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# POLYCENTRICITY, TRANSACTION COSTS, AND SHARING: THE PLATFORM WORLD OF TOMORROW

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# SUMMARY OF A LARGER ARGUMENT

- Economists have found repeatedly that citizens are quite willing to contribute to provision of "voluntary public goods."
- Democracy, in the sense of occasional votes on large topics, is a cumbersome way to achieve local amenities such as bike paths, greenways, and people-scaled development generally. The "size" of municipalities and counties doesn't match well with modular, walkable development.
- But new opportunities are on the horizon, coming from an unexpected direction: Bitcoin. The currency itself is of little importance, but its key component, the blockchain, provides a radical solution whose implications we are just coming to understand. The reduction in transaction costs arising from "platforms," and the near-costless verification that comes from blockchain applications, should animate people-scaled development by private NGOs in partnership with existing local communities.
- In extending my recent book, TOMORROW 3.0, some of these new solutions are explored.



# POLYCENTRICITY

- Match the size of the jurisdiction to the size of the externality being controlled, or the public good being provided.
- Vincent and Elinor Ostrom's work on cities and voluntary local solutions resulted in a Nobel Prize in economics for Elinor in 2009.

# MOST OF WHAT WE “KNOW” IS WRONG: THE ANSWER IS TRANSACTION COSTS

- “Many policy analysts presume that without major external resources and top down planning by national officials, there can be no provision of public goods and sustainable common-pool resources. This presumption is wrong.”
- “The opposite prescription that local communities [or private market groups] will always solve collective-action problems is also wrong.”
- “If governance systems arrange polycentrically, from small to very large, collective-action problems are solvable on multiple scales. The costs of effective self organization are lower when authority exists to create institutions whose boundaries match the problems faced. External financial resources may increase the options available to a local community. [But] External resources are not the essential ingredient for building an effective public sector to provide local public goods and protect smaller scale commonpool resources. The results achieved have been grossly disappointing, for example solving local problems with the allocation of massive amounts of donor funds.”

(E. Ostrom, 2008, [http://dlc.dlib.indiana.edu/dlc/bitstream/handle/I0535/4417/W08-6\\_Ostrom\\_DLC.pdf](http://dlc.dlib.indiana.edu/dlc/bitstream/handle/I0535/4417/W08-6_Ostrom_DLC.pdf) )

# TWO ENTIRELY SEPARATE PHENOMENA, INTERLOCKING

- **Middleman Economy:**

Sell Reductions in Transactions Costs

- **Sharing Economy:**

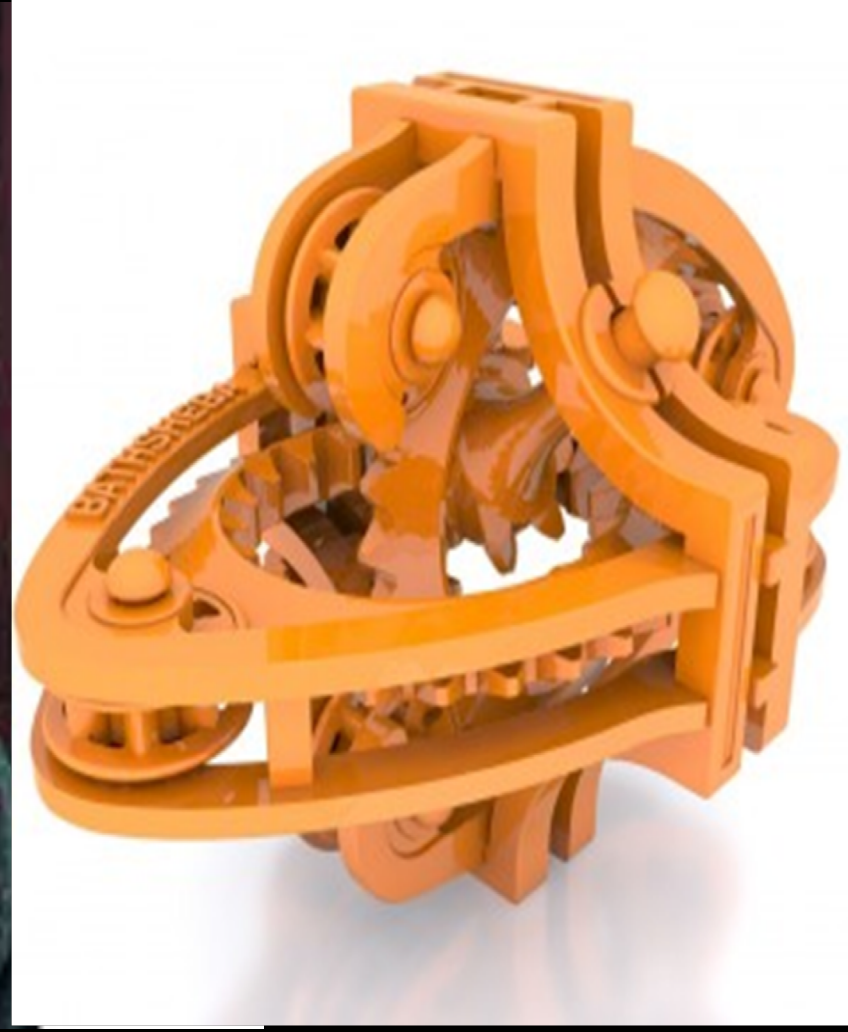
Sell Access to Excess Capacity

Level of Valuable Excess Capacity	Transactions Costs		
	Low	High, Reducible	High, Fixed
Low	Consumables	<b>Hipster Heaven</b>	Not a commodity
Moderate	Already shared	Marginally Profitable	
High	Already rented	<b>Best value proposition</b>	Personal: Toothbrush

