Creative Destruction and the Sharing Economy

Uber as Disruptive Innovation

Schneider, Henrique

"I don't want to compete against someone wearing hobnailed boots."

If incumbents indeed believe they have the right to only compete against student start-ups it seems we might have too little and not too much 'creative destruction.'(Morten Olsen 2014)

Creative destruction, disruptive innovation, potentially revolutionary business models and regulation stopping them is what this book is about.

Creative destruction is a force in economic development first described by the Austrian-American economist Joseph Schumpeter (1883–1940) and developed in detail by the American economist and business scholar Clayton M. Christensen (born 1952).

Since the emergence of the digital economy, creative destruction is a widely used term. However, creative destruction and regulation more often than not are at odds with each other.

By definition regulation remains unchanged in order to ensure legal certainty and stability. Also by definition, regulation and regulators, when judging facts, interpret them as a function of the static regulation to which they are committed

First, regulation is static in nature and prefers the static over the dynamic

Second, regulation is backward looking

Past knowledge is its own frame of reference.

Because of the manner regulation is made it cannot incorporate future developments, including innovation

Their decisions have consequences for the future

There might even be a third reason for regulation being implicitly opposed to innovation. That is the role of vested interests. Regulation often protects those companies that are already active in a given market over newcomers

Often, market agents begin as innovators and drivers of creative destruction, but once they gain a standing in the markets, they develop an interest for protecting their achievements.

WHAT IS THIS BOOK ABOUT?

Uber's behavior as an economic agent has consequences on people and other companies as well as on the economy and society as a whole

Maybe the case of Uber shows that the more diversified a company innovates, the stronger agent of creative destruction it becomes

Regulation can be broadly understood as the entirety of a legal system. It can also be thought of as sectorial regulation envisaging setting standards, for example, for the quality of services provided or the security of customers. Regulation can also be about some types of market processes, for

example, about competition. The case of Uber shows that regulation can be an amalgamation of all three

Maybe the case of Uber shows that the finer-grained the regulation, the more adverse effects on innovation it creates

Maybe the case of Uber shows that the more innovators adapt to regulation, the more vulnerable they become to creative destruction by even newer agents with even more disruptive innovation

1. What is the economics of Uber (and of this book)?

The economics of this book relies on two fundamental ideas. The first is that individuals are free to act, which means that they are free to choose between alternative actions but are at the same time responsible for their choices. The second is that the notion of a market is best understood as an open-ended, multi-polar, non-determined series of processes

This conception of economics is typical of the Austrian School in Economics

1.1.1 Austrian School in Economics

Mainstream economics is primarily concerned with the results of markets. It subscribes to the idea that markets, macro and micro, tend toward equilibrium. This means that there is an ideal configuration of price and quantity that clears the market. When this configuration is achieved, the interests of all market agents are optimally fulfilled

And how do economists and regulators know the equilibrium configuration? Well, mainstream economics determines that at least theoretically, equilibria configurations for markets can be determined or calculated, even beforehand, by using market data and analytic tools

Austrian economics – among other heterodox approaches – disagrees with most of this

For most Austrian economists, it is the preconditions of market processes that matter. These are individual decision-making processes, innovation, subjective discovery of utility, cost or exchange possibilities as well as forms of cooperative practices

Boettke (2008) identifies the following ten main propositions that are common to so-called Austrian economists

1. Only individuals choose

2. The study of the market order is fundamentally about exchange behavior and the institutions within which exchanges take place:

3. The ‘facts’ of the social sciences are what people believe and think

4. Utility and costs are subjective

5. The prices are relative in nature and are relative to the individual economic agent.

6. Private property in the means of production is a necessary condition for rational economic calculation: without private property, the individual is not able to reflect all subjective calculations of utilities and costs of choices into the decision to act.

