief

It takes time to come to terms with a new reality. This is especially true in the case of real estate, an industry that operates on the assumption that value lasts forever. The hotel industry's response to AirBnB is a case in point.

 Denial	Assuming AirBnB will not damage the hotel industry.
 Anger	Hotel industry hiring lobbyists to crackdown on AirBnB.
 Bargaining	Attempting to level the playing field by imposing taxes and regulations on AirBnB. Negotiating AirBnB partnerships.
 Depression	Hotel and lodging REITs valuations plummet.
 Acceptance	Hotel chains invest in room sharing apps; launch concepts with more “at home” feel.

Some owners and operators are responding by expanding into related industries — investing directly in emerging technologies and services. This dynamic is most advanced in retail, where operators already have high awareness of the importance of platforms, curation, and value-added service.

		
<p>A venture capital fund and tech accelerator of one of the world's largest shopping mall owners and operators.</p> <p>Focused on technologies that “remove friction from physical commerce”.</p>	<p>The world's leading Real-Estate tech incubator — investing in early-stage companies innovating at the intersection of Real Estate and Technology.</p> <p>Founded by David S. Rose, scion to one of New York's largest property developers.</p>	<p>Venture capital arm of the largest retail real estate company in the world.</p> <p>Its mission is to help create the future of retail by investing in retail technology that enhances the shopping experience both online and offline as well as investing in rising new brands.</p>

Swire, one of Asia's largest CRE owners and operators, launched Blueprint, a co-working space and tech accelerator. The initiative is part of an effort to rejuvenate and re-position part of the company's iconic mixed-used project, Taikoo Place.



Source: [Blueprint / Swire Properties](#)

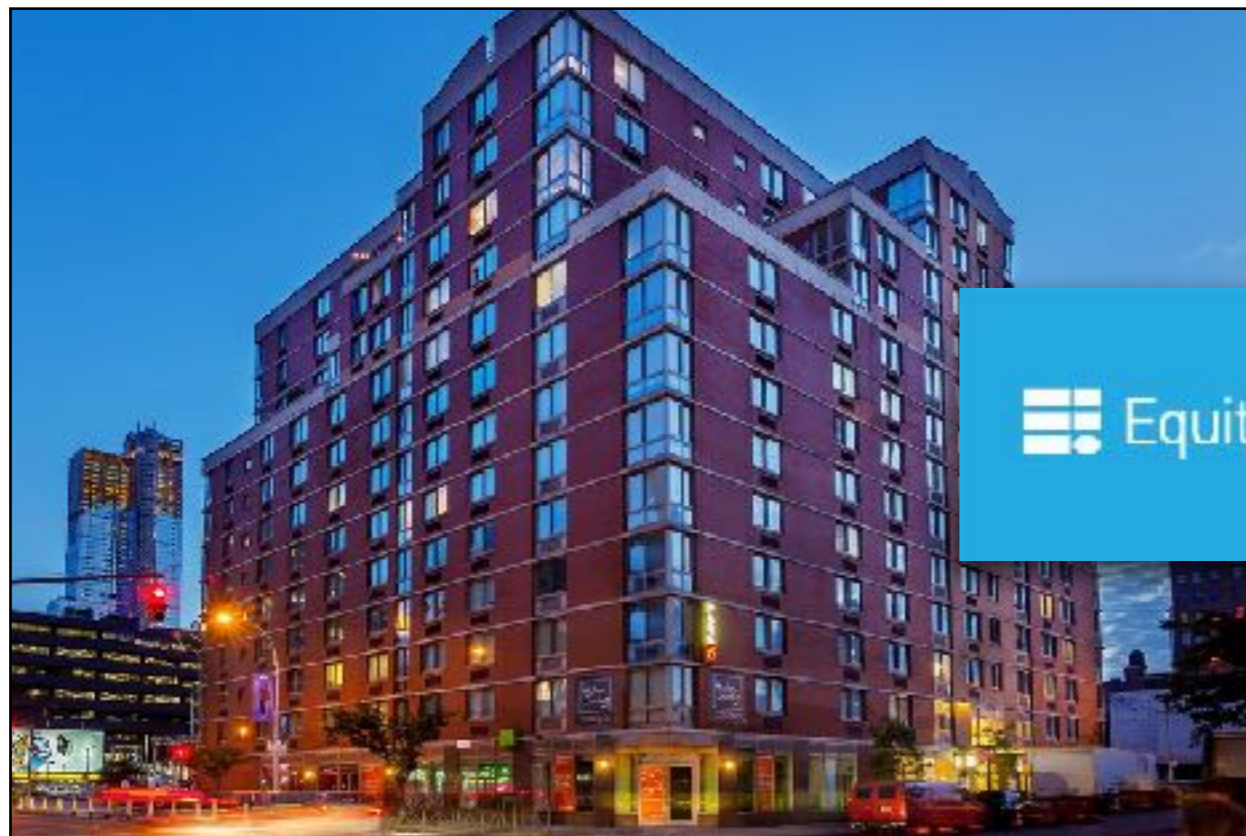
Gaw Capital, a property funds group, invested \$15m in Shanghai's Naked Hub co-working space network, with the aim of expanding to 30 new locations across China. In the US, real estate giants such as Boston Properties and Rudin invested an undisclosed amount in WeWork.