DOUGLASS NORTH

RONALD COASE

A WIDGET





# BUY, RENT, BORROW, DO WITHOUT?

- Consider a widget



- A owns it, and will take any price greater than \$1.
- B wants it, and will pay any price less than \$5.
- What might keep this transaction from occurring?

# SELLING REDUCTIONS IN TRANSACTIONS COSTS

Let transactions costs be \$7.

***No transactions, and in fact A and B have never met and have never considered exchanging.***

But an entrepreneur, E, has a piece of software that reduces transactions costs by \$6, down to \$1.

# SELLING REDUCTIONS IN TRANSACTIONS COSTS

The transaction is now possible:

- B pays \$4 (would have paid \$5, gains \$1)
- A receives \$2 (would have taken \$1, gains \$1)
- E receives \$1 (zero marginal cost, gains \$1)
- Transaction costs use up \$1 (like friction in physics)

And the world is wealthier and more prosperous. Even with the same amount of widgets. No new widgets, just better use of the widgets we already have.



# TRANSACTIONS COSTS

- (1) **triangulation:** information about identity and location, and agreeing on terms, including price
- (2) **transfer:** a way of transferring payment and good that is immediate and as invisible as possible
- (3) **trust:** a way of outsourcing assurance of honesty, and performance of the terms of the contract.

# EXCESS CAPACITY

- My storage unit from Hell. My Garage. My Closets, and Cupboards.
- Excess capacity is variable with respect to the transactions cost of reassigning the use of the durable good.
- When I look at my closet, or garage, I don't see "excess capacity," I see storage of valuable items.
- But those suits, shirts, my car, my mower, all those things could be being used by someone else.
- LOWERING trans costs RAISES the opportunity cost of idle durable goods. But that doesn't translate into "excess capacity" until we have a way of selling reductions in transactions costs.
- There is no set "capacity." It varies with inversely with transactions costs.



# MARC ANDREESSEN SOFTWARE IS EATING THE WORLD—WSJ, 11-11

More and more major businesses and industries are being run on software and delivered as online services—from movies to agriculture to national defense. Many of the winners are Silicon Valley-style entrepreneurial technology companies that are invading and overturning established industry structures. Over the next 10 years, I expect many more industries to be disrupted by software, with new world-beating Silicon Valley companies doing the disruption in more cases than not.

Six decades into the computer revolution, four decades since the invention of the microprocessor, and two decades into the rise of the modern Internet, all of the technology required to transform industries through software finally works and can be widely delivered at global scale.





# SERVICE JOBS



<http://365days2play.com>

# THE DIFFERENCE: ONCE WE OWNED, NOW WE SHARE, BECAUSE SOFTWARE EATS THE WORLD

- Why own things?
- What you actually want is the stream of services that come from an item.
- But if you had access to that stream of services, why would you own?
- When I fly somewhere in the US, I rent a car. I don't buy a car.
- But I buy a laptop, and carry it with me. Why don't I rent a laptop, at the airport?
- "Gold" Software: No employees, except the guy who parks the car and the guy who checks IDs.
- "Laptopia": Different levels of quality, I rent one at my destination airport. Just scan my credit card, and my laptop comes down the chute. No employees, except the ones who put the laptop into the barcoded bin



**Bla Bla Car**


# Trusted ridesharing

Connecting people who need to travel with drivers who have empty seats

Choose the country for your rideshare

Confirm


 Deutschland

 España


 France

 India


 Italia

 Nederland


 Polska

 Portugal

 Türkiye

 United Kingdom

 Россия

 Україна

# UBER

- You need a ride
- I have a car, and some time
- It would be difficult for us to find each other, negotiate a price, have you trust that I won't attack you, have me trust you that you won't just rob me. And we would have to have some way for me to get paid, and for you to pay, that is convenient and prevents us from stealing each other's identity
- Entrepreneur could start a taxi company (production), selling service directly.
- Or could write a piece of software that helps A find B, and reduces the transactions cost of having them exchange