7. The competitive market is a process of entrepreneurial discovery

8. Money is non-neutral: as money enters the economy, it influences relative prices

9. The capital structure consists of heterogeneous goods that have multi-specific uses that must be aligned

10. Social institutions often are the result of human action, but not of human design:

Carl Menger (1840–1921) came up with the important principle of Austrian economics: the economic values of goods and services are subjective in nature. Bluntly put: what is valuable for you may not be valuable for your peer. With an increase in the number of goods, their subjective value for an individual diminishes

A characteristic feature of the Austrian approach to economic theory is its emphasis on the market as a process, rather than as a configuration of prices, qualities, and quantities that are consistent with each other in that they produce a market equilibrium situation

Markets cannot be judged by their results because there are no results just stages of the processes

Therefore, the descriptive term market is understood here as just an abbreviation for (or even a metaphor denoting) a whole conglomerate of processes, interactions and exchanges between individual entities that engage therein freely and without ex ante central coordination

While the Austrian approach sees the rules of an institution or of a process as emerging from the cooperative social practice that leads to that institution or process, the mainstream approach sees markets as an initially designed institution. Designed by whom? By the regulator; mostly by the state

1.1.3 Individual Action

As discussed above, contrary to most other approaches in economics, the Austrian School is not primarily concerned with market institutions, social welfare, money and such, but with actions, adaptations, responsibility, information (beliefs) by the individual or by a voluntary group of individuals and how factors impact on these agents, distorting their decision-making.

entrepreneurship converts the theory of market equilibrium into a theory of market process

The distortion of the individual's liberty to decide and to act begins there, where regulations are dictated to individuals without giving them a say or the opportunity to decide otherwise.

the conception of the market as processes is its most important tool.

1.2 SHARING ECONOMY AND ITS NOVELTY

1.2.1 Sharing, Collaborative or Cooperative?

The core business idea involves unlocking the value of unused or underutilized assets ('idling capacity') whether it's for monetary or non-monetary benefits

The customers on the demand side of the platforms should benefit from the ability to get goods and services in more efficient ways that means they pay for access instead of ownership

1. The core business idea involves unlocking the value of unused or underutilized assets ('idling capacity') whether it's for monetary or non-monetary benefits.

2. The company should have a clear values-driven mission

3. The providers on the supply side should be valued, respected and empowered

4. The customers on the demand side of the platforms should benefit from the ability to get goods and services in more efficient ways that means they pay for access instead of ownership.

5. The business should be built on distributed marketplaces or decentralized networks that create a sense of belonging, collective accountability and mutual benefit through the community they build

Collaborative Economy: An economic system of decentralized networks and marketplaces that unlocks the value of underused assets by matching needs and haves, in ways that bypass traditional middlemen.

Sharing Economy: An economic system based on sharing underused assets or services, for free or for a fee, directly from individuals.

through technology, taking place in ways and on a scale not possible before the internet.

On-Demand Services: Platforms that directly match customer needs

Three different types of drivers in the sharing economy: economic, technological and societal.

Economic drivers are: monetization of excess or idle inventory and capacity; increase in financial flexibility; preference for access over ownership; and influx of venture capitalist funding.

Technological drivers are: social networking; mobile and devices platform; and e- or online payment systems.

There seems to be less consensus about the societal drivers of the sharing economy. Some researchers tend to use the following, or at least some of them: increasing population density; drive for sustainability; desire for community; and generational altruism

So, it is not the economics that changed with the sharing economy, but it is technological innovation that gave speed and scale to the dispersion of typically economic ways for individuals and groups to pursue their subjective preferences, to minimize their subjective costs and to learn from themselves and from others in the market process

it is not a question of novelty, but one of scale

1.2.2 Not So Novel

If population density raises the cost of maintenance, the more density increases, the more individuals will generally prefer to pay for access rather than ownership. This reaction to population density often also increases the efficiency of how resources are employed

The sharing economy is a reaction to market failures

The sharing economy is nothing more – but also nothing less – than a pragmatic arrangement of individuals or groups to a changed or improved technological environment

Those individuals that first combined their business models with the new opportunities created by technology were not meaning to change the foundation of economic exchange. To the contrary, they were taking advantage of a moment

1.3 THE CASE OF UBER: IS UBER PART OF THE SHARING ECONOMY?

The one special element of Uber, at least as it began, was the conscious decision not to buy any cars, but to look for partners with their cars and bring their idle capacity into a network. This is what may be called the differentiator in Uber's idea

While from a managerial and business point of view this is a good idea because it diminishes the amount of assets and the costs related to their maintenance and amortization (and cuts labor costs too), from a purely economic point of view, there is nothing revolutionary about it.