Source: [Forbes](#)

Images: [Naked Hub](#)

Equity Residential, a US REIT, converted* one of its NYC buildings into a makeshift hotel by offering new services to tenants and marketing their furnished units for short/medium through an online platform. Many NYC landlords conduct similar short-term deals using informal channels.



Regus, a traditional operator of furnished offices, is shifting some of its locations to daily, on-demand use. It recently launched a mobile app to allow users to manage bookings directly. The company split its original offering into 6 different sub-brands, each with a different value proposition to suit a specific type of end-user.

			
<ul style="list-style-type: none"> • Flexibility • Support • Consistency • Professionalism 	<ul style="list-style-type: none"> • Flexibility • Community • Inspiration • Creative workstyle 	<ul style="list-style-type: none"> • Exclusivity • Luxury • Privacy • Status 	<ul style="list-style-type: none"> • Value • Functional • Ease • Convenience

Source: [Regus / Annual Report](#)

Landlords such as **Stonehenge**, **Rose Associates**, and **Kushner** are teaming up with startups such as HOM to create unique experiences for their tenants. HOM injects content and activities into residential gyms, roofs, and lounges — creating a strong reason for tenants to remain in the building and for new ones to join.



Source: [HOM](#)

The Ascott, one of the world’s largest owner-operators of serviced apartments, recently launched Lyf (pronounced “life”) — a new residential concept combining co-living and co-working spaces and offering a “community-based experience”.



Source: [Ascott](#)

Photos: [Business Traveller](#)

Accor Hotels (Sofitel, Ibis, Pullman, etc.) is launching a new co-living concept that brings together local residents and travelers. The concept is developed in collaboration with Jo&Joe, a hostel operator, and will include activities to enhance wellness and nurture community. The group plans to open 50 properties of this kind by 2020.



Source: [PSFK](#)

Two Roads Hospitality, a merger between Detination Hotel's and John Pritzker's Commune Hotels, is launching "tommie", a new chain of micro hotels — tiny rooms with access to great shared amenities, in central urban locations.



Source: [Two Roads Hotels](#)

Source: [Urbanize.la](#)

Arlo Hotels recently launched its own take on micro hotels in NYC. It features tiny rooms, including bunk beds, at central NYC locations, with access to upscale amenities and a promise of a lively community and buzzing events calendar.



