

“WALRAS” DREAMED IT, “UBER” DID IT

About the coincidence of reality and its representation

“WALRAS” L’A REVEE, “UBER ” L’A FAITE

...De la coïncidence du réel et de sa représentation ?

Mourad TOUNSI, Teacher-Researcher

Cadi Ayyad University, National School of Business and Management

Marrakech

mouradetounsi@hotmail.com

Abstract

This work coincides with the persistence of the lack problem of consensus on economic methodology between theorists, economists, philosophers and historians of economic thought, as to the anchoring of the work more in economic theory and sometimes very at odds with the facts, events and possible solutions. We support the approach that the theory should be as close as possible to economic reality and try to draw conclusions and "lessons" from the two models which, apparently, nothing compares, one purely theoretical and which has proven itself by its richness in concepts and theoretical notions and its very advanced level of formulation, we cite the General Economic Equilibrium in which Léon Walras describes pure and perfect competition. The second model, or rather a « business model » the Ubers one, mistakenly confused with the GAFAM model and which is intended to be more practical and testifies more than ever to the excessive use of Digital Platforms and their derivatives, the Non-Fungible Tokens, the precariousness of wages, the fragility of the position of workers and the return of the exacerbated prevalence at the beginning of this century of « primitive accumulation of capital ».

Keywords: *Digital Platforms, GAFAM, Model of Pure and Perfect Competition, Uberization, Precariousness, Primitive Accumulation of Capital, Non-Fungible Tokens*

INTRODUCTION

Latest event to date, the Uberization of the Muslim Sheep Festival (Eid El Kabir) which makes us rethink the race for pre-eminence existing implicitly between the real economy models (more or less uberized¹) and those of theoretical economics. Is there really an « Uber business model »?² who identifies with other models? what are its characteristics and especially its limits? what institutional intervention can do to put it on the right path of economic reason (rationality), society and respect for environmental provisions, to prevent the problems and brakes that obstruct this model, in its functioning, all keeping in mind as a priority the ultimate societal objective - social and environmental - two axes necessary but not sufficient for sustainable development.

There is a problem of lack of consensus on economic methodology between theorists, economists, philosophers and historians of economic thought. This leads to questions that distance us from reality and push us to anchor ourselves more in economic theory, sometimes very much at odds with the facts, events and possible solutions. We support the approach that theory should be as close as possible to economic reality. We are interested in the G.E.E.M³ (General Economic Equilibrium Model) objectively because it is one of the models that fascinated the big names in classical economic theory of the 19th and 20th century, in this case Ricardo. D (1817), Cournot. A (1838), Smith. A (1759), Pareto. V and the neoclassic at their head, Walras. L (1874). Through this model, the latter revolutionized the economy by putting supply and demand at the center of the economy. Subjectively, we intend to use some of the founding principles of this model to refine the proposals which, in our opinion, will make it possible to establish a training model or others, using platforms without putting aside real societal values or this being only a fashion effect. What interests us is the so-called Uberization movement⁴ of the economy as a whole. On a normative level, this work does not intend to justify Uber's actions nor defend the company in the face of the criticisms it faces.

Our essay falls within the theoretical tradition which focuses its attention on the effectiveness of the « Market-Institution » compared to the « Uber » institution (and the others), an

¹In the 2017 version of Robert entered the verb « uberize », defined as the fact of « transforming (a sector of activity) with an innovative economic model taking advantage of digital technology »

²The word Uber comes from the mobile application born in 2009 which connects users and vehicle drivers. In 2015, the Uber company was capitalized at \$41 billion, without owning a single vehicle.

³From now we use the acronym G.E.E.M to designate the General Economic Equilibrium Model described by Léon Walras.

⁴Uberization or uberification as used by Henrique Schneider (2017), Creative Destruction and the Sharing Economy Uber as Disruptive Innovation.

emblematic figure in the development of what should be called the Digital Platforms Economy, in the optimal allocation of resources. However, we adopt the idea that a market pre-exists whose failure would justify the adoption of non-equilibrium coordination rules. However, these failures, largely due to high transaction costs, could be at least reduced by the intervention of Digital Platforms which would allow a return to social « order » which is far from being « natural ». This work presents an opportunity to respond directly to a crucial question: can Digital Platforms lead to a coincidence of the theoretical world represented by the General Economic Equilibrium Model (G.E.E.M) with the real world tainted by Uberization?⁵ and supported by digital coordination platforms, in general? In other words, can we find the G.E.E.M hypotheses under the effect of Digital Platforms? To answer this question, a first point will serve us in a syntax and semantic phase, to expose the underlying hypotheses of the G.E.E.M and thereby the validity of the term "new" currently inherent in the Digital Platforms Economy. In the second point, we will deal in a pragmatic phase with the eventual quasi-coincidence of the two worlds, which until then nothing brings together except the partial failure of commercial logic, persisting in part because of the externalities of digital platforms like support and on the other hand, the underlying problem of a « public good » management.

I. The theoretical foundations of the Digital Platforms Economy (D.P.E) & the Pure and Perfect Competition Model (P.P.C.M)

It is not customary to contradict one of the best thinkers in economics, the only French Nobel laureate, Maurice Allais, when he talks about his disagreement with the model (G.E.E.M) of Marie Esprit Léon Walras (1834-1910), an atypical character, exiled in Switzerland, liberal, since he was a competition and free trade fan, socialist because he was always concerned about social justice. What constitutes the purity and perfection of market competition described by the G.E.E.M and questioned by the greatest economic thinkers?

1.1. The G.E.E.M from purity to perfection of competition

Even if economic analysis is far from reducing competition to a single and homogeneous form⁶, no one can ignore the central place given to the model of pure and perfect competition. The latter, sometimes called « traditional competition theory »⁷, occupies a special place in economic theory. Its objective is not really to represent reality faithfully but more to build a

⁵Neologism created by Maurice Levy, of Publicis. Uberization is the use of services by professionals and customers who contact each other directly, practically instantly, thanks to new technologies. This reintermediation destroys traditional market players.

⁶A. Bienaymé, (1999), Are New Information and Communication Technologies disrupting competition? Societal, n°26, Sep. pp. 27-32.

