The sharing economy

Can the sharing economy's business model change our economic system and our consumerist society in the long term?

Projet Personnel des Humanités

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15/03/2016

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ACKNOWLEDGEMENT

Thanks to Krystyna, my tutor for this project

Thanks to Mathilde who introduced me to the sharing economy

Thanks to all my friends and family

INTRODUCTION

This project about the sharing economy came to my mind in late summer 2015, when I really got interested in politics and the world's economy. Back then, I was researching on different political and economic topics in the internet. As I am committed to act against climate change and to suggest new ways to organise our human life, I also researched on rising alternatives to the standard model. One of them was complementary local currencies, a very interesting and powerful tool to avoid crises and improve money's local impact. The other interesting topic was the sharing economy. This new type of economy has got mediatized a lot in the past months and years. Mainly BlablaCar, Airbnb and Uber made it into the news.

So why analyse this alternative? Our current neo-capitalist economic system lacks social components. The gap between social businesses and profit ones is huge, especially in terms of acknowledgement. A great way to notice this is to check the GDP's (Gross Domestic Product) formula. In most countries, environmental or social aspects are not taken into account for saying that a country faces a recession or growth. Hence I thought this sharing economy could be the renewal.

An alternative to the capitalist model was communism. It was based on the Marxist theories which stressed the common ownership which was about using or sharing common assets. This very sharing of assets sounds like the sharing economy. Indeed, the sharing economy is all about sharing goods, but it is done in a neo-liberal context. What I thought at the beginning is that the sharing economy was mixing the best of both worlds in order to create a more balanced economic model. In fact, I don't like extreme views or models at all, as I believe the world isn't only black or white, it is not binary. What I call the "neo-capitalist" model is the current system we live in. A system where the economy is not only built upon capital and optimizing manufacturing processes – as it used to be in the 20th century – but completely governed by the financial sector. The rise of speculation, stock exchanges and finance-only trades has led to a world economy ruled by virtual trades of the few, instead of material good trades of the many. With 97% of all trades being financial – hence only 3% about physical goods – the neo-capitalist system has forgotten reality. With physical goods, with human beings (and not numbers), with social and environmental criteria.

As a direct consequence of this finance based system and globalisation, we have ended up in a massively consumerist society. When social and environmental aspects are ignored, the world accepts waste, obsolescence and lower shipping costs for Paris-Shanghai than the ones for Paris-Brest. In our daily lives, this mass consumption is recognized as always-full supermarkets or fashion stores or tiny lifecycles for electronic devices.

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MAIN CAUSES OF THE SHARING ECONOMY'S BOOM

First things first, the sharing economy's massive rise in the last few years is due to the internet and the development of mobile devices. Without good broadband connections and mobile devices like smartphones and tablets, it could not have boomed. Now, at any time and place, you can use a sharing economy service, like call a driver with *Uber*. As humans are mobile, devices evolved leading to more comfort. Without the mobile connectivity, this business model – sometimes called "*Uberisation*" – has worked but it was more local and did not evolve much. People spend a lot of time away from home or their own PCs, so the ease of access and time of access would be smaller.

The 2008 subprime crisis[1] has changed a lot of people's minds. Some now consider their reaction as a loss of trust in the system. Hence, this is another reason for the boom. People wanted to take action in order to be less dependent on the world economy. In a globalized world, a crisis is more likely to also have consequences abroad, which can lead to more poverty, unemployment or higher prices. To avoid this, nothing better than sharing existing and already owned goods. Especially because many can be shared as they are not used on a daily basis. So people came together to either directly share goods or to create web platforms to simplify sharing for/with others. Eventually, people decided to go beyond lending power drills and started to share skills.

In the perfect continuity of the crisis and the neo-capitalist system, non-normal product obsolescence had to be addressed. In fact, there are two types of non-normal product obsolescence. First, planned obsolescence is a manufacturing choice to limit the product's lifetime to shorten lifecycles and hence increase sales. This type of obsolescence is indeed hard to prove, but some companies already got sued for it and observed common patterns constitute an empirical proof. Second, marketing obsolescence is a marketing strategy to shorten product cycles, the product itself still being absolutely functional. An obvious example is of course the smartphone industry which leads consumers to change their phones every year to get "the latest and best". This kind of obsolescence can also be related to the lobbying obsolescence, which through marketing and massive lobbying sends a product to the market abyss. It's not considered by the wide public; no communication gets through. An example is the *mooncup*, a non-waste silicon cup replacing tampons. All in all, all obsolescence types produce waste, real wasteful waste or simply unused devices. To avoid this waste and supporting this economy, sharing goods like power drills or printers is one way to do it.