U B E R



# Fare Compare Uber. Lyft & Taxi

Team GoA2B Travel & Local

Everyone

This app is compatible with



# Fare Compare Uber, Lyft & Taxi

Team GoA2B Подорожі та місцева інформація

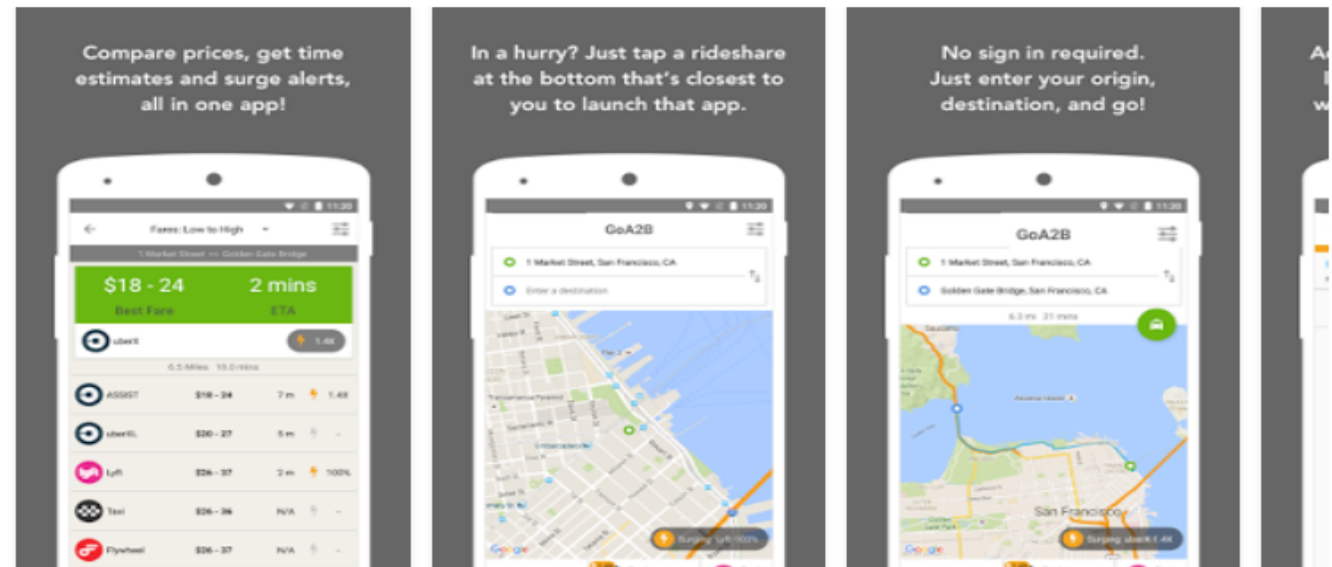
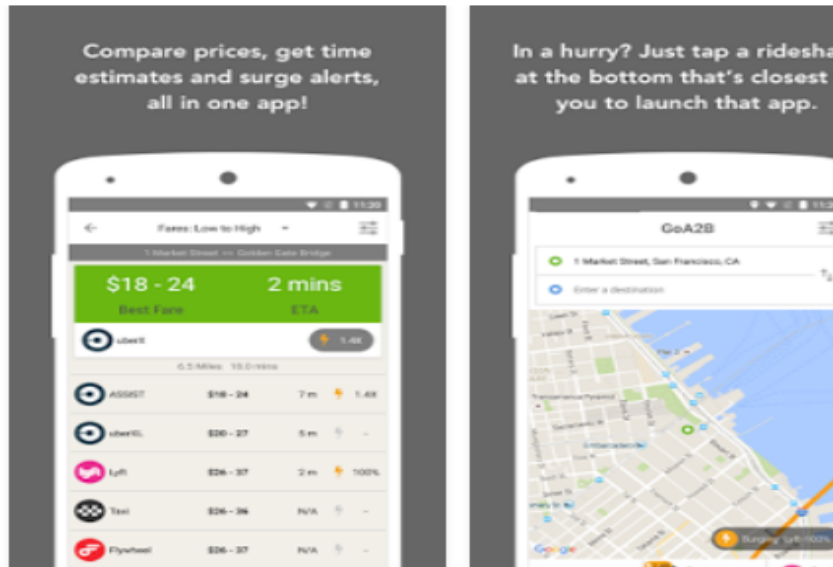
★★★★☆ 399

Для всіх вікових груп

Ця програма сумісна з усіма вашими пристроями.

Додати в список бажань

Установити



Constantly use rideshare services and wonder which service is the best? GoA2B (formerly Zailoo) - Your Rideshare Companion App. It compares prices and time estimates from all the major ride providers like Lyft, Flywheel



Скористатися Перекладачем Google, щоб перекласти опис такої програми українською

Перекласти





**A PRICE TAG HIGH  
ENOUGH THAT  
MAKES IT WORTH  
SHARING OR GETTING?  
A “bit” too far?**

**A POWER DRILL HAS  
CRITICAL MASS  
HUGE IDLE TIME BUT  
NOT EXPENSIVE  
ENOUGH**

# Decentralized Ledger





ARTHUR \$7

MARIA \$15

# SHARING, AND WALKING

- Density at a premium for sharing
- Rentals, peer-to-peer. Better quality, far less storage space
- Eliminate parking, closets, garages
- Open source software for tool libraries
- Community bicycles, scooters