⁷P. Salin, (1995), Competition, What do I know? PUF.

very simplistic model, which above all allows us to understand how prices and costs are set and how the balance is achieved. This model is based on five strong hypotheses, the first three of which ensure the purity of competition and the last two of which ensure its perfection. In practice, only the markets for stock securities, or for homogeneous nature goods, such as cocoa, cotton and coffee come close to these criteria.

1.1.1. The purity of competition

1.1.1.1. Atomicity of supply and demand

According to this hypothesis, supply and demand are « Atomistic »: This simply means that there exist, in a given market, a « large » number of sellers and buyers, each of whom is small. This « atomicity » of the market allows an « objective » setting of the price by balancing supply and demand without this price being able to be influenced by the action (sale or purchase) of a single person. In other words, there is no individual sufficiently influential to be a « price maker », this privilege falling to the invisible hand of the market.

1.1.1.2. Market fluidity: Free entry and exit

The factors of production are mobile: work (individuals) and capital (machines, etc.) can easily be changed if the market requires it. This means that there are no barriers to entry or exit likely to partially or completely block the free movement of individuals and capital (customs duties, ban on immigration or emigration, etc.). Thus, transaction costs are so low that they tend towards zero.

1.1.1.3. Homogeneity of products (quality is the same for all products)

Within this perfect competition, consumers cannot differentiate products X sold by one company from the same products X sold by another company. Consequently, these consumers cannot be retained by a company by means of an instinctive sign such as the brand, geographical location, etc.

1.1.2. The perfection of competition

Between perfect information (complete and free) and the non-existence of coalitions, the perfection of competition is assured.

1.1.2.1. Market transparency

At anytime and anywhere, the consumer has perfect information (complete and free) on the market: technical characteristics of the product, selling price, quantities offered. This

transparency condition logically has the direct consequence of setting a single price for the sale of a product who decides on the quantities exchanged, he is therefore the supreme arbiter of collective life.

1.1.2.2. Non-coalition

The coalition between economic agents cannot and must not exist. Alliance and cooperation between economic agents are incompatible with perfect competition since these practices are likely to call into question price setting by market mechanisms. Indeed, an alliance between several agents (companies or consumers) can increase the sphere of influence of each agent, giving it the position of leader, of « price maker ». To verify the conformity of the Digital Platform Economy to the two categories of hypotheses (purity and perfection), in the following, we examine the character of new economy....

1.2. Digital Platform Economy and Uberization in progress

A necessary evolution or a syndrome?

The comments made here are not aimed at an exhaustive analysis of the consequences of the Digital Platform Economy on the theoretical foundations of the economy but rather at highlighting « sensitive » points that we felt were urgent to clarify: Is this an evolution or a revolution that needs to be characterized? note that we are rather interested in multi-sided platforms: those which play the role of intermediary facilitators of interactions in a context marked by reticular coordination where economic agents suffer and benefit from network effects.

1.2.1. Digital Platforms Economy: new or not new?

If the digital platforms to which it is subject all respond to the model (Booking, doctolib, eBay or RnB) they are distinguished by their « business model » or the services they provide. Since Digital Platforms are part of and subject to the effects of networks, it is not surprising that they are typologically the thing and/or its opposite: transactional or non-transactional Digital Platforms: the first (of the booking.com type) are remunerated in proportion to the transactions carried out (according to percentage). The second (such as SeLogger.com) only initiate transactions on the Digital Platform to conclude them outside and thus choose other pricing strategies. Let's give another, more useful classification to these Digital Platforms based on the services they provide to users:⁸Marketplace, Airbnb, Uber which offer ordinary services such

⁸Many platforms combine several services, adapted to their different user groups (GoogleSearch) or also play an infomediary role, which is not its primary function, through its recommendation system (Amazon).

as Search, recommendations, reservations and also offer trusted third-party services such as secure payments and Matching. Then there are Digital Platforms Software such as game consoles (PlayStation, XBOX), operating systems (Windows, iOS), application stores which offer tools for third-party developers, implementations of standards and interfaces to reduce application development costs. Digital Platforms including Content financed by advertising such as online newspapers, specialized information sites, YouTube and whose objective is to connect the audience and the advertiser (and sometimes content producer). Finally, Digital Knowledge Production and Management Platforms (infomediaries) such as « TripAdvisor and Yelp » whose specialty is the collection and aggregation of data, the pooling of data, the processing of information in order to generate new services. A priori, the Digital Platform Economy is not that « new » from a theoretical point of view because it does not really call into question (at least not in a way radically different from the old economy) the scientific bases of economics. However, it is not a question of denying the obvious either; The use of platforms is a revolution, both technical and cultural, which opens up extraordinary perspectives, and which has shaken up the competitive situation and the way players play. So, « new » or « not new » is the Digital Platform Economy? The answer to this question undoubtedly depends on the level of analysis chosen: If we superficially observe the reality of businesses today, the Platform Economy is, without a doubt, new since it changes all the principles and the strategies of companies which are becoming more and more digitalized. If we take a more theoretical point of view, nuance is required since the Digital Platforms Economy can largely be studied using concepts and tools borrowed from its elder, the old economy. It is very instructive to refer to the G.E.E.M and use the concept of competition to understand the impact of platforms on the global economy. If we look superficially at the reality of businesses today, the Platform Economy is, without a doubt, new since it changes all the principles and strategies of businesses that are becoming more and more digitalized.

At the same time, we must keep in mind that the Digital Platform Economy accelerates the process of « tertiarization » of the economy by undoubtedly displacing (destructing) the heart of value-creating economic activity, to use the expression of « creative destruction » used by Henrique⁹ in his work of the same name. Digital Platforms are no longer focused on the production of goods (using the classic production factors which are capital and labor) but on

⁹Henrique Schneider (2017), Creative Destruction and the Sharing Economy Uber as Disruptive Innovation

the provision of a new windfall in the circuit of the global economy: the information. The information economy also continues to develop more than ever, bringing up to date a certain number of concepts and tools, once neglected, to better understand the mechanisms of the Platform Economy.¹⁰ Two points will be particularly addressed: what is the impact of Digital Platforms on competitive gaming? What are the new considerations to respect?

