



# Innovation and Governance: The Role of Sharing Economy

Elia Brugnani, Alberto Polzonetti, Matteo Sagratella

## ► To cite this version:

Elia Brugnani, Alberto Polzonetti, Matteo Sagratella. Innovation and Governance: The Role of Sharing Economy. 6th IFIP World Information Technology Forum (WITFOR), Sep 2016, San José, Costa Rica. pp.195-204, 10.1007/978-3-319-44447-5\_18 . hal-01429747

**HAL Id: hal-01429747**

**<https://inria.hal.science/hal-01429747>**

Submitted on 9 Jan 2017

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution 4.0 International License

## Innovation and Governance:

### the Role of Sharing Economy

Elia Brugnoli<sup>1</sup>, Alberto Polzonetti<sup>1</sup>, and Matteo Sagratella<sup>2</sup>

<sup>1</sup>E-Lios srl Spin Off Unicam Camerino (MC) Italy  
{elia.brugnoli,alberto.polzonetti}@e-lios.eu

<sup>2</sup>School of Law – Unicam Camerino (MC) Italy  
matteo.sagratella@unicam.it

**Abstract.** The sharing economy originates from the development of new business models that help to record important data concerning economic development, by showing they can attract the attention of investors and the public at large. This paper tackles with the main issues related to technological development and to the ever increasing predominance of intangible or immaterial goods thus focusing on the so-called ‘sharing economy’. The players and the interests involved have been observed, together with the conflicts that institutions are called to anticipate and manage. Some principles that may offer some inspiration have been suggested too. Our objective was to show how the sharing economy may be considered as a remarkable economic resource for Italy in terms of both employment levels and tax revenue growth. In fact, it could be a great opportunity to establish new companies that, by implementing new business models, would have a positive effect on the industries that are currently suffering from the economic crisis and are relegated to grey areas or illegality. By evaluating the existing critical aspects of the Italian context in relation to industry regulations and governance, the paper aims at suggesting some pragmatic solutions to develop an ecosystem to facilitate the emergence of innovative companies that could boost employment. Mobility, tourist hospitality, work and training sectors have been taken into consideration.

**Keywords:** sharing economy, governance, innovation, sustainability, testability, open society.

#### 1. Introduction

The emergence of new technologies, which are ever more powerful but also cheaper to produce, originates from the exponential growth of transistors’ complexity, as the so-called ‘Moore’s law’ had foreseen 50 years ago by envisaging that the power of microprocessors would double approximately every two years, at the same cost. For example, if a Volkswagen Beetle, in 1971, had undergone the kind of technological

improvement forecast by “Moore’s law”, today, ‘you would be able to go with that car 300.000 miles per hour. [1] Lately, such an impressive technological advancement has produced sensational effects, also thanks to strategic business choices. As a result, large companies producing microprocessors have been marketing on a large scale less powerful processors, but at increasingly lower prices. This kind of marketing policy allows higher funding needed to develop top range products that are ever more powerful and competitive, but also likely to be replaced within a short time.

The huge offering of low-priced microprocessors and the need to use such an enormous computing power, formed the basis of the simultaneous development and spreading of the Internet and of its applications.

At the end of the 90’s, the pastures of new business opportunities came to light and, new economic, social and political visions, or even some reformulations of the same, have also emerged, at times. However, the very first steps of the various approaches were made through software development.

The pressure exerted by the new peer-to-peer approach for the exchange of information led to the questioning of intellectual property models, as well as to many opportunities for new companies, services and professions, at the same time.

Up to then, the virtual web world set some limitations to such trends, but from then on the process of integration of the two realities has started.

However, a common theme for this multifaceted phenomenon is the technology’s power to change society and people’s lives within a scenario where resources are becoming increasingly scarce and the choices imposed on society more difficult.

In particular, the so-called ‘sharing economy’, or collaborative consumption economy, was initially so defined by Prof. Yochai Benkler, from Yale Law School, in 2004.[2]

Sometimes the opportunity to develop an economic and social context consistent with a certain moral vision of life has led to consider the sharing economy as an alternative to the capitalistic system<sup>1</sup>.