In this case, Uber is not an archetype for anything. It is just a successful company. Others do not consider Uber a part of the sharing economy at all

The role that technology plays is important. With the development of online networking, e- and online payment methods as well as individual online mobility, many business models gain scale and scope.

2. WHAT IS UBER'S BUSINESS MODEL?

'Cutting out the middleman.' No. That is not Uber's business model. In fact, it is quite its contrary. Uber re-intermediates the taxicab market

For some economists, intermediaries as such are a problem. For example, Akerlof in his seminal article, 'The market for lemons' (1970) claims that intermediaries have a perverse incentive to be dishonest. They have more information than the other agents in the market processes and therefore can use this to their advantage.

But then there is yet another economic intuition. It is the one calling for specialization. No economic agent is fully self-sufficient. If that were not the case, there would be no newspapers, teachers or even books, for these are all intermediaries, or dealers of information. An economy with specialization presupposes, therefore, some amount of intermediation and with that some asymmetry of information.

These three elements together – intermediation, allowing access to idling capacity and technology – together with a peculiar definition of transparency, some marketing and the negative perception of the taxicab industry at large, explain Uber's success

In the second sense of intermediation, Uber aggregates information about the suppliers of transportation, that is, the drivers

2.1 OF TAXICABS AND STRATEGIES

2.1.1 A Short History of Taxicabs

Taxis were impeded in competing over price since all tariffs were fixed and capped. Also, there was no competition over quality since even the exact car models allowed for taxiing were regulated. Taxi companies became less and less entrepreneurial.

2.1.2 Rationales of Regulation

Uber began, it had neither a medallion nor a license, since it considered itself a technology company, or a matchmaker platform and not a transportation business

The regulatory question about the character of Uber can be answered in two different ways. If the criterion is its customers, Uber is a provider of transportation just like taxicabs and limousine services. If the criterion is the product as such, that is, the service, then Uber, at least in its initial form, is not comparable to the other agents of the taxicab industry. Which criterion applies is a political decision.

2.1.3 Startup and Strategy

define strategy as follows: 'Strategy is the direction and scope of an organization over the long-term: which achieves advantage for the organization through its configuration of resources within a challenging environment, to meet the needs of markets and to fulfil stakeholder expectations. '

Strategy, then, has to provide answers to questions like: Where is the business trying to get to in the long-term (direction)? Which markets should a business compete in and what kind of activities are involved in such markets (markets, scope)? How can the business perform better than the competition in those markets (advantage)? What resources (skills, assets, finance, relationships, technical competence, facilities) are required in order to be able to compete (resources)? What external, environmental factors affect the businesses' ability to compete (environment)? What are the values and expectations of those who have power in and around the business (stakeholders)?

2.2 UBER'S BUSINESS MODEL

And this is also the idea – at least, at its beginning it was – behind Uber. Private cars that aren't used to their maximum capacity can be rented by third parties, much like a taxicab

Uber started and defined itself as the technology provider, that is, an intermediary, offering the software needed to match the demand and supply of capacity spots in the private market for locomotion

2.2.1 Uber's Strategy

Uber didn't officially launch until June 2010. The initial launch city was San Francisco. The company's founders invested 200,000 dollars as seed money

As of April 2016, the service is available in over 60 countries and 404 cities worldwide

it plays the role of matchmaker, matching a driver/car with a customer looking for a ride

Its value-add comes from the screening that it does of the drivers/cars (to ensure both safety and comfort), its pricing/payment system (where customers choose the level of service, ranging from a car to a limousine, are quoted a fare and pay Uber) and its convenience (where one can track the car that is coming to pick one up on one's phone screen