1.2.2. Characterization of Uberized services

Between sharing and individuation, the cascading rise in competition weakens the economic situation of the Uberized provider (self-entrepreneur) but resists despite the resurgence of the old demons of class struggle.

1.2.2.1. « Sharing » or total individualization?

The economic model proposed by Uber is presented as being an « exchange », « platform » model.¹¹, or even « sharing¹² ». In short, a new way of (re)thinking the economy, without constraints, by offering a service that goes directly from the consumer to the service provider. But what are these constraints from which Uber frees us? Among the conditions that taxi drivers must meet to practice, we note, among others, a license, a medical certificate, insurance, and, above all, the payment of taxes and social security contributions. Uber drivers¹³, they have much fewer requirements, particularly in terms of taxes, and practically none for Uber drivers pop¹⁴. As a result, the price of trips is much lower, and can sometimes even be half as much as in a taxi. But what do we lose in the process? Safety for workers, guarantees for the customer and, most importantly, the very mechanism of social solidarity. So who says, « no tax » means no contributions for pension, unemployment and social security and thereby, no investment in public service. This model makes it possible to apply what business circles and neoliberals are trying to impose: reducing « burdens », or even « stripping fat » as much as possible from the State (and especially social security). In addition to questioning the way in which solidarity (social issue) is organized through non-submission to tax and its transformation into dividends

¹⁰With platforms, we don't need a new economic theory. We just need to make the good theories known, the ones that are neglected to be taught to students.

¹¹This platform economy is assimilated to what we can call the data driven economy: new technologies (connected objects, Machine Learning, artificial intelligence, etc.) digital industries, sovereign data infrastructure – digital company that can compete with the American GAFA (Google-Amazon-Facebook-Apple) and the Chinese BATX (Baidu-Alibaba-Tencent-Xiaomi). The ultra-rapid development of these new forms of economic operators is based on a business model which is often located at the limit of the categories usually used in established economic and legal reasoning.

¹²The Sharing Economy is an economic system based on sharing underutilized assets or services, for free or for a fee, directly to individuals. Good examples: Airbnb, Cohealo, BlaBlaCar, JustPark, Skillshare, RelayRides, Landshare

¹³lexpansion.lexpress.fr, Uber had promised them Peru, the drivers discovered the mine (27/3/15)

¹⁴Uber-Pop, the application that allows everyone to become a taxi driver, and simply connects people, simple individuals, offering a ride and ready to drive other individuals ready to pay for the ride.

for shareholders, In this sense, there is therefore a form of unfair competition from Uber vis-à-vis traditional modes of transport. To what extent does this analysis hold true in practice?

1.2.2.2. The resistance of labor to capital: a real false problem

We can already tell the truth: it is a false idea to believe that between labor and capital there is a resistance which in general benefits the providers of capital, the shareholders. However, it is indeed a new scene of the old conflict of capital and labor which is played out on September 9, 1999¹⁵. The question that immediately arises is whether the old demons that link capital to work have been awakened, especially with the electronic support of Digital Platforms? The answer is no. Indeed, the announcement of a workforce reduction plan is not necessarily good news for investors. In the short term, certain defensive restructurings allow the company to offer competitive products that satisfy its consumers and to continue to sell. But in the long term, the fate of capitalists and that of workers are irremediably linked.

Two American economists Hank Farber and Kevin Hallock published a study on the reactions of the American stock market to layoffs since the 1970s¹⁶. Their conclusion is clear: a first observation is representative of almost all of the 41 studies, on American or European data, which had been published until then¹⁷ and according to which the number of positive reactions increases somewhat. A second observation is that on average, the stock price of a company reacts negatively, if we consider the 1970s, 1980s or the 1990s, to the announcement of layoffs out of the 3,000 announcements of job reductions that the authors consider. This reaction is negative. Thus, no company has experienced a lasting increase in its stock price without an increase in the number of its employees (for example, if the L'Oréal share price has increased tenfold since the beginning of the 1990s, the number of its employees doubled during the same period).

Objectively, our economic policies often come up against a characterized invariance of the sharing rule. We would like to improve the lot of workers, for example by forcing companies to pay them more. What then happens is an increased use of capital which, at the cost of higher

¹⁵Immediately after the announcement of the job reduction program, Michelin shares gained 12%. This shocking market reaction only reflects the harsh reality: that day, the stock market believed that Michelin could sell as many tires with fewer staff, and therefore pay more to its investors. But beyond the case of Michelin, does the stock market systematically rejoice in the misfortune of workers?

¹⁶Kevin Hallock and Hank Farber, « Have Employment Reductions Become Good News for Shareholders? The Effects of Job Loss Announcements on Stock Prices, » National Bureau of Economic Research Working Paper, na 7295, 1999. See also Kevin Hallock, « Layoffs, Top Executive Pay, and Firm Performance, » American Economic Review, 1998.

¹⁷These studies are cited and summarized by Nicolas Couderc in his doctoral thesis at the University of Paris 1.

unemployment, reduces labor's share of the pie to its immutable two-thirds level. However, the economy is poorer since all recipes, regardless of their combination of ingredients, have become more expensive and the size of the cake that can be cooked on a given budget decreases. We therefore see here that the idea according to which an increase in the cost of capital (formerly called « primitive accumulation of capital » by Karl Marx) is the cause of a distortion in the sharing of added value remains in the domain of weak hypothesis. The facts in no way reveal this distortion, the appearance of which is less probable in theory.

1.2.2.3.Cascading competition

It must be said that competition is at the very heart of Uber's policy: drivers, organized individually, are not mobilized as part of a group of workers to defend their common interests (salary, working conditions, employment), but independent individuals (who only depend on themselves) and obliged to go ever further in minimizing costs with the same level of quality (homogeneity verified by the circulation of information on the networks). As if that wasn't enough, drivers are always asked to make more effort: first of all, it's about winning over taxis.¹⁸ Then, to play Uber pop drivers against professionals, whose income has fallen drastically since the appearance of the « Uber-pop » versions of Uber.¹⁹, in « Uber-X » or « Uber-XL²⁰ », in « Uber-pet²¹», in « Uber-Pool »²². Finally, push drivers to invest in robotic means of transport. In addition to their precarious situation as drivers with derisory income (often not even allowing for subsistence), the extreme individualization of their working conditions institutionalizes paroxysmal competition between drivers, effectively abolishing any possibility of minimal protection. pushing towards a social devaluation internal to society. We will see that these variations will undermine the hypothesis of the homogeneity of the Uber service.