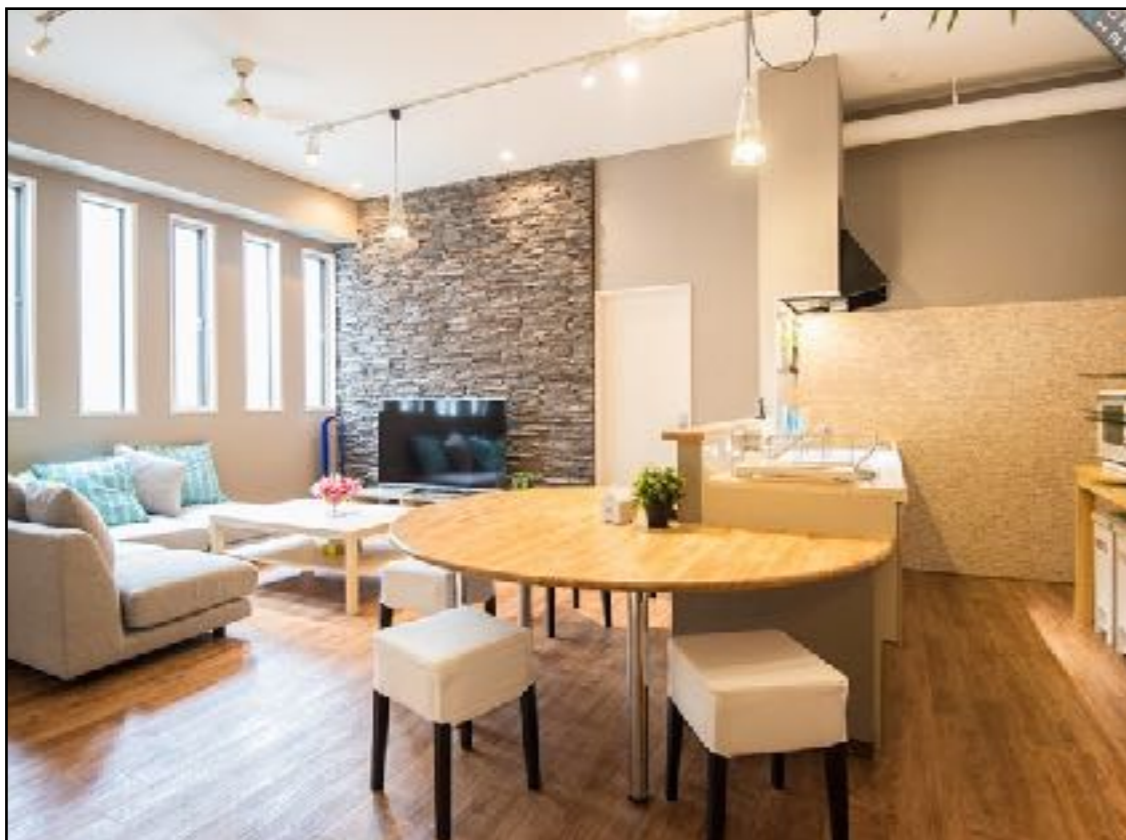
Source: [Arlo Hotels](#)

West Elm, a furniture retailer, recently partnered with real estate executives to launch a new hotel chain. The interesting angle here is not the co-branding, but the way in which a brand can leverage its existing customer network, data, and suppliers to crossover into real estate — injecting value into assets that in less-ideal locations.



Source: [Bloomberg](#)

In Japan, various property owners and operators are launching “Share Houses”, a type of managed shared housing concept, adding common areas and facilities to traditional apartment buildings and emphasizing “community”. These houses cater to long-term residents as well as short-term visitors.