Many have already used very convenient and advantageous services such as Uber, Lyft, Airbnb, Upwork etc. that allow users and owners to get into contact.

That’s the reason why some believe that rather than a sharing economy, the one that is taking shape could actually be an accessibility economy, where, also due to the enduring economical crisis, people try to get some extra income or through new, low-cost purchase opportunities.

## **2. Sharing Economy and Accessibility Economy - Is There Room for Both?**

The vision of sharing economy that ‘purists’ (i.e. those who see it as essentially local, horizontal and community based) have, appears to be in contrast with the actual working of companies operating at global level. Nevertheless, the continuous contamination between the two approaches is quite remarkable.

---

<sup>1</sup> The future of business: what are the alternatives to capitalism? Jules Peck, the Guardian, <http://bit.ly/1EWNdmb>

That is clearly shown by the evidence that many of these companies, which now appear to be almost monopolistic ones, up to a few years ago were small startups themselves, having a limited geographical scope and a small community of users. It seems that there is enough room for both approaches.

The dynamic ‘creative destruction’ foreseen by Schumpeter seems to be confirmed, while new perspectives, expectations and problems are also emerging. To provide an example of the current state of the international debate, it may be interesting to consider the point of view of Robert D. Atkinson, President of the Information Technology and Innovation Foundation, based in Washington D.C. who, in spite of his progressive stand, is quite critical about the ambiguities existing both in the United States and, particularly, in Europe.

In this case, the basic assumption is that economic progress should be accompanied by the creative destruction originating from technological progress. The role that progressives should play is to be supportive of innovation (and not act as populists by slowing it down), and increase factors of production, by helping workers, adjusting to the changes that are taking place.

According to the Information Technology & Innovation Foundation’s founder, the progressive movement is or should be dealing with the continuous transformation of economy and its institutions. However, as Atkinson points out, the progressives show an ambiguous attitude about such transformation, since they are concerned about ‘balances within the social-democratic society’.

The fast technological innovations and connectivity increase have led to a multi-direction development of new companies and business activities that have often overflowed into more traditional sectors and, therefore, have been redefined. Given the above scenario, there is a need to tackle how the change is taking place, not only within the market but within society too. A conflict arise again, i.e. the conflict between the interests of those who, legitimately, intend to innovate by offering new value to consumers, and the interests of those who have been living, or have lived, thanks to a particular order that was sometimes justified by the intervention of political authorities.

### **3. Interests and Problems Generated by the Sharing Economy.**

Nowadays, we witness great transformations concerning the organization of various sectors, such as mobility, tourism, education, which are facilitated by a technological gearing.

#### **Mobility and Transport**

Within the mobility sector, there are small and large companies offering new services which can compete with those operating within a sector that hasn't changed for decades. The introduction of mobile connectivity and the immediate availability of information provide the opportunity to fulfill an increasing transport demand and, at the same time, to use existing resources in a more efficient manner.

An interesting example is that of Bla Bla Car: The company manages to do that thanks to social communication tools, that enable it to reach a large number of users (both car owners and potential passengers), and by highlighting the opportunity to get to know new people while saving on travel costs. Technology has helped to tackle such a lack by offering a win-win solution where everybody wins, environment included.

In the last few years, car-sharing services have shown an enormous growth. In fact, it is anticipated that 12 million people will be using such services worldwide, by 2020. In Italy, 220,000 people used car-sharing services in 2014, the car fleet totaled about 3,000 cars in 11 cities, and in 2013 the sector's growth reached 70%. Milan is the leading city of Italian car-sharing<sup>2</sup>, with 80% of the market. The sector boasts a robust expansion trend and an ever increasing integration with public transport services.