1.2.2.4.Self-employed, or the nicely named precariousness?

Precariousness is increased a notch when Uber sells it as « a freedom » to work when and how one wishes and by refusing to consider its drivers as employees but as « self-employed », with

¹⁸www.time.com, Uber has pretty much destroyed regular taxis in San Francisco (18/9/14)

¹⁹lexpansion.lexpress.fr, Uber had promised them Peru, the drivers discover the mine (27/3/15) •

²⁰This application can accommodate up to 6 passengers without luggage or 4 with luggage. In the case of 4 passengers without luggage we are in the case of « Uber-X ».

²¹The application that allows you to move easily and safely with your four-legged companion.

²²It's a service that allows you to take trips with several people going in the same direction. This is similar to carpooling.

the option of sub-contracting. estimation of the salary share²³ which should go to the drivers²⁴. Note that we are still in capitalist logic²⁵ of employment, according to which the most remunerative production factor in this case capital (the platform and the algorithms) remains a property of Uber: the latter will in no case be able to claim to eliminate intermediaries and rising prices by putting in direct contact with service providers and customers. Furthermore, a study carried out in the United States shows that Uber drivers are overwhelmingly people who already have a job, and that they use the money earned not as "superfluous", but to meet basic needs. more essential, such as food, bills, mortgage repayments. Thus, we can partially conclude the return of a « primitive accumulation of capital » which does not say its name. K.Marx²⁶ said :» the use of surplus value as capital, its reconversion into capital, is what we call accumulation of capital... I call absolute surplus value, the surplus value produced by the extension of the day of labor and relative surplus value the surplus value which arises on the contrary from the abbreviation of the necessary working time and the corresponding change in the relative magnitude of the two parts of the day"

1.2.3. Uber and the others...

And the others ? It's not just Uber that's playing the deregulation game. Platforms like eBay, Doctolib and Airbnb provide very different services. However, what they have in common is that they are multi-sided platforms, that is to say intermediaries facilitating interactions between several groups of economic agents, marked by the presence of significant network effects. The other known example, this time in the hotel and tourism sector, is Airbnb. This service allows you to rent out your private home, mainly for vacations and as in the case of Uber taxis, nothing is subject to social laws either. Uber and the others have this in common: a context of an offer that is difficult to quantify or qualify, and a great desire to eliminate traditional intermediaries. Even if training is a service that is difficult to standardize, it has been more affected by the Uberization movement. In the name of the technological innovation that these initiatives demonstrate to show the potential that exists to improve many existing services, under the guise

²³« Full-time, we can achieve 8,000 euros in turnover per month, by working 6 days a week, a minimum of 12 hours per day, » explained to Express a manager of the Solidarity Association of Independent Drivers VTC and former Uber driver. From which, however, we must still subtract the commission taken by Uber on tax-free, vehicle rental, gasoline, bottled water, dry cleaning, candy, meals, mobile plan.

²⁴www.washingtonpost.com Some Uber drivers say company's promise of big pay day doesn't match reality (6/9/14) and uberpeople.net, What Uber actually pays its drivers/Definitive Proof they're lying to our faces.

²⁵The changes in employment statuses and forms of work organization, as well as the shifts in responsibilities in the exercise of activity appear to be major and justify the use of the term « platform capitalism ».

²⁶Frank André Gunder, Trier Eddy. « On the accumulation that we call primitive». In: Man and Society, N. 39-40, 1976. Third World political economy and culture. pp. 45-75.

of an alternative economy, these companies escape taxation, the primary source of income for the state regulator. at the expense of reinvestment for the promotion of employment, the establishment of a collective protection system for workers. At this level of analysis, we must highlight the characteristics of this model: it takes advantage of the precariousness of employees to impose working conditions on them that are more convenient for the company. Then, sharing free from any spirit of fairness takes place, as in the capitalist regime following a logic of primitive accumulation of capital increasing the number of multimillionaires. It is a company that offers a service, centralizes the platform and algorithms, sets prices, takes commissions, and flouts the social rights of employees. In short, Uber is effectively doing nothing other than unfair competition and organized social dumping.

1.2.3.1.Movement « *Uberist* »: Between resistance, overexploitation and resurgence of old demons

Maurice Allais makes things clear when he gives his opinion on the Walrasian model: « Walras's work marked a major turning point in the history of economic thought and in the transformation of Economics into a true science »²⁷. The Walrasian model was useful in its time, but its dogmatic maintenance today opposes the progress of economic science.²⁸.The future of Digital Platforms will be the result of the confrontation between the old wishes of neoliberalism and the resistance of the holders of the power of labor who victimize themselves by appropriating the struggle as old as the world of the proletarian layers. The technology has changed but the overexploitation is the same according to the followers of these resistant movements. Is it a new so-called « sharing » economy, beneficial for all, the Uber model was the culmination of aneoliberal dream?If according to Gresham's law. T,bad money drives out good money, to what extent can we draw a parallel with the quality of the services provided via Digital Platforms?Behind the controversies which oppose these platforms (Uber, Air-B&B,) to traditional services (taxis, training or others) hide major social and economic issues.

1.2.3.2.Manifestations of this overexploitation

The series « Super Pumped: the hidden face of Uber », which was broadcast in June 2022 on canal +, looks back on the social climate of the multinational, on the expansion of the transport service application and describing the epic of its very ambitious co-founder Travis Kalanick,

²⁷(Allais, 1971: 332).

²⁸Come on, Maurice. (1994). In search of an economic discipline. First part: pure economics, Second edition, under the title Treatise on pure economics, Paris: Imprimerie nationale, 1952, third edition, Paris: Clément Juglar, 1994. P 92.

often thinking of himself above the law, before his meteoric descent into hell. The symptoms of overexploitation are as follows: first, the violation of labor law: the lobby²⁹ institutionalized, especially in France, has allowed an institutionalized violation of the rights of workers who are granted another status which removes suspicion of systemic overexploitation. Then, the relationship to time and space is disrupted by geolocation tracking for the benefit of shareholders and service users. Finally, salaries are getting lower and lower in the race. Precarious employment occurs first of all through the drop in prices, which alone can ensure an increase in the remuneration of shareholders since the share of profits and the remuneration of other factors of production cannot be reduced. Firstly, we note the heaviness of the investment since the technology which allows the change in the relationship to time and space is more and more expensive since planned obsolescence has taken place. On the other hand, the endangerment³⁰ of the freedom of drivers, by imposing routes to take to optimize their journeys or by imposing on them the use of terms not to be used and by filing cases against strikers who are part of a blacklist.

