

The 'sharing economy' will be environmentally friendly, efficient and allow us to spend a lot less on owning things. But, in the short term, there may well be casualties, says **MICHAEL MUNGER**

There have been two enormous "revolutions" in human history. The first was the Neolithic, or the wide scale switch from a nomadic hunter-gatherer lifestyle to fixed agriculture.

The second was the industrial, or the wide scale

The key reason is summarised by Adam Smith. It happened because of the division of labour and the benefits from expanding the horizon of economic co-operation from families, to villages, to nations, and then to the entire globe.

This is so obvious that it escapes our attention most

pluck a string on a piece of wood. In a city of 100,000 there are chamber orchestras. And in a city of 1 million there is a symphony orchestra with specialised instruments and professional musicians.

The next revolution will be like that, too. In fact, it's like that already.

WHY DO WE OWN, RATHER THAN RENT, SO MUCH STUFF? THE ANSWER IS TRANSACTIONS COSTS

concentration of production in processes that took advantage of division of labour and capital-intensive work.

The most salient features of both revolutions was unprecedented expansion: after the Neolithic revolution, cities developed and population increased in ways that transformed the landscape.

After the industrial revolution, production processes developed in ways that, within just a few generations, afforded a set of consumer items for the poor that were unattainable even for the wealthy just a century earlier.

In both revolutions, individual liberty, nutrition, and hygiene all suffered, for many people.

But the longer term consequences were that many more people lived on earth, they lived longer, and they had better lives. The increase in population and life expectation after industrialisation in Britain, for example, was extraordinary (see figure1).

of the time. In a tribe of 100, there may be someone who is skilled at beating bones on a rock. In a clan of 1,000, there may be someone who can play a flute while others

The sharing revolution

Because of division of labour, I can specialise in a narrow (though productive) activity, because I can rely on other people to specialise in other narrow (though productive) activities, making everything I need, from food to a nice woollen coat.

But until now this system has relied on ownership. We ended up with far more stuff than

TOMORROW 3.0

THE SHARING ECONOMY

...AND YOU



Figure1. England and Wales population growth

Date	Life expectation at birth for males (years)	Population
1850	41	18 million
1880	47	26 million
1910	56	36 million
1940	72	41 million



any of us actually needed, or could use. We store the stuff in closets, garages, and self-store containers.

Why? Why do we own, rather than rent, so much stuff? The answer is transactions costs. When I need an electric saw, I don't rent one. I go to my garage and find my electric circular saw. I only use that saw two or three times a year. But I still own one.

On the other hand, when I fly to Oklahoma to work on a video programme or give lectures, I don't buy a car; I hire one. Why do I own a saw, but hire cars?

The reason is that it has paid some entrepreneur to sell reductions in transactions costs, in the form of software. People can enter all their information, including preferences and payment information, into a database.

When I get off the plane, I get a text: "Your car is in space A39". So I can go straight from aeroplane to car. I just turn the key—which is already in the car—and drive to the gate, where they print my contract and check my ID.

Students in Canada no longer need to own cars even

if they want 24-hour-a-day access to four wheels. They simply join Student Car Share for about £30.

This kind of approach, combined with the kind of delivery service provided by Uber or Lyft, will soon revolutionise almost every aspect of our lives.

As transactions costs fall much of the "stuff" we now own will be rented or shared. Some of us will become "sellers" and some "renters", but overall each of us will need to possess far, far less stuff at any given time.

From owning to renting, from companies to people

The reason I own a power saw, instead of renting one, is that the transactions costs of renting are prohibitive.

Suppose I could open an app, choose "power saw," and press "rent". A driver somewhere picks up a saw from a hardware store, and conveys it to my security-coded delivery pod by the street. My phone beeps: "saw delivered". I go out, get the saw, use it, and return it to the pod. The pod tells another driver (no particular driver, just whoever is closest; I don't know who it

is, and I don't need to know) that there is a package to be picked up.

With sufficient density, the cost of the rental would be no more than \$3 or \$4. And there is no standing in queues for forms to fill out. Best of all, I would get a commercial quality saw for the period that I needed to use it. The relative benefit of "rent versus buy" is determined by transactions costs – a subject about which Ronald Coase taught us so much.

Most people are now familiar with Uber. This illustrates two points. The fall in transactions costs has made renting car time much, much cheaper – anybody can rent to anybody.

But there are also huge advantages from the division of labour involved. For many people, it may be cheaper to use Uber to take them to work than it is to own a car – and then they can work whilst

somebody else drives.

And millions of people who have not got great academic qualifications now have a market opening for earning money whilst driving other people around.

The biggest change in the software platform-driven revolution is that people will skip companies, except as middlemen. We are already used to this for AirBnB and Uber, both of which provide access to privately-owned services (rooms and rides, respectively) for private citizens.

All the software does is provide information, take care of security (through ratings and reputation), and process the transaction (removing most of the risk of robbery or renegeing).

But there are hundreds of other examples, relating to stuff you may not have thought of renting.

One company, Spinlister, brings together people who own but are not using for a day or a week, or more bikes, surf equipment and ski equipment. All three of these items are relatively durable, sometimes not used for long periods and expensive.

Some households have more stuff than they can use. Other households need stuff for short periods. With high transactions costs, the choices were either to buy (expensive in terms of cash and storage) or do without.

If an entrepreneur can sell the reduction in transactions costs through a software platform, private individuals will make much more intensive use of the stuff they already have.

Shortly, the result will be that many of us will have a lot less stuff. I won't need to own a laptop, a bike, a car, luggage... and maybe even clothes.

A company called RentTheRunway rents

"unlimited clothing and accessories" for \$99 per month. It's not really unlimited, of course. Customers can only have one of each item per category at a time. But when you are finished with the dress/shoes/purse you send them back. RentTheRunway takes care of the UPS shipping, and the dry cleaning.



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The downside

The good news is that we will all need a lot less stuff, to own or to store. The bad news is that....well, that's the bad news.

An economy geared towards making new stuff, in which entrepreneurs have always been focused on making new products or on making more old products more cheaply will be shaken to its foundations.

Instead of 90 million power saws sitting in closets and garages, we will only need 10 million. We will need far fewer

cars, fewer bikes, fewer just about everything.

Some people, probably a lot of people, will lose their jobs. And they will not get new jobs, at least jobs in the sense that we understand them. They may work "gigs" or temporary periods as part of teams, much like the construction industry or Broadway plays operate now.

Is this good or bad? As in the previous two revolutions, that hardly matters, because the economic logic is inescapable: it is just going to happen. Still, I think it is fair to say that for most people the effect will be positive.

Cities will not need parking spaces. Houses will not need garages or as many cupboards. Energy use in manufacturing, and the amount of waste produced from packaging and discarding broken or unused products will plummet.

Some people will lose their jobs and perhaps have lower nominal wages. But prices are likely to fall even faster, implying an actual increase in real wages. And many jobs and opportunities will be created.

Many Uber drivers are older people who really value the socialisation and the income it generates. Many who rent out Airbnb rooms will be single people or widows who might be capital rich and income poor. And the remarkable thing about a market economy, of course, is that we can never know what opportunities it will create in the future.

But the winning formula is, less stuff, less strain on the environment, better use of the stuff we have, and many prices close to zero. Tomorrow 3.0 is closer than you think.

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