Finally, the world currently faces the big challenge of climate change which could alter life on this planet as we know it. Parallel to this change, people have been mobilizing and have gotten more committed to change our societies than ever before. Solutions arise or simply spread thanks to the internet or movies[2]. This massive commitment now also leads to more motivation concerning the sharing economy. Sharing goods is a great way to oppose the consumerist model and to avoid waste in the broadest sense. It is a way to own less products and maybe help the environment with it. Sharing skills is all about a more social way of living, which is – and not only according to myself – needed in a more sustainable society. It is also fighting against waste thanks to people's repairing or building skills. Basically, it is all about avoiding or improving our finance-based economy.

[1] A great movie on the subprime crisis: *The Big Short*. It shows how the financial sector is virtual and above the so-called "real economy". It also shows how brokers' and investors' greed is harmful for the globalised world.

[2] A 2015 French movie, *Demain*, suggests solutions instead of talking about climate change consequences. They try to suggest actions available on an individual level as growing vegetables on free places in the city or use complementary local currencies to strengthen local farmers.

THE SHARING ECONOMY 101

In this short section, let us dive into the sharing economy, its definition, its biggest players and most of all its market variants.

According to *Wikipedia*[3], the sharing economy "is a hybrid market model (in between owning and gift giving) which refers to peer-to-peer-based sharing of access to goods and services (coordinated through community-based online services)". We can say that it is indeed a hybrid model because the meaning of ownership is altered compared to our consumerist society. Our current products are all ephemeral, they are intended to be replaced, not repaired, after some short time because of planned or marketing obsolescence. Now, every single person should own products, even if they are not used on a daily basis. The sharing economy acts as a mostly peer-to-peer – or C2C – model. People are able, through whatever means, to share their goods with others for a little contribution or sometimes none.

In 2016, the sharing economy has found its place in the economy. Not only are the services widely used, but former start-ups are now big companies, economically speaking. Indeed, the market's revenues are at $15 billion today and could hit $335 billion by 2025[4]. A revenue comparable to the $457 billion hotel industry revenue in 2011[5]. Big players like *Airbnb* or *Uber* are respectively valued at $25 and $50 billion[6], very high values for such young companies and comparable to the big Silicon Valley ones.

Of course, the sharing economy isn't only about one market. Indeed, it has spread over different ones:

+ Goods sharing (or lending) is not yet a big market but grows continuously. Let it be power drills, lawn-mowers or cars, people want to share assets that they only use for specific and sporadic situations. Some stakeholders are *Drivy* or *RelayRides* for lending cars, *LeftoverSwap* and *Supermarmite* for sharing leftovers and other food, *Streetbank* or *Zilok* to share devices like power drills.

+ Accommodation and housing has seen a huge rise in the last years thanks to *Airbnb*, where people share or lend their homes, and *Couchsurfing*.com where people give short and affordable accommodation to strangers.

+ Carpooling and sharing has also seen a massive rise in the last years, especially due to the rising petrol prices until 2008. Thanks to sharing economy platforms like *BlablaCar*, *Lyft* or *Uber*, people are now able to share cars with others or ask for a driver to move inside the city. All three companies have grown to becoming important and solid businesses.

+ Fund sharing or private fund finding has especially evolved with crowdfunding platforms like *Kickstarter* or *Indiegogo*. These enable people to fund their projects thanks to private individuals who get a quick return of investment related to the funded project. Another possibility is fund finding platforms like *Lending Club* which introduces investors and investment seekers.

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[3] Reference: Wikipedia.org
[4] Reference: PricewaterhouseCoopers, 2014
[5] Reference: Statista, 2016
[6] Reference: GE Look ahead, The Economist, 2015

+ Reselling or bidding websites have been on the radar for a bit longer. Websites like *Amazon*, *eBay*, French *LeBonCoin* or homemade products platform *Etsy* permit people to resell their goods or to sell self-made ones on one available platform.

+ Education has been evolving in the 21st century to a mixture of both traditional school lectures and so-called MOOCs (Massive Open Online Courses) where people share their knowledge with others in (sometimes great) notes. Good examples are *Khan Academy*, *Udemy* or *Openclassrooms*. Of course, commons like *Wikipedia.org* are also part of the sharing economy and often contribute to a deeper education. The only difference being that *Wikipedia* acts like a database and not as a structured lecture or tutorial.