II. Is the Platform Economy an economy of pure and perfect competition?

How does the Digital Platform Economy transform competition models? Does it lead us towards more coopetition? To try to answer this question, the five founding hypotheses of pure and perfect competition are, one by one, confronted with the reality of the Digital Platform Economy.

2.1. Digital Platforms and classic hypotheses

2.1.1. The Homogeneity of goods and the transparency of markets and the Platform Economy (hypothesis 1 and 2)

Undoubtedly, the use of Digital Platforms as a distribution channel improves the transparency of a market thanks to all the information available to the potential customer. From this point of view, he can therefore make his purchasing decision by fairly quickly having a general overview of all the competition's prices. This search for information can be done directly by searching for information on each of the service providers' sites, using applications or using

²⁹« The Uber Files reveal the extent of the lobbying put in place by Uber to conquer the world » is the title of the article published on France culture on July 10, 2022 written by Jacques Monin, I.C.I.J (International Consortium of Investigative Journalists)

³⁰An industrial reserve army is available in Morocco, preventing any increase in wages in the private sector. As evidenced by the article published by Hajjar El Haiti in the newspaper Le Matin.ma on May 22, 2022, the title of which is clear: « The profession of delivery person, between danger and precariousness »

intelligent agents, "specialized purchasing assistants", who make a comparison of all prices on the markets. However, we should not conclude from this that the information is perfect in the strict sense. Besides the fact that information can rarely be considered complete, there remain "clutter costs" linked to the multiplication of information available on the Web and the necessary learning in the use of information search engines.

In addition, the limited capacity of human beings to « absorb » information (what H. Simon calls limited rationality) generates « attention costs »: humans cannot intellectually process all the information (saturation phenomenon) and must therefore use filters. These filters, whose objectives are the structuring and prioritization of information, can be portal sites or specialized intermediaries. Therefore, although prices are perhaps lower on Digital Platforms than on traditional distribution channels, they nevertheless retain a certain heterogeneity which suggests that this distribution method can also generate product differentiation. The latter can undoubtedly be linked to the confidence that the consumer gives to the electronic transaction on a known site: a reader can thus agree to pay more for a book purchased in one virtual library than in another because, by experience or by reputation, payments must be perfectly secure on this site, the delivery time of the book is guaranteed 48 hours. Just like the old economy, the brand is undoubtedly a source of competitive advantage on Digital Platforms, except that it is difficult to assess the sustainability of this advantage in the Digital Platform Economy.

2.1.2. The Atomicity of Supply and Demand and the Economics of Digital Platforms (hypothesis 3)

Due to their size or their bottleneck position, certain platforms with strong market power can be described as « structuring »³¹. According to the French competition authority, a « structuring » digital platform is defined by three cumulative elements: a company having an online intermediation activity with a view to exchanging, buying or selling goods, content or services; a company that holds structuring market power – due to the importance of its size, its financial capacity, its community of users and/or the data it holds – which allows it to control access or to significantly affect the functioning of the market(s) in which it operates; a company that plays a central role for market players, whether they are competitors, users of their services or third-party companies, who must access the services offered by these "structuring" platforms to develop their own activities.

³¹Competition Authority (2020): Contribution of the Competition Authority to the debate on competition policy and digital issues, February.

It is a priori more difficult to predict what the typical form of an agent on Digital Platforms could be in a few years. Today, large quasi-monopolistic companies of gigantic size seem to coexist on these markets (the most glaring examples are Microsoft and AOL-Time Warner) and small, dynamic and innovative companies (the famous « start-ups »), each of which business models with their own mode of organization. There are almost no more small automotive industry companies (manufacturers) although there are still quite a few of them in the food industry.

Without prejudging the future of the industrial fabric of the Platform Economy, it seems to us that this bipolarization could persist to the extent that there are a certain number of arguments for the survival of small ones, as well as for the development of always larger: On the one hand, Digital Platforms make it possible, through better sharing of information, a reduction in transaction costs and a demand individualization, to consolidate the room for small businesses maneuver; On the other hand, some of the networks properties tend to generate giants and monopolies.

2.1.3. The Mobility of production factors and the Digital Platform Economy - (hypothesis 4)

Intuitively, it seems that Digital Platforms can undoubtedly be associated with an increase in the mobility of production factors. First, barriers to entry and exit are generally lower than in the old economy, particularly in industrial sectors. For example, if we accept that the computer is becoming a central factor of production, the development of laptops and digital networks theoretically makes any constraint of geographical proximity between the actors virtually obsolete. The development of outsourcing phenomena for various company activities (accounting services, marketing functions, personnel administration, etc.) reinforces this initial intuition. In this context, the mobility of production factors becomes very important, if not total. On closer inspection, however, the reality appears more nuanced for at least two reasons. First, consider that workstations represented a majority of companies' productive capital a long time ago. We therefore see that even in the Platform Economy, the mobility of production capital is questionable. Then, the labor factor is increasingly mobile. Teleworking, often presented as a common form of activity in the Platform Economy, is in reality increasingly demanded by both employers and employees. estimate that workstations represented a long time ago a majority share of the productive capital of companies. We therefore see that even in the Platform Economy, the mobility of production capital is questionable. Then, the labor factor is

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Digital Platforms give rise to heated controversies calling into question competition deemed unfair from « professionals » by « individuals »³². By facilitating the exercise of undeclared work and the activity of individuals, the deployment of Digital Platforms is in fact undermining the artisanal model. In particular, it makes it possible to circumvent the professional rules relating to entry into the profession and the profession exercise. Uber, in particular, has crystallized the debate due to the fact that this platform has set up on land occupied by a regulated, organized and visible profession in the public space: taxi drivers. By connecting users and vehicle drivers, Uber has positioned itself as a competitor to taxis.