Source: [Tokyo Share House](#)

Broader Implications

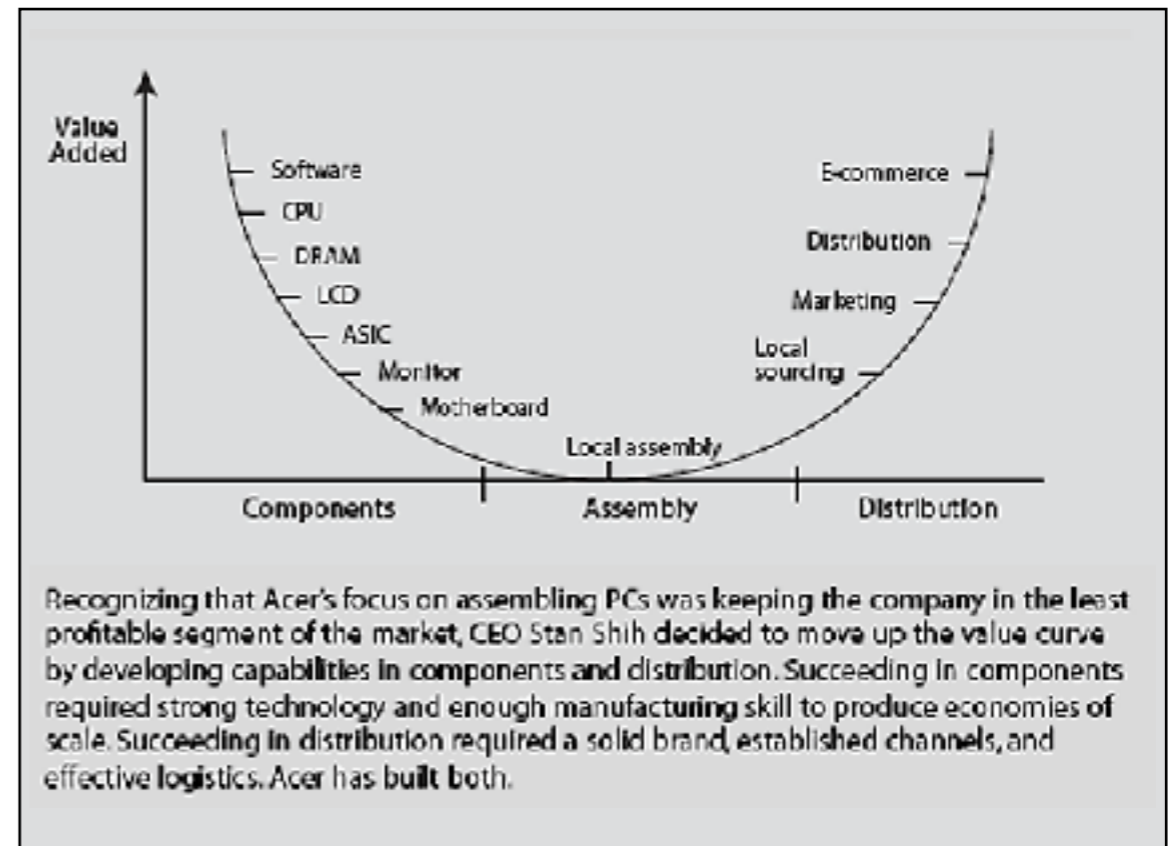
(It's a bit wordy, but it's worth it.)

Is space becoming a commodity?

The crumbling of traditional defenses puts many real estate assets at the risk of being commoditized — undifferentiated and dependent on online aggregators and tech operators. This brings to mind the Smiling Curve, originally used to illustrate how profits (“value”) are distributed along the supply chain of the electronics industry.

The curve shows how the commoditization of physical products works to shift profits from those who build and manufacture (the middle of the supply chain) towards those engaged in R&D and concept development (beginning of the chain) and those engaged in sales and customer support (the end of the chain).