+ Finally, skill sharing is now booming, partially because of obsolescence, short warranties and more complex devices' reparations. As always, people have gathered and formed groups like *Repair Cafés* or platforms like *Welp* to help others repair their devices or fix some household issues. There are also websites to simply exchange skills like math lessons for English classes.

In this project, I will mainly focus on C2C businesses as they are the ones that have boomed in the last few years.

SHARING AND SOCIAL: THE SHARING ECONOMY'S OPPORTUNITIES

1. Social Changes

When social networks came up a few years ago, nobody would have thought that they would succeed to change our societies. Eventually, they did it in a rapid and global way. Now, sharing every single moment of a day through thoughts or photographs has become normal to many, especially for the young. What social media really changed is our link to privacy, to personal moments. The sharing economy has been able to build upon this change too. People have got used to share, even very private or intimate moments with others and these others are not only friends or relatives. Platforms like short-messaging service *Twitter* or photo-sharing service *Instagram* are only based on the follower/following principle. Now, this may seem standard, but this behaviour is actually very special and has been extrapolated to the owning of goods. Indeed, social networks also have drawbacks, like virtualizing social exchanges and communication, but they still have succeeded to create more social humans. These humans are modern, always connected and most of all, evolving. Even online banks like *Consorsbank* in Germany have started to build their communication and marketing model upon digital social networks. Their slogans, “Banking as we live!”[7] and “Mobile just like you”, show that most 21st century societies have become social media-based. As they say in their TV commercial: why not share investment opinions and financial ideas if we share our meals with the world every day?

Another important component of the underlying social changes among the sharing economy’s boom is the positioning of trust-based services. Indeed, many sharing economy platforms use the rating principle to show their customers how the service provider is considered among former customers. Since these ratings – often represented with star or heart shapes – are only made-up by private individuals, the “trust-factor” had first to be accepted by and integrated in people’s minds. Eventually, starting with ratings on popular and already older websites like *Amazon.com*, the new sharing economy platforms take advantage of this trust. People have got used to trust-based services and are now themselves able to trust them[8]. As far as I am concerned, trust-based systems are a positive and very social way of handling service ratings. Nevertheless, we have seen massive fraud and companies specialized in enhancing reputation even got started. This has led to an approximate rate of 50% of fraud for online ratings[9]. I would not consider this issue as inherent to the system, but am supporting ideas to centralize and secure online rating systems through better software.

Not only do the sharing economy’s stakeholders share goods, but they also do with skills. Let it be in *Repair Cafés*, in *Fablabs* or on the Web, this exchange of skills is socially even stronger. This exchange is not only about common uses of certain assets; it enhances communication and “old-school” social exchanges. Considering the present challenges of world inequality reduction and climate change fighting, sharing skills is a great value and something that all humans should develop throughout the next decade. It could eventually help us all live in a better world, because we think as a whole, as a system, as one common species and not individuals that fight against each other.

All in all, the sharing economy partially succeeds because it develops some key values that could be more important than we now think: sharing, empathy, altruism, social exchange.

[7] Original version: “Banking wie wir leben!”
[8] The *Wired* reference is an excellent article on the inter-human-trust evolution
[9] According to the reference by P. Terrasse for the French Government and the report presentation at the commission in March 2016: https://youtu.be/UOE9ay2rIIg

2. Environmental Benefits

Considering climate change, the sharing economy was also able to benefit from people who wanted to be active and reduce their own waste. Sharing assets is a straightforward way of reducing mass-consumption-based waste. As stated by *The Economist*[10], "many peer-to-peer rental firms were founded between 2008 and 2010, in the aftermath of the global financial crisis. Some see sharing […] as a post-crisis antidote to materialism and overconsumption. It may also have environmental benefits, by making more efficient use of resources".

Some market variants are based on sharing devices like power drills or lawn mowers. Instead of having two devices for two households, both share the same one. This is not only a financial gain, but also an environmental one. Why? Because if the demand significantly shifts to the bottom, production will follow. On top of that, at the product life's end, energy consuming waste management will be less too. Obviously, there will be no significant impact if only one city shares their rare-of-use products, but the more people share these, the better it will be for mankind.

Another way of reducing greenhouse gas (GHG) emissions is to use crowdsourcing to define traffic congestions to optimize people's routes. This is exactly what the mobile application *Waze* is doing. I cannot state that this emission reduction is/was their primary objective (probably not), but traffic jams emit huge amounts of GHG because of constant stop-and-go situations. *Waze* is a very popular application and got acquired by Google in 2013, so the impact may be significant.