The mobility of production factors is also conditioned by the free provision of some services provided on these Digital Platforms. According to their rating³³ for the economic analysis council, entitled « Plateformes numériques: réguler avant qu'il ne soit trop tard », Marc Bourreau and Anne Perrot claim that digital technology is also at the origin of a « free constraint » which weighs on the business model of new entrants. They add that in digital markets, as most services accessible on the internet are free, it is difficult to penetrate the market with a paid model. As a result, it is essential for players to have access to advertising revenue, but online advertising, now based on targeting individual behavior, requires access to Internet users' browsing data, mainly in the hands of dominant players like Google or Facebook. The mobility of production factors in the Digital Platform Economy is undoubtedly higher than in the old economy but in significantly more modest proportions than those described in the General Economic Equilibrium Model.

2.1.4. Coalitions and the Digital Platform Economy (hypothesis 5)

³² Zervas, G., Proserpio, D., & Byers, J.W. (2017). The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry. *Journal of Marketing Research*, 54, 687-705. <https://doi.org/10.1509/jmr.15.0204>

³³ Marc Bourreau and Anne Perrot « Digital platforms: regulate before it is too late », Notes from the Economic Analysis Council, n° 60, October 2020. p 2.

It seems that the increased availability of information and the markets instability are likely to increase the propensity of companies to cooperate. In an economy where the production of goods and services is increasingly complex, and where it is therefore increasingly important to have « know-how » but also « know-how with », the ability of companies to use Digital Platforms to develop the partner portfolio has become a fundamental skill. These cooperations can concern the entire company value chain³⁴, both upstream (towards its suppliers) and downstream, i.e. its customers. The advancement towards the 2nd generation web has precipitated the company digitalization challenge the synonymous with the appearance of new professions (the "community manager", the reputation manager, the web project manager) following the creation of knowledge and co-production, exchanges and development of the so-called Social Web and emergence of web communities. Thus, we have evolved towards web interfaces, Collaborative Digital Platforms, making it possible to make collaborative work visible, facilitate and organize online with the aim of improving productivity for companies. Their objectives, among others, are project management and management, access and sharing of knowledge within the framework of corporate social networks (documentation, methods), co-production of content supported by community Digital Platforms. We are gradually moving away from the competitive model which banishes any coalition with the aim of atomicity being the only guarantee of the competitive aspect of price setting. We will see if the knowledge of agents' preferences and the homogeneity of the economic field of the Digital Platform Economy are always taken as hypotheses or they are real. We are gradually moving away from the competitive model which banishes any coalition with the aim of atomicity being the only guarantee of the competitive aspect of price setting. We will see if the knowledge of agents' preferences and the homogeneity of the economic field of the Digital Platform Economy are always taken as hypotheses or they are real. We are gradually moving away from the competitive model which banishes any coalition with the aim of atomicity being the only guarantee of the competitive aspect of price setting. We will see if the knowledge of agents' preferences and the homogeneity of the economic field of the Digital Platform Economy are always taken as hypotheses or they are real.

2.2. Other « hypotheses » to assess?

³⁴Defined as all the activities that the company must carry out to design, manufacture, sell and distribute its product.

Two very important hypotheses for the reconstitution of a normative economy must be appreciated, namely the Homogeneity (or heterogeneity) of the economic field of Digital Platforms and that of the a priori knowledge of the agents' preferences.

2.2.1. The Agents' preferences

Personal data is, more than ever, at the heart of the platforms' economic model. Facebook and Google, as they did in France, agree to give alms to the media and thus further establish a relationship typical of suzerainty³⁵, a movement which finds its origins in the increasingly increased distrust of citizens towards States and Nations. The current Digital Platforms which certainly ride on a general distrust of institutions but which would like to recover this support and this confidence for their own benefit. On the Internet, simply consult the databases to obtain information on the preferences of economic agents. These have behaviors assimilated to those of a homo-economicus not because they react everywhere and always in the same way, but because we can always have information on their behavior which makes it possible to build an economy normative based on speculation. However, does the information on the behavior of agents include at the same time their membership in a social organization, in an economic system and consequently, the concept of need which has a social and not an individual, subjective character? By analyzing the Digital Platforms Economy and referring to neoclassical analysis, we can only abstract from the socio-economic conception of need and refer to the subjectivist hypothesis of innate need. This conception implies that preferences are said to be independent of the economic system. The indifference map is independent of prices and income. We therefore leave aside the question relating to the process of forming preferences and creating needs. The indifference map is considered innate and once drawn, we take into account prices and income across the budget line. In fact, needs are not independent of prices and income. With each variation of these, the budget line changes. The indifference curves shift since the variations influence the preferences which thus modify; therefore, the indifference map is modified in turn. However, if the curves change each time prices and incomes vary, it becomes impossible to find an equilibrium point; the equilibrium solution is indeterminate. Furthermore, in utility-value, three variables are distinguished: quantities, prices and utility.

³⁵This is a situation in which a region or nation is dependent on a more powerful entity that grants it limited domestic autonomy but controls its foreign affairs. In a suzerainty relationship, the more powerful entity, or person at its head, is called the suzerain. This situation differs from sovereignty in that the tributary has limited autonomy.

The first two are objective because they manifest themselves in the market, utility is subjective. There is therefore an incompatibility between objective and subjective variables.

2.2.2. Homogeneity-Heterogeneity of the field of Digital Platform Economy?

In the context of the Platform Economy, the hypothesis of the homogeneity of economic agents is renewed following the universal nature of the Internet. That said, the rules of conduct are no different. By homogeneity we mean the fact that individuals are subject to the same rules of behavior, they use the same support giving them information that is approximately similar in quantity and quality. The notion of size - the number of people in a group - is no longer important. This means that the communication problem no longer arises. However, the homogeneity of individuals is not a realistic assumption but is based on reasonable considerations. Clearly, individuals in the Digital Platform Economy are taken into consideration individually, that is to say that the databases on their consumption habits of purchase are personalized. The capacity to process all this information allows us to consider as if all individuals could be represented by « a single individual » who is subject to a certain behavior rules' number. Therefore, the homogeneity hypothesis is dependent on two notions: the individually available information on the behavior and economic agents' intentions, and the behavioral rules to which they are subject. The Digital Platform Economy presents itself as an « open society » of individuals who can feel closer to each other because, on the one hand, there is a very great fluidity of information which circulates between them and on the other hand, they are subject to the same rules of behavior.