An attempt at analysing and systematizing the elements of Uber's business model follows. There are five main elements: (1) Uber's role as a two-sided intermediary; (2) its instruments of intermediation; (3) its technology; (4) its pricing; and (5) its marketing

Uber saw a largely unperceived opportunity to revolutionize a technologically stagnant industry and uncovered a way of using innovation through technology to challenge the way the transportation industry works, which has left established firms vulnerable

These firms yield returns that are regulated by the government, and as a result, there is very little incentive to invest in improving the riding experience. These companies do not invest in innovation as a priority and have assumed the industry will not change

Uber quickly exposed the vulnerability of this stagnant industry

In order to guarantee quality, Uber has a driver monitoring program. Its users can see driver rankings and make decisions about different drivers for their commute. This ranking system motivates the drivers and sets high standards for the Uber experience differences between Uber and the 'traditional taxicab' industry

Barriers to market entry: Uber poses none

Levels of service: while traditional taxis must offer the one standard and regulated level, Uber has a variety of different service levels, for example, UberBLACK, UberSUV, UberX, UberPOP and so on

Pricing: while taxicab prices are high and static, set or capped by regulation, Uber's pricing is generally lower and dynamic allowing for more influence by the market process

Tipping: expected in traditional taxis and should amount to 10 to 20 percent of the ride price. Uber only accepts credit cards.

Price estimation: Uber provides customers with an estimated price before the ride, taxicabs do not

Professionalism of drivers: Uber drivers are rated.

Quality and cleanliness of vehicles: taxicabs face regulation regarding these criteria, so they will opt for complying with the standards

Driver feedback: taxis have none, Uber has automated feedback.

What is Uber's business model? Uber capitalizes on convenience. In order to do so, it identifies idle capacity, aggregates it and allocates it to consumers willing to pay the price. Uber is an intermediary of idle capacity.

3. CREATIVE DESTRUCTION & DISRUPTIVE INNOVATION

3.1 SCHUMPETER'S CREATIVE DESTRUCTION

It is imaginable that creative destruction, in the end, will destroy the creator himself (think of Atari and video games

It is equally imaginable that creative destruction will lead to monopolies (as in the case of Microsoft)

And it is also possibly the case that creative destruction can lead to more competition or even freer markets. This is the case of photography, where the duopoly of Kodak and Fuji has been broken by different technologies and ultimately by the smartphone allowing everyone to take as many pictures as possible

Creative destruction is a fundamentally entrepreneurial activity. It is the art of taking advantage of a moment

3.2 CHRISTENSEN'S DISRUPTIVE INNOVATION

3.2.1 Using Disruptiveness

Creative destruction describes the potential impact of innovation

Christensen defines a disruptive innovation as a product or service designed for a new set of customers

the Sony Walkman destroyed the idea of music as something that can only be enjoyed statically. Yes, the quality of music was at the beginning often bad; but it soon caught up. The iPod destroyed the Sony Walkman as the idea of having a limited amount of music on the go. The iPhone destroyed the iPod and the idea of multiple devices per person

Other examples of disruptive innovation are: the personal computers that destroyed mainframe computers and are being destroyed by laptop computers (new market); the internet provides the disruptive technology that shops like Amazon need to destroy the business models of traditional full-service department stores (low end) and these stores themselves are destroying their traditional business through innovative marketing selling a lifestyle instead of products (new market); cellular phones are the disrupting innovation behind the destruction of fixed line telephony (what began as a new market is now also a low-end disruption); and retail medical clinics are destroying the traditional doctor's offices through disruptive innovations such as leaner processes, economies of scale and more affordable technology (low end)

The input is disruptive innovation and the outcome is the process of creative destruction

Creative destruction and disruptive innovation complement each other

An innovator must persevere for a long time until its novelties have a foothold in the market processes and start disrupting them. If an innovation is truly disruptive, it affects all agents on the supply side. More precisely, it will drive (most of) them out of the market

This destruction often comes at a cost, but it very often leads to overall economic growth and makes people's lives better. Over time and in an empiric claim ex post, societies that allow creative destruction to operate grow more productive and richer