As the Wharton article[11] states, it is very hard to calculate the real environmental impact of sharing economy businesses. First of all, because of a lack of transparency (*Uber*, *Lyft* in San Francisco, CA) and second, because it is hard to quantify their activities. The experts at *Cleantech Group* have nevertheless tried and studied[12] the environmental impact of *Airbnb* on the environment. They state that *Airbnb* guests use 63 percent less energy than hotel guests, an energy surplus to power 19,000 homes for one year or 33,000 cars on US roads. This would obviously be a tremendous improvement!

Also, as stated in the article, San Francisco has seen a 50% decrease of taxi uses. Even though this decrease is compensated by Uber and Lyft cars, more modern cars should have more efficient engines and emit less GHG. Either, one part of the remaining 50% has gone to public transport solutions or they have been using sharing economy services. The first case would be a great improvement, the second one highly depends on what car is used – especially after the 2015 *Volkswagen Group* revelations.

As far as I am concerned, these services definitely have the potential to participate in decreasing GHG emissions. There are nevertheless some constraints, like using electric or "clean" vehicles for *Uber* drivers or to share home appliances with direct neighbours instead of driving to reach the other person. Another variant of the sharing economy helping to reduce waste and over-consumption are *Repair Cafés*, where smart and practical people help others to fix their devices. This can lead to a still working printer instead of throwing it away and buying a new one.

[10] Reference: The Economist, All eyes on the sharing economy
[11] Reference: Wharton, how green is the sharing economy?
[12] Reference: Cleantech Group, Airbnb's impact

3. Massive Open Online Courses and Education

Education is the basis of a healthy and well-balanced society. The sharing economy, supported by the internet, has brought MOOCs and a different way to get educational content. This way is, for some people, more convenient and modern, for others simply the only way of getting education. The principle is easy: people wanting to share their knowledge on a specific topic are able to create their own "classes" – written notes or video tutorials – and share them on platforms. Most of them are free and features that are charged for are often not compulsory to follow and learn. Some platforms even provide interactive lessons with quizzes.

MOOCs are a great way for people living in developed regions to improve their skills on their own and to test their ability to learn by themselves. It is also a good way for all of those who want to share knowledge to be able to do it on modern and adapted platforms.

Online classrooms are also a powerful tool for people living in remote areas or the least or less-developed countries. A lot of these don't have access to proper education. "In 2010, 69 million young people of secondary school age (10 to 16 years) did not attend secondary school"[13]. The 2000 U.N. Millennium goals have not seen the progress in education that was needed. Educational platforms like *Khan Academy* are an opportunity for these people to learn more and in a better way.

The question is: why is the sharing of knowledge on the internet so important? As we have seen in both paragraphs, platforms provide an interface between those who are able to share their knowledge in a very clear way and those who want to learn to improve their lives. This is the case for the developing countries and their lack of education, but also for unemployed people in the developed ones. In France, job seekers have free access to the entire set of features of *Openclassrooms*. This gives them the chance to either strengthen their skills in a specific domain or to teach themselves something new. Especially in the 21st century, where the digital revolution has got a tremendous pace, learning scientific, digital or computer science skills can be very helpful when looking for a new job.

[13] German Ministry: http://www.bmz.de/en/what_we_do/issues/Education/hintergrund/bildungsituation/

4. Economic Aspects

As always with the sharing economy, its individual stakeholders or customers are able to face a more social economy. As said earlier, the core values of sharing and social life have been stressed even more with these services. John Hawksworth, chief economist at PricewaterhouseCoopers, said[14]: "In some ways, the sharing economy is a throwback to the pre-industrial age, when village communities had to share resources to survive. They built up trust through repeated interactions with people they had known all their lives. Modern digital communications allow sharing to happen across a global village of consumers and providers, with trust established through electronic peer reviews". Ignoring the negative connotations of "throwback" and "pre-industrial age", I see a lot of positive aspects in this quote. The introduction stated that the neo-capitalist economic system was not enough focused on social and environmental issues. The sharing economy is able to change this if its stakeholders do things right. To put climate change in an apocalyptic scenario, we are all together trying to survive and for this we do need to share resources. Also, digital communication provides us with these extremely powerful tools to communicate, evaluate, rate and share thoughts with the entire world. Trust can now be established in the new digital environment.