JK Arrow's quote (1974)³⁶ serves as our argument: « It is easier to communicate with others when they have the same approach or the same language, literally and figuratively ».

Does the hypothesis of homogeneity of behavior if it allows cost savings and nourishes the intelligence of economic processes endow the economic agent with an identity and therefore with sovereignty? could we claim a state where we can do without all the institutions which found the subjects as is the case of the civil state³⁷. These principles push to their extreme the programs of frictionless transactions, stemming from the firms' theories (Coase, 1937 Williamson, 2002).

2.3. The coincidence of reality (UBER) and its representation (WALRAS)

³⁶JK Arrow (1974), pt. Cit. p. 120

³⁷The expression is used in particular for this Enigma project at MIT to provide with the blockchain a self-administered digital identity on an unfalsifiable register without a referent or without a trusted third party.

Everything suggests that there may be a renewal of the Walrasian model and above all that the majority of the founding principles of this model are being realized thanks to the integrated information supports that are the Digital Platforms. Can we claim that within the framework of the economy supported by Digital Platforms, has the distance between reality and its representation been bridged? Can we assimilate the freeness of some information services to the free price-setting operations carried out by the auctioneer within the framework of the General Economic Equilibrium Model? Does the « Walrasian demon », once considered « as » a fiction, have a real representation within the framework of the Digital Platforms Economy? Let's examine the coincidence of reality and its representation through the following four essential points:

- (i) The effective existence of an entity fulfilling the role of the Walrasian demon;
- (ii) Who is responsible for the authentication/identification of digital agents?
- (iii) Is the observation of present « market failures », supported by Digital Platforms, on the agenda?
- (iv) Possible new links between supply and demand for « common goods »

2.3.1. A real representation of the « Walrasian demon » in the Digital Platforms Economy

Let us recall his role in the economy, the auctioneer's task is to: Announce a price vector; Collect offers and requests; Confront them; Establish prices; And announce them. Indeed, within the framework Digital Platforms Economy, the operation is carried out in the same way, with one difference: infomediaries whose essential function is to collect information on goods and services (quality, reserve price, availability, payment terms, etc.), provide all this information to economic agents. This information replaces the price vector. They then receive (individual) offers and requests from agents at this price. If the terms of trade³⁸(quality, price of goods and services exchanged, timings and other modalities) correspond to the expectations of the requester (supplier), these markets are in equilibrium and transactions can be carried out within the terms announced. If they do not coincide, no transaction takes place and the infomediaries try to direct the agents towards other partners whose request is close to the offer already made, and the operation is repeated until They find equilibrium terms of exchange, that is to say those which equalize supply and demand. As with the Walrasian commissioner, infomediaries possess the capacity to experience « for free », at infinite speed and computational capacity. However,

³⁸We borrowed this concept from Pierre. Dockès (1999), le pouvoir et l'autorité, E. Economica.

we must not exclude the existence on the web of goods and services whose prices are already determined by a monopoly or a monopsony. This means that there are transactions which take place out of equilibrium, in other words whose prices are defined upstream.

Since the beginning of the advent of businesses supported by the Internet, the most influential infomediaries have played a central role and are partly confused with GAFAM (Google, Apple, Facebook, Amazon and Microsoft), these digital giants which own most of the digital market share, whether in terms of products, services or profits. In the digital information ecosystem, these infomediaries (media or non-media), a sort of interface between those who produce content and those who consume it, by helping to guide the media's editorial offerings, in particular by developing so-called "native" formats. » (the exclusivity of the publication) or mobile conversational (like WhatsApp or provided by chatbots), are more than ever inevitable players in the distribution of content.

The different functions of infomediaries - as for the crier - are oriented towards a single goal: to provide economic agents with the most complete information possible on the goods and services terms' exchange. It should be specified that infomediaries provide all information, including that contained in the pricing system. Infomediaries concretely replace the Walrasian crier and ensure, thanks to an information abundance and an automatic platform economy regulation. However, if in the G.E.E.M the « demon of Walras » bears no cost to carry out all the operations, the infomediaries see their costs tending towards zero without canceling each other out³⁹. Thus, we must always accept the gap between the reality and its representation. In other words, we can't completely move beyond « as if » because « Walras's demon » always remains a fiction. It must still be remembered that economic agents are not obliged to know all the theoretical equations to solve them, but it is enough for them to observe the practical solutions proposed by intelligent agents on the Internet to realize that certain markets function practically like the theory describes it.

2.3.2. The Digital Platforms Economy: Identification and authentication?

³⁹The work of Franck REBILLARD and Nikos SMYRNAIOS, we feel the description of a socio-economic collusion and an editorial dilution between Internet infomediaries and media companies despite an evolution that is both more integrative and more asymmetrical in these relationships.

Franck REBILLARD and Nikos SMYRNAIOS, « What « platformization » of information? Socioeconomic collusion and editorial dilution between media companies and Internet infomediaries », *tic&société* [Online], Vol. 13, No. 1-2 | 1st half of 2019

like for the « real » economy, reputation, brand, trust, accreditation and labeling agents... in short, everything that allows the construction of a relationship of trust between suppliers and applicants is of paramount importance. In the case of Digital Platforms, the concern for identification and authentication is always more important than ever to carry out transactions in complete security. Far from expectation, the large-scale implementation of blockchain-based digital identifiers has been floating around for some time, but has found itself in the spotlight with the recent boom in unique non-fungible tokens (Non Fungible Tokens).), which would allow users to be protected since they have their personal data « in sovereignty »⁴⁰ and will share them in a partial or selective manner with their service providers instead of transmitting their full identity. Also, users of digital identifiers based on the blockchain will have an unexpected opportunity to save time and thus guarantee the optimization of the resources of administrations and private companies.

2.3.3. The failures of the current markets?

Francis Bator (1958)⁴¹ in his famous article denounced the phenomena which break the market equilibrium-Pareto optimum link. It should be noted that two major phenomena which cause the partial failure of market logic persist. The first relates to the externalities of the Internet medium and the second concerns the underlying problem of managing a public good.