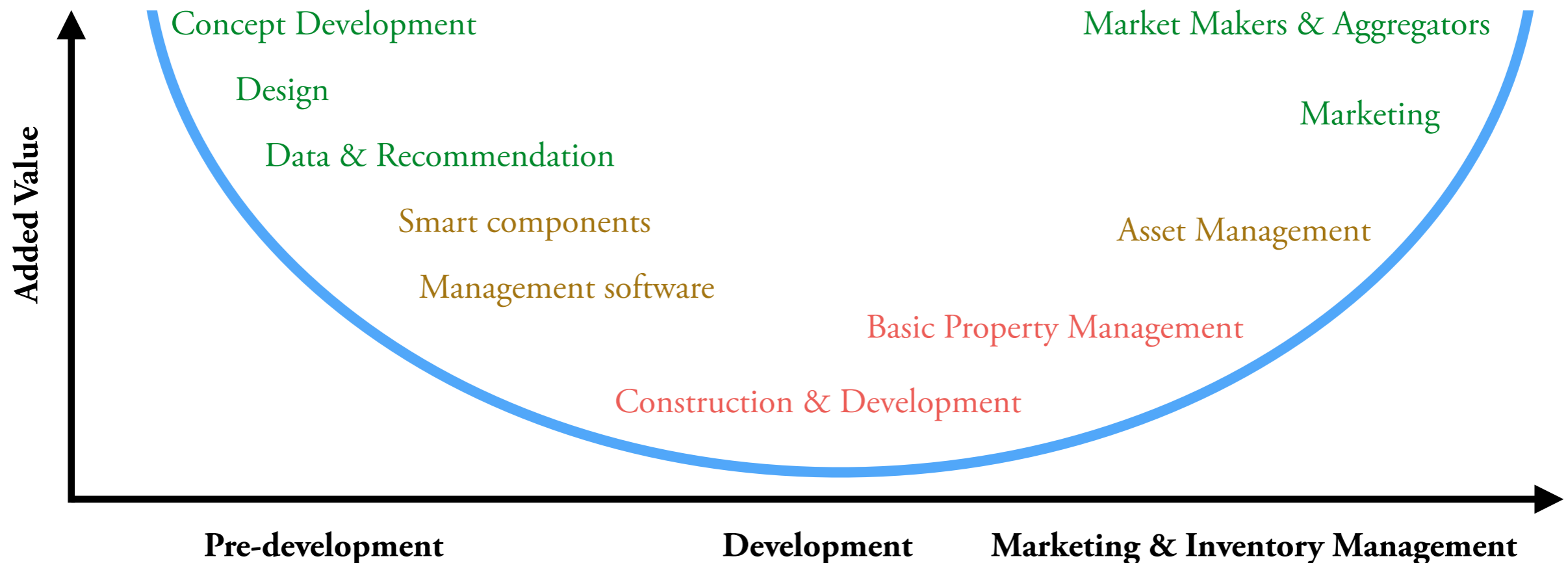
For example, value in the supply chain for personal computers is captured by those who develop proprietary software and components and those who specialize in marketing and online sales. Those who actually “build” the computer capture a fraction of its value.



Source: [Harvard Business Review](#)

Developers and traditional operators are at the risk of getting stuck in the middle of the supply chain, surrendering profits to ventures that specialize in developing attractive concepts, brands, and technologies on one side and to those who specialize in aggregating and marketing inventory on the other.

This means that the overall yield extracted from real estate assets may rise, but a growing part of it will come from non-traditional business models and captured by new or innovative players. Ultimately, on-demand “space as a service” might replace ownership and long leases altogether in many segments.



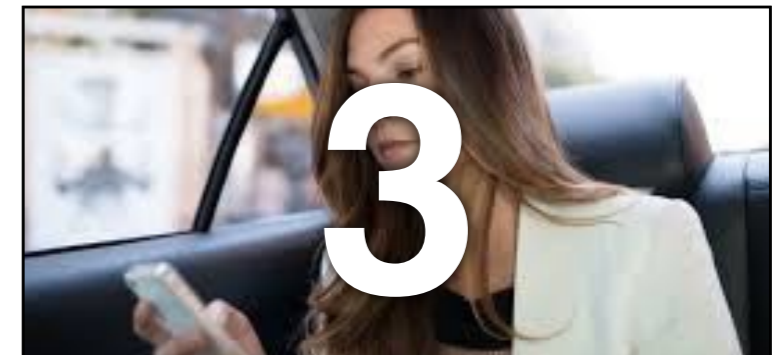
The automobile industry offers some guidance: Ownership and long-term commitment shifts towards on-demand usage. Software companies are eating incumbents. “The channel is the product”: If people book rides through an app, what matters is the experience on the app; the car itself becomes a commodity.