As said in "The Sharing Economy 101", the sharing economy has not created a new market but has changed the way these markets work and provided people with a sharing alternative. This means a rise in competition in traditional sectors like housing and transportation. The barriers to entry have not been big (yet), so that they could grow and spread their model. As many of the new services are (only) platforms connecting consumers (C2C), prices for these services have stayed pretty low. Consumers aren't studying their personal business, nor using decision making methods. Since many people just wanted to get something out of their free assets, prices were fixed to cover main expenses, but not to get margins out of this business. Some even put the social aspect as their number one priority, like having communication and action during long trips by car. Standard capitalist economic models are more difficult to apply here. Nevertheless, standard game theory is not known (or they just don't mind) by many of the hosts, so if a "competitor" decreases its prices, others will follow; it is about *covering* more than *margins* and *social* before *finance*. In the end, the entire sharing economy branch has become a huge competitor for the traditional businesses. They mainly had to react to extremely aggressive prices compared to their own. And when one player doesn't think as a capitalist business, not knowing the consequences of price drops in game theory, the other member has to counter. So in the end, the end-consumers are winning because they get a more varying market choice, lower prices and eventually better additional services.

Not only are the end-consumers winning, but some active stakeholders or service providers are too. This is especially the case for people who are not able to have constant working hours, because they take care about family or other relatives for instance. These people are dependent on their primary activity – often non-paid and not taken into account for the GDP. The sharing economy's platforms offer them an opportunity to earn money within their flexible free time. Let it be for sharing leftovers or lending their cars when it is not needed. First of all, this is a way to earn a basic salary to enhance one's life. Second, this offers them the independency they need. In these very specific – but non negligible – cases, it would not be right to talk about job insecurity, but rather a precarious model adapted to people that already have a primary activity.

[14] Reference: PricewaterhouseCoopers, 2014

Another way to be independent is of course becoming an entrepreneur. Having an idea and motivation is in many cases not enough to create a fast-growing and stable business. Crowdfunding has changed this, as entrepreneurs are not obliged to give up company shares to get money. The advantage for the business is that the interests are material and related to the project. Hence, no personal goods are involved in the funding process, as is or can be the case with banks. Depending on the project, a drawback might be the fact that it must already be pretty specific, so that users kick-start the project. Crowdfunding is positive because a great project can immediately set up the customer base and have a basic advertising and communication platform on the one hand, and on the other hand be a motivating way to invest into a project of interest and get a return of investment shortly after.

Finally, the business model is also evolving to securing both the providers and many customers. First, the sharing model has evolved to introducing insurances for service providers, especially those who share their personal assets. Of course, accidents can always happen and wild parties at some Airbnb apartments did not keep the place in its initial state. Hence, the business model gets expanded with an insurance level, which can lead to possible earnings for the platforms, depending on how they intend to offer this insurance. But this level also secures the relationship between providers and consumers to, again, increase the trust factor even more. Second, popular services like *Repair Cafés* are helping people to save money and their devices. There are now 1001[15] *Repair Cafés* around the world where volunteering smart people try to repair all kinds of devices. Instead of throwing them away because of planned obsolescence and difficult repair conditions[16], *Repair Cafés* are a free alternative to fight back and avoid massive waste.

[15] According to repaircafe.org, 10.03.2016

[16] Projects like *Fairphone 2* show that we are able to make good & repairable devices

PRECARITY AND THE SHARING ECONOMY: ITS DRAWBACKS

1. Economic Uncertainty

The sharing businesses of course create jobs while growing and succeeding, but what kinds of jobs are created? First, there are standard jobs at the platform providers for software engineers or support managers; second, many jobs have been created because the sharing economy can be a source of revenue for its "host-customers". Indeed, many people have started to make a primary business with their personal assets thanks to the internet platforms. Some even quit their jobs, because they could earn more with *Airbnb*. It is not rare to see people lend their apartments on *Airbnb* instead of lending for longer periods. They can sometimes make more money and don't share this shelter, as many hosts do. The main question here again is about economic ethics and what differs between independent sharing economy jobs and traditional ones. In fact, traditional jobs are highly regulated, from a maximum work time to employment contracts over social safety nets and sick pay. It is also about regulated working hours and a constant monthly salary. Most sharing economy jobs are not regulated, not secured and not constant over time. People highly depend on these platforms and on on-demand fluctuations. This is what is called job insecurity or precarity. From my point of view, the precariat should be gone by now or extremely low, but it is not the case. Italy's recent "Jobs Act" and France's law project show that the liberalisation of the market is still a sought tool to decrease unemployment rates. As far as I am concerned, these decisions are only politically motivated, but are not the best in the long term. Unemployment rates decrease, parties or politicians get re-elected while more people have precarious daily lives.