2.3.3.1. Externalities⁴² of the Internet network

Without the phenomenon being exclusive to the Internet, the network of networks is the seat of innovations in terms of managing externalities between activities. The Internet economy is today marked by the systematic exploitation of externalities between activities with different logics. The information and services provided by non-commercial sites attract users to the Web, but only the resources provided by investors driven by commercial logic make it possible to finance the development of the network. In the same way, only commercial transactions will ultimately make it possible to generate the margins necessary for private investments, but the realization of the latter implies the provision, on a free basis, of a whole range of services

⁴⁰ « Self-Sovereign Identity », or informational self-determination according to Christopher Allen, « Forging self-sovereign identities in the age of the blockchain », conference Rebooting the Web of Trust, Nov 2018, online, <https://bitcoin.fr/christopher-allen-blockchain-et-identite-video/>

⁴¹ F. Bator (1958), The anatomy of market failure, Quarterly Journal of Economics – Vol. LXXII – No. 3.

⁴² We adopt the definition proposed by Pigou: "A person A, by rendering a service, for which payment is made, to a second person B, incidentally renders services or causes damage to third parties (who do not produce them) such that no payment can be made from the beneficiaries nor any monetary compensation disbursed for the benefit of the injured parties. (Quoted in Y. Moulrier-Boutang). We believe that there are externalities whenever there is interdependence of the production and consumption functions of producers and consumers and that the price system ceases to be the sole agent of information and implementation. officers' report.

(access to the network, search for information, provision of advice, etc.) to potential swingers. Ultimately, the provision of these services for which consumers are not prepared to pay cannot continue to rely on the disinterest of a certain number of institutions and the losses of private investors. The development of the network will therefore involve a redefinition of relationships, particularly financial, between those who provide services likely to be subject to remuneration from their beneficiaries, and all those who provide resources, free of charge. essential for the former to take place without it being possible or desirable to exclude from access to these resources users who refuse to finance their production (problem of collective goods).

2.3.3.2. The problem of the Public Good and new links between supply and demand

New links between offers and demands based on donation or barter: current practices, of which Digital Platforms are the headquarters, are based on the establishment of new types of links between supply and demand, which is based in part, on the public origin of the Internet network. Indeed, the military and scientists behind the development of the Internet had no reason to develop a commercial logic. That of barter or gift was more natural. From these roots date the "peering" agreements between Internet operators who do not exchange their traffic on the basis of reciprocity rather than charging for each packet of information sent by the subscribers of one and transported by the network of the other. From here also comes the practice of free software, where software source codes are made public so that anyone can develop new applications from the existing base. This is also the origin of the notion of free service. These practices have continued in the commercial Internet because they have proven their effectiveness. Firstly, the costs of exclusion (encryption, effective use of intellectual property instruments, etc.) frequently prove prohibitive in relation to the capacity to promote certain types of services on a commercial level. Second, when there are increasing returns to adoption—that is, benefits to using a resource as widely as possible—then everyone, including the owner of that resource, can enjoy a greater private benefit if it is available free of charge since this promotes its diffusion. This is the case, for example, of a technical standard developed by Google, because if it becomes dominant the latter benefits from a certain competitive advantage due to its mastery of the reference technology. This can also be the case for knowledge since the inventor of a new idea can, by disseminating it, encourage the improvement of his initial idea... and benefit from it. Third, providing services for free helps build resources — for example, audiences, awareness, skills, user files, etc. — which can be exploited on a commercial basis (advertising, marketing, consulting, derivative products and services, etc.). We have seen that

most of the hypotheses of the G.E.E.M are renewed. Is this enough to say that the Digital Platform Economy has a normative character? It will not be a discovery, but the institutions (private or public), alongside that of prices, play a very important role in the regulation of the Digital Platforms Economy as being a part of the socio-economic fabric.

Conclusion

What overall conclusions can we make regarding the « competitive model of Digital Platforms »? Perhaps what characterizes this « new economy » is above all the complex relationships it maintains with the model of pure and perfect competition. A double movement seems to emerge: on the one hand, the Digital Platforms Economy is closer to pure and perfect competition since some of its hypotheses are rather reinforced by the observation of the markets, supported by the said Platforms, and which are more transparent and undoubtedly more questionable than traditional markets. Then, this economy seems to offer goods and services at lower prices but without eliminating differentiation; On the other hand, it moves away from it and moves closer to the coopetition model.

The Digital Platform Economy therefore borrows from both the classic competition model and the coopetition model: it could therefore prove to be a harbinger of new forms of competition: « Platform-coopetition », « Platform-competition ». Furthermore, it bases the functioning of its markets on a certain number of rules arising directly from the central role played by information and communication in the value creation process. Its normativity comes from its ability to calculate the most efficient theoretical prices taking into account the « imperfections » of the real world and the capacity of Digital Platforms to assist economic agents in processing information. Thus, the equilibrium reached is a second-order equilibrium. The possible improvement of any equilibrium situation will be made through innovative institutional construction. An institutional issue is acutely present!

We must innovate through institutional regulation by first seeking the roots of the wealth of nations like the founding father of the discipline did decades ago: education, and especially the granting of knowledge to economic agents, in political economy to enlighten the masses and reform the morals of a nation, as J.B. Say has repeatedly mentioned, which would make it possible to answer the very Rousseauist question of « reform the mores of a nation ». Then, we must fight against « low-cost » work by securing new digital workers through the creation of cooperative activity and employment promotion platforms. Lifelong training would enable

requalification, promotion of employees' careers and their recognition. Going through an institution that regulates, both algorithms and laws that manage workers' rights, is necessary for transparency before it is too late, before the Suzerainty does not transform nations and States into tributaries to entities capable of calling into question the reason for the existence of public institutions: the sovereignty. In total, apart from "possible" informational imperfections and "non-limited" cognitive capacities and despite the presence of Digital Platforms, we could have concluded an almost complete coincidence of the real world, assisted by the latter, and the world theoretical, described by the General Economic Equilibrium Model. What extent does the development of digital technology offer the opportunity to overcome the contradiction between the protection of individual freedoms and the needs of public order as a society rights' guarantor?

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