3.3.2 Stopping Creative Destruction

What are creative destruction and disruptive innovation? Creative destruction is the overall process of change and adaptation of actual industries to novelties. Many traditional business models are driven out of the market processes by new technology, new forms of production, new marketing and new business models. Disruptive innovation is primarily technology-backed innovation starting at the low end of markets or creating a new market foothold. This innovation changes the whole character of market processes in which it is exchanged. It makes it impossible for the marker processes to exist without it. Both are open-textured processes with non-determinate and no determinable possible outcomes. If a specific innovation was disruptive and if it creatively destroyed any industry can often only be stated during the process and not at its beginning. Is Uber an agent of creative destruction? Uber's business model innovates on different levels. It lowers costs, it increases quality, it optimizes idle capacity and it has 'flashy' marketing. If that is enough to destroy the whole taxicab industry remains to be seen. Actually, it is unfolding disruptive energy and many taxicab providers have already adapted their value propositions to

include many of Uber's elements (app, rating, surveillance, among others). But because of this disruptive energy, many incumbent taxicab companies are trying to stop Uber by using regulation. It is not the task of regulation to stop innovation, but that is what Uber's competition expects it to do.

4. ARE INNOVATION AND REGULATION OPPOSITES?

Most of the time, most regulation does not want to directly impact the outcomes of markets. Usually, regulation just wants to set the rules for markets. According to the logic behind regulation, market agents are free to engage or not as long as they act in conformity with the rules – that are the same for everyone.

There is another facet of regulation that at least raises some suspicion. It is neither its aim nor its task to curb or stop innovation or creative destruction. But many private agents use regulation against Uber for precisely that end. These agents recognized that regulation has at least a detrimental effect on disruptive innovation. Possibly, this detrimental effect not only touches disruption but all innovation.

4.1 THE DILEMMA OF PRO-COMPETITIVE REGULATION

4.1.1 Level Playing Field

There are two so-called pro-competitive arguments.

First, equal regulation for all agents of a sector guarantees the equal chances of all agents.

The second so-called pro-competitive argument is that in most places, regulation legitimizes those businesses operating under it.

The 'level playing field' argument assumes that regulation and regulation-induced costs are exogenous and homogeneous

Therefore, regulation and regulation-induced costs affect all relevant firms in similar ways

Exogeneity means that something completely outside the individual firm's realm and influence affects the firm

Homogeneity denotes the property of regulation-induced costs to affect all regulated firms equally

Regulatory capture happens when a regulatory agency, formed to act in the public's interest, eventually acts in ways that benefit the industry it is supposed to be regulating, rather than the public

The fundamental challenge faced by this argument is as follows: if there is a need for equal regulations and equal prices, why is there a need for multiple providers? If there is a need for a single price, and if there is a need for uniform service levels, insurance, wages, why then is there a need for a market at all?

4.1.2 Sectorial Quality

The 'sectorial quality' argument assumes that only government-induced regulation can guarantee a minimum standard of quality (including insurance, safety and hygiene

Uber lets customers rate their experience, and these ratings are published transparently. This leads to differentiation between Uber and other mobility services, but also among Uber drivers themselves

4.2 THE CONUNDRUM OF COMPETITION REGULATION

Competition regulation first overtaxes the idea of the market per se and overstrains economic theory, and second, expects too much of the regulators, personally and institutionally

4.2.1 Problems with Models

Competition regulation relies on models of markets-as-institutions and welfare. And the problems begin: the object of competition regulation is competition – and not market processes.

Markets, understood as a series of processes and as an organizational principle, are different from competition as the normative outcome of a given institutional market

Competition regulation regards perfect competition as the state in which markets should be. Ensuring that the market remains in the condition of perfect competition is the goal and task of competition regulation (Posner 2009). Perfect competition means that the behavior of the individual agent in the market does not influence the market. 6 That is quite the contrary of what market processes are.

4.2.2 Problems with Institutions

Regulators – as institutions and individuals – regulate markets: they intervene in markets and thus influence market conditions as well as market results

4.3 THE CASE OF UBER: DOES UBER CHANGE BECAUSE OF REGULATION?

Let's state that regulation that directly intervenes in the market processes is generally in opposition to innovation.