On top of that, some jobs are also lost *because* of this model. This is the case for the automotive industry for instance where sharing cars means a lower demand for cars. This lower demand affects car manufacturers' productions and hence can lead to layoffs. Nowadays, many car manufacturers produce in Asia, hence these jobs would be lost there. Most sharing economy jobs on the other hand are created in the already industrialized countries for now. In a certain way, it is relocating jobs from Asia to Europe or the United States. This is positive for the unemployed people in Europe, but we may globally wonder how many jobs the sharing economy actually creates compared to those who get deleted.

Unfortunately, precarity isn't the only economic uncertainty for the platforms, as they also represent an unfair competition to the "traditional" competitors on the market. Indeed, many markets where the platforms have settled are highly regulated ones like drivers and taxis or the housing market. The latter has to follow strict regulations about accessibility, hygiene and finally, taxes. Not only are big Internet companies often not paying their taxes in the right countries, but hosts or service providers also earn revenues thanks to these platforms and only few of them declare these to the fiscal institutions. This is a problem for the cities as they are having a big loss of money with this new and mobile economy. At the same time, like in France, these non-declared revenues give a bigger purchasing power to the people, enabling them to strengthen the weakening economy. The trade-off is hard to make, France decided that taxes would be the best, and as far as I am concerned also the most coherent. Let it be regulations, taxes or insurances, which are not yet widespread, the sharing economy seems to have built its success on the time difference between the industry and state actions. It seems to have built on this model's novelty and we may wonder if all platforms will survive the regulations they will have to undergo.

Actually, the sharing economy's name leads to a misconception of it. In fact, the sharing economy is not the same as cooperations or social businesses as mentioned in the introduction. As said, these platforms still exist in a capitalist context and their enormous growth and valuations are due to a standard neo-liberal investment research through selling company shares. As Hugues Sibille mentions[17] it, *BlablaCar*'s goal is to make money, as quick as possible to please their investors. The problem here is the idea people have about the sharing economy. We have analysed its social impact and seen a certain spread of core values, but what should not be forgotten is the initial motivation to make money instead of fighting against planned obsolescence, climate change by reducing waste or make the world a more social place. What Sibille also stresses is the development of greater inequalities due to private assets. Those who own are able to make money from it when under-used, whereas a job seeker won't be able to share his assets as he doesn't own much. The gap between the wealthy and people with modest means has been increasing in the last years, the sharing economy is actually supporting a widening of it.

All in all, the issues with taxes, regulations and insurances, as well as most companies being very young, even leads investment consultants to suggest a more conservative behaviour[18]. The economic insecurity and extremely high valuations probably cancel each other out, so that investors won't go all-in for the platforms as long as the regulatory glitches aren't solved.

[17] Reference: Interview in *L'Obs avec Rue89*
[18] Reference: Article on *Marketwatch*

2. Environmental Impact

The sharing economy may seem sustainable because sharing resources means consuming less different ones, but in fact, especially for car renting platforms, this logic doesn't apply. Car sharing is a lot cheaper than public transport in many cases, leading more people to use cars because it is either cheaper (if they look for a car) or because they can earn money if they take their car (for people sharing their cars). Indeed, instead of paying the train ticket, one might simply take the car and get the trip paid thanks to carpooling. This can have dramatic influences on the greenhouse gas emissions and hence climate change.

This logic can also be applied to house or apartment sharing as people may more often travel thanks to these financial opportunities. I have a personal example of friends going to Rome, by plane but staying in an Airbnb accommodation and coming back to France with the BlablaCar car sharing service. This leaves a lot of money for on-place expenses. In fact, housing is one of the main parts of a journey, so massively decreasing the housing costs enables people to travel further than they would normally. This may lead – except if they take the train – to massive GHG emissions. Of course, enabling people to travel and meet new cultures and places has got a positive impact on them, but we all shall think about car or plane pollution from now on.

Finally, let's focus on the scenario of GHG emission reduction due to sharing economy platforms and compute the real benefit while taking into account a travel by plane:

According to the US Environmental Protection Agency[19], one household emits approximately 13 tons of CO_2 in one year (without considering fuel oil). Multiplied by 19,000 homes, this makes 247,000 tons of CO_2 per year. According to a 2007 European Commission report on air transport[20], the average flight distance is 2,300 km for North America, which emits 708 kg CO_2 for the round trip following *Atmosfair.de* 's calculator. Times 2 Million US guests makes 1.4 Million Tons CO_2 per year. This amount is way bigger what actually got "improved" thanks to Airbnb.