“Everyone” owns a car.



Technology makes it viable to provide affordable private rides on demand.



Car ownership declines, fewer people learn how to drive.



Self-driving cars become increasingly reliable.



Cars are becoming a service, no longer owned by individuals.



Traditional automakers and sellers are supplanted by software companies that own fleets of self-driving cars.

Developers and operators that lack the scale to acquire or develop new capabilities will be at a disadvantage. Funds that focus on the value and operation of individual assets will fall behind.

The ability to create synergies across a portfolio is no longer just an advantage, it is a necessity. The ability to innovate and differentiate is no longer an advantage, it is critical.

Traditional players are at risk of being shut out of large parts of the market by online aggregators or ceding most of their profits to new types of operators.

What can you do?

Don't think of a building.

Apartment and office landlords need to start thinking like retail operators, and like startups.

1. Redefine your customer. It's anyone who uses your space, not just the entity that signs the lease.

2. Analyze everything. When do your customers arrive and leave, how often do they go to the bathroom, where and when do they like to have their coffee, what are their hobbies and interests, how far do they live, and more.

3. Curate tenants. Filling space is not enough; bring tenants together to create synergies — make your tenants more likely to stay, new tenants more likely to join, and more.

4. Keep track of indirect competitors. Your customers' need can be satisfied in different ways. Don't look just at similar buildings; look at all available solutions.

5. Don't cede the customer relationship. This will help you understand them better and protect

against disruptive competitors. In extreme cases, this means investing in new aggregators and operators while they are still small.

6. Cannibalize today to grow tomorrow. Dedicating resources to develop and experiment with new models and experiences. For example — converting a small percentage of your property into a co-working area, on-demand meeting rooms, or event space.

7. Seek deep differentiation. A good building in a good location is no longer enough. Consider dimensions such as community, curation, content (events), business model (dynamic pricing, flexible leases).

8. Make the most of your competitive advantage. Do you have a large portfolio? Lots of cash? Unused storage space? Cheap access to office furniture? Leverage everything you've got to serve the needs of your customers. Innovators are eager to fill any gap you leave unfilled.

9. Don't ignore innovators, even if they don't affect your bottom line. Keep an eye on what's happening in the industry. Business models that seem harmless today might grow to threaten your core business tomorrow (especially if you cede control of the customer relationship).

10 Explore unbundling and re-bundling opportunities. Facebook used to do everything, but now users prefer one app for messaging, another to share photos, and several more to meet new people, discover events, or maintain professional relationships. Consider whether it is worthwhile to create separate offerings for different types of customers / locations / times. Also consider what services could be bundled into your existing offering to make it more attractive — partnerships with nearby vendors, online groups, and more.

At a deeper level, prepare for a world where staying relevant is a constant cycle of gathering feedback and adjusting yourself to your customers.

How can I help?

I help **real estate funds and asset managers** optimize existing assets; evaluate investments and partnerships; and identify long-term threats and opportunities.

I also work with **architects and developers** to understand tomorrow's end-users, and help real estate **startups** reach product-market fit.

I spent the last two decades developing offline and online destinations that consumers love. This includes overseeing a \$2.5 billion real estate portfolio, negotiating with some of the world's largest tenants and institutional investors, and launching an award-winning mobile app.

To learn more, please visit www.poleg.net

Questions? Comments? Want to discuss how these developments apply to your business? Get in touch.

dror@poleg.net

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