In other cases, such as the Uber or Lyft ones, a service that was directly competing with traditional taxi services generated a harsh conflict with taxi drivers. The political authorities of many countries were rather embarrassed by such a clash. The embarrassment of political decision-makers became even greater if taxi licences were considered as they are very expensive and sometimes taxi drivers invest their lifetime savings to purchase them. How the public transport system is going to evolve is still unknown. Will taxis be able to improve their offer? Will the new companies, such as Uber, succeed in breaking the strict regulatory barriers that prevent their full development, or will they have to adjust to them? Will political authorities be able to manage the transition towards new mobility models ?<sup>3</sup>

## **Tourism**

---

<sup>2</sup> From the report 'Nutrire la Mobilità nel Futuro' (Feeding Future's Mobility) presented by AlixPartners, at Forum Automotive di Milano, 2015

<sup>3</sup> The Italian Competition & Market Authority, in a reply dated November 2, 2015 to a request made by the Ministry of Interior about the use of platforms, such as Uber, urged legislators to regulate the sector in order to ensure competition, as well as road and passenger safety by defining a 'third kind' of drivers, in addition to taxi drivers and car rental drivers <http://bit.ly/1P7BCYL>.

Within the tourist hospitality sector, the opportunity to rent out rooms or apartments for short periods of time has provided a new source of income to many property owners. On its website Airbnb advertises that, so far, its platform has been helping 60 million guests to found a room in over 34,000 cities around the world. Such figures mean that, compared to 2013, the number of people using their services has increased by 6 times.

Although less noisily, professional hoteliers have started to stick up their nose about such a phenomenon that has began to weaken their stance within the industry.

Moreover, they also feel that they're facing a kind of unfair competition because of the poor control that public authorities have exerted over the phenomenon in question, especially in relation to tax issues. In this case, perhaps the poor and fragmented regulatory efforts are the reason why such a market cannot fully develop since it is affected by a lack of clarity and generates uncertainty. Lombardy's regional authority, for example, has started to keep into consideration this increasingly growing trend through its new tourism law<sup>4</sup> that's been recently issued.

### **Education and Training**

Within the higher education sector, the development of Massive Open Online Courses (MOOC) is changing the education approach completely. This trend is about free online courses that are offered through special platforms, such as Coursera or EdX, by some of the most prestigious universities in the world, which are accessible to those who wish to study using such a system. The new method offers the opportunity to carry out in-depth studies not only to university students but also to working students<sup>5</sup> or professionals.

In 2014, there were over 2,500 courses available, with over 400 universities involved around the world, and the leading Coursera and EdX platforms totaled about 14 million students. The courses, cover a wide range of topics and may also focus on particular ones by ensuring a rather high quality level. Universities all over the world have started to invest a great deal of resources on this sector as such courses help to promote the universities globally, by starting to establish a relationship with potential students who may decide to enroll for traditional courses too, at a later stage.

---

<sup>4</sup> 'Lombardia, giro di vite per le case su Airbnb: check in e tassa di soggiorno come in hotel' (Clamping down on Airbnb accommodation: check-in and city tax like in hotels) <http://bit.ly/1iFQbo8>

<sup>5</sup> Data provided by edSurge 2014 <http://bit.ly/1MNaKuY>

The sector shows a significant growth due to several reasons, such as the high costs of university education, especially in the United States, and the use of big data tools for the management of exam results that, being online, have become a new source of business for IT platforms. Academic knowledge may now be shared free of charge in almost every country originates from the remarkable demand for education at a global level. After all, the more information available, the stronger is the need for intellectual tools that may be used to make sense of such an increasing amount of data.

### **Work and Employment**

On the other hand, as regards work and employment, the effects of the economic crisis are being tackled through online platforms that help people looking for a job and employers getting in touch. However, they are not just some basic notice boards, but are rather similar to proper employment centres. Instead of just offering temporary or permanent jobs, the new platforms also advertise offers and requests for spot jobs.

Nowadays, it seems that work is increasingly becoming a matter of coordinating skilled professionals. Within this field, conflicts arise between those who consider temporary or occasional jobs negatively because they don't provide proper worker protection, and those who see them as a great opportunity to create new businesses by using the technological gearing available, as well as to offer skills and knowledge to a wider audience of millions of potential employers.

## **4. The History of the Relationship between Innovations and Institutions**

The conflicts between different interested parties have always existed, but the growth of available wealth and the economic, social and political development are relatively new phenomena. That is probably why it may be worthy to recall some examples from the past to better understand common issues and differences.