[19] https://www3.epa.gov/climatechange/ghgemissions/ind-assumptions.html
[20] http://ec.europa.eu/transport/modes/air/observatory_market/doc/annual_report_2007.pdf

3. An Internet Business Model

As said earlier, the sharing economy's boom would not have been that important if the internet hasn't been invented and become this big. Unfortunately, the Internet is not the most perfect Eldorado people are dreaming of, it has got some drawbacks. In fact, shortly after the creation of the World Wide Web, some people like major Internet stakeholders' employees had to think about the way to make this product lucrative. Two possibilities made it into the final: subscription fees for services or an ad-based monetisation. Of course, the ad-based model won as we now know, even if some companies like *Apple* try to push the subscription model nowadays[21]. In fact, companies earn much more money per capita than any reasonable subscription fee would have cost[22]. Hence, many Silicon Valley companies earn their money with user data and the corresponding data analytics. This has led to reactions in the community, as many people don't like to share their privacy and the corresponding data.

Sharing economy platforms have the potential to make money out of their customers' information like travelling schemes or favourite holiday destinations. They can sell the data or use them to either create special offers for users or increase prices for favourite places depending on the user's profile as is done on some flight booking websites. I wasn't able to find any big privacy scandals yet, except an *Uber* executive tracking a *Buzzfeed News* reporter in New York[23], but people may not want their displacements to be tracked for marketing purposes. Moreover, some platforms check on credit histories, violence and driving records[24]. This is obviously a positive thing for all customers, but is it right in terms of privacy for those who get their data checked? It is hard to answer, as each person has got his own opinion on the topic.

Finally, the internet business model also holds another economic drawback: many Internet-based markets tend to lead to monopolies. This is mostly the case for *platforms* where customers get a specific service from. It is not the same as newspaper websites, forums or even cloud storage providers. Here, platforms need people to stay loyal and rather not use the direct competitors. Nevertheless, there would be no real problem using *Facebook* and *Google+* at the same time, nor *YouTube* and *Dailymotion* nor *Lyft* and *Uber* to compare driver statistics and prices. As far as I am concerned, this is probably due to mass philosophy which explains why a mass reacts in a different way and how the mass acts on individuals. Indeed, Indy Johar, social venture specialist, said that platforms owe their success to "their intrinsic monopolistic nature and ability to 'lock-in' users"[25].

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[21] Examples are the music and film industry with *Apple TV* and *Apple Music*
[22] *Arte*'s interactive web series *Do Not Track* stressed the differences between *Google*'s or *Facebook*'s earnings with user data and how much people would pay for an annual access to *Google* or *Facebook* (Approx. 15€)
[23] Original Buzzfeed article: http://www.buzzfeed.com/johanabhuiyan/uber-is-investigating-its-top-new-york-executive-for-privacy#.ciovpOjM4
[24] Reference: The Economist, All Eyes on the Sharing Economy
[25] Reference: Knowledge@Wharton Article

CAN TRADITIONAL COMPANIES ADAPT TO THIS MODEL? AND WILL THEY?

With the rise of asset sharing platforms, traditional companies have seen their market share or revenues drop. This is especially true for the taxi, housing and transport industries. Since a lot of stock prices have fallen, shareholders wanted to see reactions. Hence, traditional companies are currently studying the sharing economy's business model. First, to understand how it works and how it produces income; second, to check how they can adapt to play a role in the market. Indeed, they have understood that the sharing economy either bypasses charging intermediates or simply makes purchases easier for customers. Except if the regulatory issues have their say and slow down the boom, the sharing economy is most likely not going to die in the next five years. In fact, there are three possibilities how companies can adapt:

+ First, traditional companies can try to enter the market and use their assets to play a role in it. A successful example is the automobile industry where some car manufacturers created their own car sharing services, like for instance available cars (*car2go*…) in the cities. Another example is French gardening tools and utilities retailer *Castorama* which acted on several levels[26]. They introduced a DIY Wiki platform to share tutorials and ideas with their customers, created MOOCs on woodwork or decorations and finally offered an after-sales 3D printing service for people to print their broken objects for *Castorama*'s products. Moreover, the French railway company SNCF invested in a car sharing service and now offers carpooling themselves. This could obviously reduce the loss due to train journey decreases.

