New Abundance, New Scarcity.
What Happens to Physical Space in a Digital World

Dror Poleg, May 2019
“Software is eating the world”
What did it eat so far?
Which real estate asset has been most "disrupted"?

Retail?
Office?
Housing?
Lodging?
6,000 - 10,000 Churches shut down last year

1. …Past performance is no indicator . . .
2. No business model is safe
3. Tech’s most profound impact is not direct
4. …every upheaval is an opportunity to create value (for direct competitors, as well as completely new uses)
What determines and protects the value of real estate assets?

Location  Accessibility  Visibility  Information  Regulation  Scarcity
Location is redefined shared mobility

Source: Schaller Consulting
Location is redefined by micro-mobility

Source: MicroMobility.io

Source: Hugh Malkin  May 2019
Location will be redefined by autonomous vehicles

~$1 trillion of value will shift across 13 cities
$ shift of residential property by Metro Area due to AVs

- Los Angeles: $277 billion
- New York: $189 billion
- San Francisco: $167 billion
- Washington: $88 billion
- Atlanta: $53 billion
- Chicago: $47 billion
- Miami: $41 billion

Source: Phil Levin
It’s already moving things (but no people yet)
Meanwhile, the old ways of moving around are becoming more valuable than ever.

<table>
<thead>
<tr>
<th></th>
<th>Millennials</th>
<th>Generation X</th>
<th>Baby Boomers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefer living within an easy walk of other places</td>
<td>50%</td>
<td>43%</td>
<td>38%</td>
</tr>
<tr>
<td>Prefer walking as transportation for work/school</td>
<td>32%</td>
<td>19%</td>
<td>13%</td>
</tr>
<tr>
<td>Prefer living in attached housing (townhouse/condo)</td>
<td>51%</td>
<td>44%</td>
<td>43%</td>
</tr>
<tr>
<td>Prefer walking as transportation for errands</td>
<td>62%</td>
<td>54%</td>
<td>53%</td>
</tr>
</tbody>
</table>

Source: National Association of Realtors
“Visibility” is redefined — digital channels are creating “local” businesses that don’t exist.
Tech is eroding the power of regulation, and the validity of zoning laws.
Or empowering new operators to subvert zoning within the boundaries of the law.

Sonder Raises $135 Million To Turn Airbnb-Style Apartments Into A Different Kind Of Hotel

Lyric raises $160 million in debt and equity to power the next generation of hospitality
Blurring the boundary between different uses…

Equinox Gyms to Add Co-Working to the Workout

Gym operator joins with Industrious to offer flexible workspaces alongside some of its fitness clubs
Creating new “vertical mixed use” projects…

What if someone stays for 4 months?
Facilitating more intensive use of existing locations.

Spacious is a network of workspaces spread across the city. Members have access to every location, high-speed wifi, complimentary coffee, all the outlets they need to stay productive, and space to host guests and small meetings.

START WITH A $5 TRIAL DAY
“Unbundles” tasks that used to require space within apartments
Even hospitals… are being unbundled into prefabricated pods that provide prescriptions and drugs.
Meanwhile, hardware also helps to create more spaces and make the real world more playful.

Sources: Dezeen / NYT
Fitting more people into traditional office floor-plates.
Or residential floor plates…
...through a combination of hardware & software

<table>
<thead>
<tr>
<th>Acquired Company</th>
<th>Business</th>
<th>Invested Company</th>
<th>Business</th>
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</thead>
<tbody>
<tr>
<td>Teem</td>
<td>Meeting room management software</td>
<td>The Wing</td>
<td>Coworking space for women</td>
</tr>
<tr>
<td>MissionU</td>
<td>Training and education (college alternative)</td>
<td>Luna Lights</td>
<td>Automated lighting safety system</td>
</tr>
<tr>
<td>NakedHub</td>
<td>Coworking operator in China</td>
<td>Hargol</td>
<td>Protein from grasshoppers...</td>
</tr>
<tr>
<td>Conductor</td>
<td>Content marketing platform</td>
<td>Victor Tech</td>
<td>Small business marketing</td>
</tr>
<tr>
<td>Meetlp</td>
<td>Social events platform</td>
<td></td>
<td></td>
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<tr>
<td>Flatiron School</td>
<td>Education and tech training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unomy</td>
<td>Sales &amp; Marketing Intelligence Platform</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spacemob</td>
<td>Coworking operator in Singapore</td>
<td></td>
<td></td>
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<tr>
<td>Fieldlens</td>
<td>Communicating &amp; collaboration for construction teams</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Welkio</td>
<td>Visitor registration</td>
<td></td>
<td></td>
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<tr>
<td>CASE</td>
<td>Virtual design and BIM</td>
<td></td>
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Software makes networks of buildings worth more than the sum of their parts.
Software can connect networks of buildings to create value in other unexpected ways.
Not just in a few years, but also very soon.
And in ways that can benefit the environment and generate new revenue