Great Britain found its way towards an unprecedented development before the end of the 17th century. In fact, the Glorious Revolution of 1688 opened the Kingdom to those political, social and legal reforms that were going to pave the way for the Industrial Revolution that would take place a century later.

As properly explained by Daron Acemoglu and James Robinson in their book 'Why Nations Fail'[5], such a transformation in Great Britain was driven by a new social class, the bourgeoisie that put forward new values and interests in contrast with the traditional aristocracy and great landowners. The clash between those classes concerned very practical matters, such as private property regulations or, for example,

the protectionist regulations that halted the development triggered by the technical revolution. Therefore, such matters would work as a divide between the parties.

It is also important to consider how the country's institutions (first of all, Parliament and Common Law Courts) were able to facilitate the economic transformation and to accompany the social metamorphosis brought about by the industrial revolution of the 19th century.

### **Innovations, Institutions and Legitimacy**

The question to be asked is whether the new economic models envisaged for the forthcoming decades are also going to be accompanied by a new legitimacy of governments and institutions that are meant to regulate such an economic, social and political transition. So far, the picture described explains why the sharing economy is important not only to understand how new technologies are going to be used, but also to understand how society, politics and institutions are going to be influenced.

A sharing economy can bring technological innovations to sectors of the economy which haven't been affected by productivity increase and that have actually been spared process and organizational innovations for decades.

### **Convergence of Interests – Between Idealism and Pragmatism**

In contrast with past experiences, the main distinctive feature of this historical period is that a convergence of interests may often exist for individual players.

The end of a society that's divided into classes, where each one features its own identity that is linked to its own production, professional or revenue generating activities, opens up a world where mobility reigns, not just in terms of employment, but also as regards the use of resources. However, it's probably still impossible to see how the discourse concerning the sharing economy's nature is going to evolve.

For some, the nature of sharing ought to open up to an exchange system that is legitimate for its own sake, i.e. one that is based on principles related to the equality of the parties involved. Such principles are considered intrinsically ethical and should not require any interventions from institutions or external government to validate them.

This is the hope of Internet enthusiasts who would like to bring about a network that would overcome the interests of more complex organizations, so to introduce a new alternative model to consumerism.

### **The Network Effects and Phenomenon Governance – Exclusion Reduces Efficiency**



In a sharing economy, therefore, there is a growing network of players that are not easy to categorize, being simultaneously service consumers and suppliers.

Furthermore, another feature of this network is the role played by those operating as part of both sharing and traditional economy. Can democratic institutions evolve quickly enough to support the next steps of the transition and promote economic development? On the other hand, will other routes be found to achieve a direct legitimization of the economic system? As a first comment, which could also be a starting point, it could be said that an effective governance of the network in question may stem from the awareness that none of the parties involved could be excluded without risking to reduce the importance of the network itself.

#### **The Obstacles to Innovation – the Role of Institutions**

Sometimes, political power sets some insuperable obstacles to technological innovation because it perceives the consequent modification of the status quo as a threat to its authority and stability, rather than a risk for those who have a direct interest in the lack of changes within a given economic sector. For example, in England, in 1589, when William Lee showed his revolutionary knitting machine to Queen Elizabeth I, he was told that the implementation of such a tool would have taken the work away from many citizens who would then become beggars [5].

### **5. How and Why Should Innovation be Encouraged?**

Innovation is an advantage if the benefits produced are extended to the whole society. This can only happen if an innovation incorporates the ability to be sustainable, if the costs of its implementation are carefully evaluated and its benefits are clearly evident.

The opening of institutions to new requests and interests is a very important aspect of innovation success. Actually, it's an essential requirement for it. In an era where the world's population amounts to 7 billion people, and raising the usable resources needed to ensure a decent living in increasingly larger areas of the planet are becoming more and more scarce. This fact on its own has the potential to trigger conflicts. On the other hand, technological innovations also offer the solutions to drastically reduce the costs of such resources, thanks to the implementation of new usage methods and new organization models.