+ Second, traditional companies may want to co-operate with sharing economy stakeholders by investing in them and providing them with a privileged access to some of their systems and services. This was the case with *GM Ventures* and *RelayRides*[27]. The car sharing platform has got an access to GM's *OnStar* navigation system, which is positive for both GM which spreads the system and *RelayRides* as they expand their service catalogue. In the end, it is mostly beneficial for RelayRides's customers.

+ Third, traditional companies may only want to get inspired by the mainly C2C-based sharing economy. They may want to take this sharing model and possibly its values to the B2B (Business to Business) model. As PricewaterhouseCoopers yields[28], "manufacturing facilities operate at an average of 20% below capacity, and in most offices, around half the desks are unused at any one point in the day". But they could also go beyond the simple use of personal assets. *Kyklo*[29], a Bangkok-based start-up, is creating a B2B platform to provide electromechanical product distributors with a white-label e-commerce platform sharing a common product database and website architecture. This database is built by *Kyklo* themselves and gathers all electromechanical products from big manufacturers' websites like *Schneider Electric* or *ABB*. In this case, a new start-up has seen the light of the world, but it could also have been an already established traditional company.

Finally, some companies won't integrate the sharing economy in one way or another but simply acknowledge its platforms as direct competitors and hence adapt to decreasing prices. An example is German *Deutsche Bahn* with its low-cost bus travels.

[26] Reference: LSA Conso Article
[27] Reference: The Economist, All Eyes on the Sharing Economy
[28] Reference: PWC, how can established organisations play to win in the sharing economy?
[29] www.kyklo.asia

CONCLUSION

The sharing economy, taken as a standalone economy, is indeed developing precarity and job insecurity. It is also geographically flexible, which is probably not a good thing for some workers. For me, these mentioned economic aspects are not positive and not coherent with the future challenges of climate change. Instability cannot be the new core value of the post-neo-capitalist system, it certainly leads to less statistical unemployment rates, but this is not sustainable for people's health and the economy as well. The sharing economy has gotten a big push thanks to technological mobility and this definitely must be used. Is it though capable of being a standalone economy?

Yes, but not with the right values and focuses. As far as I am concerned, the sharing economy must all be about sharing assets that are not used at their full extent, as power drills, special hospital technology and nearly totally empty cars. The objectives of this new economy should be that people become very active stakeholders, as they would for democratic rights, but not to the extent of using it as a standalone revenue income. The sharing economy must be about diminishing our consumption of rarely useful assets, not to share everything and to extract a capitalist business model out of this. The future economic and social challenges are all about going away from a "financial-centric" economy to one that considers the people's needs mixed with environmental sensibility and labour ethics. The sharing economy has the potential to play a big part in the transition, both culturally and economically. It has got the potential to keep us, in the developed countries, at a similar level of comfort, though not all assets are duplicated as they are nowadays. "Northern countries'" consumption is then optimized and goods production can be centred on southern countries as well.

The transition from the egoist and short-term world we know to a sustainable, long-term and ethical world goes through a less consumerist northern society. But this doesn't mean a huge change in standard of living. Why? Because the amount of waste - in the broadest sense - is huge. If we don't have full supermarkets at any time of the day while they are open, nor possess power drills each but sharing one for a whole building, the perceived standard of living will only be slightly under the current one.

According to myself, the sharing economy is especially interesting for the social values and behaviours it strengthens. We nevertheless need to solve the mentioned teething troubles. First, I suggest to centralize online rating services and secure them with behaviour analysis. Second, we have to push the internet in remote areas so that people get access to online educational platforms. This would be a big step to world education. Third, we need a more balanced system between global and local trades. Not only would more local trades or sharing emit less GHG, but it would also help strengthen local markets. Another tool for this purpose are complementary local currencies, which on top of that decrease the financial markets' influence. In this context, I also want to stress the new funding methods that also move away from the finance sector. Fourth, on a more administrative level, I suggest that sharing economy platforms generate fiscal declaration sheets for their service providers to help them with the fiscal processes. Of course, the final choice of declaring their revenues remains to the providers, but having pre-filled fiscal sheets will decrease tiring bureaucratic work. To provide these people with social safety nets, I suggest insurances to create specific offers for independent sharing economy service providers. The corresponding fees would have to be partially or totally paid by the platforms, depending on the market. Finally, I support regulatory projects aiming at decreasing unfair competition to traditional markets, but I believe that the created regulations for the sharing economy have to be flexible and modern. It will also be about decreasing market constraints for the highly regulated ones.

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