Alternatives

GLP-Brookfield joint venture aims to become China’s top rooftop solar power provider

By Douglas Appell · March 21, 2018 10:03 AM · Updated 10:06 AM

GLP, a global provider of logistics facilities based in Singapore, and Brookfield Asset Management established a 50-50 joint venture to develop and operate solar power capacity on the rooftops of logistic and commercial facilities in China.
Turning buildings from power consumers to power producers.
Software adds new layers of service and community on top of existing buildings...
Landlords are trying to remain relevant by offering flexible solutions for small tenants.
Or partnering with new companies to develop and operate new projects
Real estate is also becoming personal in other ways… Landlords are becoming “Datalords”.

- Security Cameras
- Motion Sensors
- Access Control
- Air Quality Sensors
- Smart Lighting
- Network Infra
- Voice Assistants
- Tenant Apps
- Smart Bathrooms
- Workplace Robots
- Smart Desks
- Smart Screens
A variety of (creepy) tools and business models are already in place.
All this new data is a goldmine...

- Gender
- Mood
- Health
- Income Level
- Relationships
- Interests
- Productivity
- Ethnicity
Data is enabling new operators to reduce rent and monetize their communities in other ways…
it brings unprecedented liquidity to real estate markets
(starting with single family homes)
Powering tens of thousands of transactions a year

Homes Purchased in 2018

Source: Mike DelPrete
Data is setting the foundation for new kinds of real estate fund managers.
But data is also a time bomb: introducing new financial, reputation, and political risks.
There is a high price to pay…
Venture capital is becoming real estate capital…

<table>
<thead>
<tr>
<th>Investor</th>
<th>Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andreessen Horowitz</td>
<td>Cadre, Zumper, Point, and PeerStreet</td>
</tr>
<tr>
<td>Greylock Partners</td>
<td>AirBnB, Matterport, Zumber, LiquidSpace, Dynasty, NextDoor, Otto</td>
</tr>
<tr>
<td>Sequoia Partners</td>
<td>Skyline.AI, Ziroom, Urwork, 24tidy, Dongpeng, Linshimuye, Plateno</td>
</tr>
<tr>
<td>Khosla Ventures</td>
<td>Cadre, OpenDoor</td>
</tr>
<tr>
<td>Union Square Ventures</td>
<td>Flip.Lease, RealtyShares</td>
</tr>
<tr>
<td>SoftBank</td>
<td>WeWork, Katerra, Compass, OYO</td>
</tr>
<tr>
<td>Benchmark</td>
<td>WeWork, Nextdoor</td>
</tr>
<tr>
<td>Accel Partners</td>
<td>Housetrip, Duetto, Fabhotels, Hotel Tonight, Hotelogix</td>
</tr>
<tr>
<td>General Catalyst Partners</td>
<td>AirBnB, Bowery, Cadre, RealtyShares</td>
</tr>
<tr>
<td>NEA</td>
<td>OpenDoor, CVent, 42Floors, Zumper</td>
</tr>
</tbody>
</table>
...and real estate capital is becoming venture capital.

- Invitation Homes, a tech-driven housing management venture
- Invested in VTS, Entic
- Acquired The Office Group

Brookfield
- Invested in Convene
- Set up a $300m venture capital fund to invest in technologies and platforms that affect its

GIC
- Invested in JustCo, a coworking operator
- Invested in Nova, a rental / coliving / residential management platform
- Set up the Bridge Forum to connect Asia property investors to Silicon Valley
Let’s recap

1. The traditional defenses are losing their power — location, accessibility, visibility, zoning, capital, information.

2. Boundaries between asset types are blurring.

3. Competition is shifting to new dimensions — flexibility, service, meaning.

4. The value of an asset is increasingly dependent on its operator.

5. Real Estate assets can be monetized in new and exciting ways.

6. Networks of buildings can create new synergies and value.

7. Companies of various sizes and kinds are suddenly in direct competition.

8. An abundance of venture and PE capital is funding the transformation of the industry.

9. The Channel is becoming as important as the Product.
The traditional Real Estate value add distribution

- Components
  - Mechanical
  - Design
  - Engineering
  - Ops Software

- Value Chain
  - Asset Management
  - Property Management
  - Marketing / Brokerage

- Distribution
  - Online Listings

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The Real Estate Smiling Curve

Value Add

Components

Creative Concept
Software
Data & Analytics
Smart Components
Ops Software
Property Management
Asset Management
Flexibility
Curation

Value Chain

Components

After Sales & Distribution

Asset / Owner
How to make the most of it?
Back to Churches: What made them so successful to begin with?