#### **Innovation Methods – Sustainability, Testability and Market Opening**

The principle of sustainability, with its many aspects, has now become deeply rooted in the innovations to be implemented. The sharing economy is going in the right direction as regards the efficient use of resources and the spreading of a greater sensitivity about

environmental issues. Although more and more often innovations originate from the bottom, , nevertheless, sometimes it's impossible to evaluate the possible effects that their introduction may have on the market and on society.

However, even though a product originates 'from the bottom', it's not always possible to transfer it to another market if the product in question is not fit to fulfill the existing demand. Therefore, new ideas or inventions are not always ready to do that 'jump'.

Sometimes, unfortunately, such opportunities may be hindered by bureaucratic constraints. In Europe, however, the recent moves made by the European Commission towards a Digital Single Market<sup>6</sup> seem to be going in the right direction. More consistency amongst regulations concerning data protection, intellectual property and consumer rights would favour the development of small and medium-sized companies. That would also encourage the establishment of large digital organizations, similar to those that usually originate in the United States rather than in Europe.

Moreover, cities are the ideal place where new ideas may become actual innovations likely to produce contamination effects.

After all, the city itself does challenge the status quo, by attracting so many people who wish to change their social status. However, the fast pace imposed by technological changes and the remarkable exchange opportunities brought about by globalization, have transformed some industries significantly, whereas others have remained unchanged.

#### **Why Innovate? A Question To Be Answered by Comparing Costs and Benefits.**

The remarkable growth opportunities offered by today's economy are associated with the creation of value. That is facilitated by the increasingly sophisticated use of intangible goods which are difficult to evaluate, such as algorithms, information, software, huge databanks, patents, copyright, the implementation of sizeable business models, organizational skills, corporate capital, knowledge, abilities and strategic networks [6].

It is reckoned that in the most developed countries the contribution of intangible goods<sup>7</sup> to the real economy, in terms of GDP, is the double of that provided by material goods.

---

<sup>6</sup> European Commission's website on Digital Single Market  
<http://ec.europa.eu/priorities/digital-single-market/>

<sup>7</sup> Disrupted Innovation: Financing innovative small firms in the UK', Sameen, Qusted, Big Innovation Centre 2013

However, the problem with assessing the value of such goods makes it often difficult for institutions (either political or financial ones) to support apparently risky companies without a profit or an electoral return. In parallel, from a political point of view, there is some resistance in supporting those initiatives whose effects are uncertain. In particular, political and regulatory barriers have their own precise meaning if they are put into context, both historically and socially. They tend to ensure that some categories of citizens are not affected by competition or changes.

How can such an enduring protection be justified when circumstances change? How can any institutions that are supposedly open to their citizens' requests ignore the cost-benefit ratio deriving from protecting a given category or industry (so that it can remain the same), whereas the value generated by innovations could make more resources available for the benefit of a large number of citizens-consumers?

#### **The Existence of a Right to Innovation**

Replying to such questions, it is possible to perceive a right to innovation that the institutions ought to keep into consideration, learning from past experiences. Such a right naturally emerges from the free exchange taking place in the markets. Sometimes, its explosive power reveals itself in real life and may be quite ruthless. Some players are rewarded, whereas some risk to be pushed out of the market if they don't adjust their offer. Institutions are forced to face the dilemma: whether it's worthy to risk losing some of their political influence by reducing protections, compared to the support they may obtain by opening up to new opportunities that would benefit the rest of the community.

### **6. How Can the Right to Innovation be Accomplished? Criticalities and Suggestions**

Since the city is a place where innovation develops more easily, the regulatory aspects of economy have to be dealt with at some higher institutional levels. Therefore, the sharing economy in Italy involves a series of players operating at different levels.

The ways in which new platforms (i.e. access tools that are essential for the sharing economy), introduce themselves to the markets recall the general problems affecting the ecosystem of innovative startup companies.

In particular, there are several limitations concerning:

- ☐ The taxation of new companies;
- ☐ Bureaucratic constraints for companies;
- ☐ The ability of the university system to educate and train skilled ICT staff;
- ☐ Difficulties in obtaining loans from financial institutions.