4.3.1 Regulating Innovation

Not all regulation has negative side effects on innovation

Innovation by its very definition cannot be known before its materialization

By subjecting all agents to standards and models, agents have no incentives to innovate outside the standards and models, even if that type of innovation would bring them more benefits

4.3.2 Changing Uber

Uber's business model at the time of its launch was nothing more than the technology platform that intermediated supply and demand

As the firm started to grow, Uber started to give more directives to the drivers offering their services on the platform. These directives were about pricing, service, quality and even 'corporate identity.' These changes to the model were not regulation driven. They were growth-driven

Uber learned not only to take advantage of its own entrepreneurship, but also of regulation

Uber is diversifying and changing its strategy

Uber changed its business model because of regulation when introducing UberPOP. First, the technology platform is doing much more than allocating free capacity; it is paying fixed costs of the supply side's, that is, drivers, and paying them to offer their services

UberPOOL matches a rider with another rider who is travelling in the same direction. If a match cannot be found, riders are offered a discount on a regular Uber trip – in the United States only

By introducing UberPOOL and its integration with the classic Uber service, Uber as a company is showing once again that it is not just a technology platform, but also a transportation company

third example is UberBLACK, a limousine operation. UberBLACK cars are a more upscale service, but they rely on registered cars and licensed drivers

In some places of operation, especially in Europe, Uber is the entity buying the limousines

UberX services as a rent-a-car. This shows that the company is trying to arbitrage regulation

UberFRESH, a lunch delivery service

UberCARGO, a van rental service, in Hong Kong

But it is a valid point that, since regulation makes further advancement in the initial area of operation more difficult and more expensive, it is natural for Uber to seek expansion in less regulated and thus less difficult areas of operation

This, however, changes the nature of the firm that started as a technology provider. With the addition of these last two examples to its business, Uber morphed from a technology platform via a transportation company to a full-blown provider of logistics services

It is normal that Uber learns and adapts. But it might not be what regulation wanted. Regulation and its proponents wanted to transform Uber into a traditional taxicab company. Instead, Uber transformed itself into a much broader and deeper provider of logistics

Uber legally circumvented regulation by innovating itself

Uber is not only adhering to regulation, it is also 'capturing' it, influencing it to drive other taxicabs out of business

Conclusion

Uber has different ways to play regulation. First, it can abide by it, change its services and even its business model to comply. Many examples for this were quoted in Chapter 3. Second, Uber could try to navigate regulation in pursuit of regulatory arbitrage. One example is trying to operate services under a car rental instead of taxi regulation. Third, it can try to become too big to ban or too ingrained in the local distribution networks in those jurisdictions where it faces the danger of being banned. Fourth, if it is a political power or too big a company, Uber could use this advantage to influence regulation itself

It is interesting to note how Uber's strategy is changing with time. At the beginning, as it was the disruptive force, Uber stood against all and any regulation, defying it. As it became an insider, it started to adopt insurance and other quality policies similar to the direct – regulated – competition. And, as it turns to be a major force in the market, it endorses full regulation. This leads back again to the first argument, to the 'level playing field.' As Uber becomes a major supply

side agent in the markets, it starts to demand equal regulation for all. But since regulation is a political process and happens in dialogue with the industry, Uber invests in influencing regulators and regulation.

Where does that leave Uber now?

Uber itself, as soon as it entered the industry, became part of it by choosing not to jeopardize its own position and instead to roll back the creative destruction it started. As Uber was a small startup, it used disruptive innovation to destroy the market. It challenged regulation, regulatory bodies and its competition. The more it grew and the more of an insider it became, the more Uber accepted regulation (because with scale it had the financial means to comply). Now that Uber itself is one of the major forces in the market, it is the one influencing regulation, so that the taxi market will become more like a market for Uber

This means that from an agent of creative disruption, Uber will become one of the deterrents of innovation

In other words, by destroying creative destruction, Uber risks being destroyed itself