1. Focus on the needs & aspirations of specific individuals
2. Have a tangible and intangible value proposition
3. Take the physical world is a given, focus on what’s missing
4. Constantly reconsider your alliances & adversaries
5. Leverage network effects (a platform, not an individual asset)
6. Obsessive dedication to documentation and data
7. Align the incentives of all stakeholders
8. Treat uncertainty is an ally
Thank you.

Questions?
What’s happening with humans?
In recent decades, nearly all of global population growth has been concentrated in cities with a population of over 1 million, where about 20% of global population currently lives.
About 10,000 people turn 65 in the US each day. The home ownership rate for these retiring Baby Boomers is 75%.

**TABLE 1**

Homeownership among Baby Boomers, Gen Xers, and Millennials in 2015

<table>
<thead>
<tr>
<th>Generation</th>
<th>Years born</th>
<th>Age</th>
<th>Population</th>
<th>Current homeownership (%)</th>
<th>Homeownership at age 25–34 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Millennials</td>
<td>1981–97</td>
<td>18–34</td>
<td>75,170,263</td>
<td>32.2%</td>
<td>37.0%</td>
</tr>
<tr>
<td>Gen Xers</td>
<td>1965–80</td>
<td>35–50</td>
<td>66,441,487</td>
<td>60.4%</td>
<td>45.4%</td>
</tr>
<tr>
<td>Baby boomers</td>
<td>1946–64</td>
<td>51–69</td>
<td>74,649,971</td>
<td>75.0%</td>
<td>45.0%</td>
</tr>
</tbody>
</table>

_Sources_: 1990 and 2000 Decennial Censuses and the 2015 American Community Survey.

1 Pew Urban Institute
The US median house price is around $300,000. Assuming 10% of them are planning to move once they retired — that’s $300 million in housing stock hitting the market per day.
General home ownership is close to its lowest point since the 1960s, especially for those under 30.
Even more broadly, the symbolic role of a “home” as a way to define oneself and communicate values is changing.

CRITIC'S NOTEBOOK

The Existential Void of the Pop-Up ‘Experience’

I went to as many Instagramable “museums,” “factories” and “mansions” as I could. They nearly broke me.
But “millennials” are not the only ones with declining home ownership. Other generations are increasingly renters as well.
Rent is outpacing income growth, encouraging people to live with roommates. In big cities, sharing an apartment can lead to dramatic savings.

**Manhattan**

<table>
<thead>
<tr>
<th>Monthly Rent Living Alone*</th>
<th>$2,745</th>
</tr>
</thead>
</table>

**SAVINGS FROM SPLITTING A 2-BEDROOM**

<table>
<thead>
<tr>
<th>$795</th>
<th>19% OF ANNUAL SALARY</th>
</tr>
</thead>
</table>

**SAVINGS FROM SPLITTING A 3-BEDROOM**

<table>
<thead>
<tr>
<th>$980</th>
<th>23% OF ANNUAL SALARY</th>
</tr>
</thead>
</table>

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[StreetEasy](https://www.streeteasy.com) [Trulia](https://www.trulia.com)
As a result, the number of adults living as roommates had almost doubled over the last 30 years, including with relatives.
Many are living with roommates well into their 30s and 40s. A record number of people live in multigenerational households.
Even death does not take as much space as it used to...

- Price
- Flexibility (moving)
- Environmental concerns
- Faith & Religious Acceptance
- First step in other ways to remembers

Source: BBC / CANA

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May 2019
In the US, about 50% of adults are married, down from 72% in 1960. Marriage rates vary significantly with level of education.
Which means the average number of people per household is declining — from 4 people 100 years ago to 2.5 today.
People’s professional lives are becoming more flexible

70% Of organizations allow some sort of Telecommuting

57% Of organizations allow some sort of Flextime

Source: SHRM
A growing number of companies are set up as fully distributed organizations (no HQ)
Scarcity of companionship and understanding, especially among younger generations
Depression and anxiety are higher than ever, taking a toll on the lives of hundreds of millions of people and exacerbating other medical conditions.
There is scarcity of meaning…

*The We Company*'s guiding mission will be to *elevate the world’s consciousness*. Living a conscious life means choosing to live proactively and with purpose. It means being a student of life, for life, where we accept that we are always growing and in a constant state of self-discovery, self-growth, and change.
A scarcity of agency…
Not just of things, but of experiences as well.
...and transparency into how things are made.

We believe we can all make a difference.

A scarcity of privacy.

IN THE FUTURE, EVERYONE WILL WANT TO BE ANONYMOUS FOR FIFTEEN MINUTES

Want to toss your smartphone? The perfect dumbphone is here

Sure, we all want to disconnect, but who can afford to? The Jasper Morrison-designed Punkt MP02 has the simple appeal of a dumbphone—but still connects to the internet.
And of dis-connectivity…