The number of investments made through risk capital or venture capital is significantly lower compared to other European countries. Although Italy comes second, after the UK, in terms of percentage of innovative small and medium-sized companies, only 0.002% of GDP is invested in venture capital, against a European average of 0.024%.<sup>8</sup> Furthermore, there is no entrepreneurial culture that would lead operators to accept the risk of embarking in a startup company<sup>9</sup>.

However, there are young workers, trying to access, or access again, the employment market through startup companies. They are actually creating new entrepreneurial experiences that very often, unfortunately, don't last long<sup>10</sup>, due to the negative aspects described above<sup>11</sup>.

**Commentato [MS1]:**

Nevertheless, these are valuable experiences as they help to come to terms with the real world and provide training opportunities based on actual economic conditions. Fragmented regulations and regional financing do not allow for a proper use of the already scarce financial resources<sup>12</sup>. There is no place where such innovation experiences could be put together so that they would attract the best available talents, as well as Italian and foreign investors, according to international best practices<sup>13</sup>.

Some ideas and suggestions to be developed in order to tackle the above limitations include the following:

---

<sup>8</sup> Annual report by the European Venture Capital Association (EVCA).

<sup>9</sup> Moreover, young people have a kind of cultural resistance about joining startup companies and/or starting their own, as mentioned in the Standard Eurobarometer UE for 2013 : although 50% of European consider the possibility of starting their own business, only 5.8% decides to take that route.

<sup>10</sup> Summary of the last OECD research on entrepreneurship - August 2015  
<http://bit.ly/1GNqSw2>

<sup>11</sup> For an analysis of entrepreneurs'/startups' reasons, see the study by Pais e Sirigu.  
<http://bit.ly/1MeNUMw>

<sup>12</sup> White Paper for Startup, by Digital Magics 2015

<sup>13</sup> As an example, see Israel's legislative efforts to attract investors from abroad, aiming at attracting investments in the following industries: manufacturing, communications, IT, medical technology, biotechnology, nanotechnology, research.  
<http://bit.ly/1P7DIYE>

- Simplification of bureaucratic, administrative and fiscal requirements and improvement of legal certainty;
- Regulatory simplification at both national and supranational levels, as regards the sharing economy to enhance transparency and trust;
- Establishing partnerships between public and private sectors - in particular with the research and university compound - and directing resources on some key topics concerning economic development;
- Facilitating the aggregation of small and medium-sized companies, also in view of open innovation processes and of the spreading of collaborative models;
- Ensuring that the education and university system, together with companies and public administrations, aims at providing the education and training needed within the business scenarios, as well as continuous training for freelance and employed professionals, in order to expand the entrepreneurial culture.

## References

1. Annie Sneed, Moore's Law Keeps Going, Defying Expectations, SCIENTIFIC AMERICAN (May 19, 2015)
2. Benkler, Yochai, "Sharing Nicely: On Shareable Goods and the Emergence of Sharing as a Modality of Economic Production," Yale Law Journal, 2004, pp. 273–358
3. Atkinson, R. D., McTernan, M., & Reed, A. (Eds.). (2015). *Sharing in the Success of the Digital Economy: A Progressive Approach to Radical Innovation*. Pickering & Chatto Publishers.
4. Eckhardt, G. M., & Bardhi, F. (2015). The sharing economy isn't about sharing at all. *Harvard Business Review*, January, 28.
5. Afzal, M., over Interest, D., Tanzi, V., Barreix, A., & Villela, L. (2015). Acemoglu, Daron, and James A. Robinson (2006). *Economic Origins of Dictatorship and Democracy*. New York: Cambridge University Press. Acemoglu, Daron, and James Robinson (2012). *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*. New York: Crown Publishing Group. Microfinance, Rights and Global Justice, 29, 180.
6. Onişor, L. F. (2015). Marketing and Business Development between Idea, Scientific Discovery and Innovation. In *International Conference on Marketing and Business Development Journal* (Vol. 1, No. 1, pp. 29-39). The Bucharest University of Economic Studies.