Sharing Economy : What Reality for this New Paradigm of E-Commerce in Algeria

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Abstract:The sharing economyembodies a new socio-economic system based on the exchange of goods (vehicles, housing, tools, etc.) and services (carpooling, take-back, etc.) betweenindividuals. It is a new paradigmthatfollows the samelogic and uses the sametools as e-Commerce but differs in principle. This economy has becomeglobalized and Algeria has not remained immune to thiseconomicphenomenon. The aim of this article is to provide an overview of the sharing economy in Algeria. To answer the research question, weused a descriptive methodology. The results of the research show thatthiseconomyisembryonic in our country and onlytwocompanies are active in thisfield: Yassir and Heech.

Keywords: Sharing, Sharing Economy, E-Commerce,

JEL Classification Codes:L81, Z13

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1. Introduction

For more than twenty years, society's behavior has changed in terms of daily consumption. In the interest of economic rationality, people, without knowing each other or being part of the same family, agree to live together, travel in the same vehicle, work in the same space and participate in common projects. They decided to join forces in activities such as production, distribution and consumption. In other words, they have a new approach to economics, which involves collaboration and a spirit of sharing: it is commonly referred to as "the collaborative economy" or "the sharing economy".

Several factors have contributed to the advent of the sharing economy: the development of IT tools (of the computer tool) and mobile technology (smartphones, tablets), the globalization of the economy, the global economic crises and the environmental watch fueled by ecological awareness of the negative externalities of economic activity.

Indeed, we are witnessing a deterioration in the efficiency of the resources used. Demailly and Novel (2014) agree with this idea, arguing that: "For those in the sharing economy, it is nothing more or less than an underutilization of material goods, capital, and therefore an economic and environmental waste."

We cannot consider the theme of sharing as recent, since the exchange of goods and services has existed, in many different way, for a very long time: agricultural mutual cooperatives, insurance mutual and agricultural cooperatives already existed before the 21st century. In other words, the idea of enjoying the good or service without owning it was part of people's consumption strategies.

Also, the expansion of the sharing economy responds to the contemporary demands of people concerned about the quality of the environment and the degradation caused by the fierceness economic activity on natural resources since the industrial revolution.

The sharing economy is a social phenomenon, in that it has allowed ordinary people to use their surplus resources in many forms and to consume in a mutual and altruistic way.

It is also environmental, because the sharing economy makes it possible to absorb excess capacity (infrastructure needs, car needs, etc.), reduce the exploitation of natural resources, and meet the needs of those that are most disadvantaged in society.

Thus presented, the sharing economy is a global phenomenon. Like other countries in the world, Algeria is familiar with the practices of this economy. However, a question that arouses our interest is: **What is the reality of this new economic paradigm in Algeria and which companies are active in this field?**

To answer this question we have organised our article according to the following points: We began the development of our article with the conceptualisation of the notion of sharing and the transition to the sharing economy. Then we discussed a small literature review on the genesis of the sharing economy, its definition and its foundations. And finally, we took a diversion into the situation of the sharing economy in Algeria.

2. From the "sharing" concept to the "sharing economy"

The act of sharing is natural for us, it responds to a tangible satisfaction (exchange of goods and services), but also to self-satisfaction, to the extent that we put our humanity into practice in the relationships that unite us.

Human beings learn to share from an early age. As time goes by, the sense of ownership gives way to a sense of sharing. Moreover, it is religious beliefs that have inculcated the desire to escape the grip of self-centeredness within us. Monotheistic religions call for sharing through their main foundations and practices.

Thus, the concept of sharing is interpreted in society in several ways: cooperatives, mutual associations, volunteering, etc. The spirit of sharing was embodied in the development of digital technology, which has grown tremendously in recent years:

"In cities, new digital technologies are revolutionizing the way we use transportation, housing, goods and other services [...] The sharing economy has disrupted virtually every sector, creating a multitude of markets based on platforms that connect individuals, businesses and communities." (Hodkinson 2017). Thus, the concept of sharing takes on a new meaning. By associating itself with the economy and integrating itself into the business world, without forgetting its social role.

3. The emergence of the "sharing economy" concept

Etymologically speaking, the word "to share" comes from the Latin partesagere: partes means "to make equal parts" and agere means "to push" and "to activate". As a result, the concept has existed since antiquity and combines the two meanings: to divide an entity for a specific purpose. This can be a sharing of inheritance to benefit all heirs, or a sharing of power to delegate certain responsibilities.

In the notion of the "sharing economy", each of the two words has kept its specificity. Sharing always means leaving a part of something that belongs to us to one or more people, no matter how this action is carried out. It is the combination of the two words that makes the difference.

Indeed, the sharing economy has become the apanage of the solidarity economy and has experienced a staggering growth in recent years thanks to the development of information technology and mobile technology. *Via* software, or more precisely platforms, commercial transactions and meetings between suppliers and service providers are growing exponentially.

The term "sharing economy" was first added to the Oxford Dictionary in 2015. Similarly, the scientific literature on the concept is relatively new. Researchers looked at different aspects of the sharing economy using different names.

Among the names used, we can mention (Khelfaoui, Sedkaoui, 2020):

- Peer-to-peer economy;
- Collaborative economy;
- Collaborative production and collaborative consumption;
- Access economy;
- Consumption based on access;
- Local economy;
- Peer production based on commonality and mesh size;
- Product-system service and on-demand economy;
- Wholesale economics;
- Platform economy.

Nevertheless, the term "sharing economy" is the most commonly used term in the literature (Ranibari et al. 2018).

"We believe that the economy of sharing can be the defining story of the 21st century if we come together to build it". These are the words of Natalie Foster, co-founder and executive director of *Peers.org*. The defenders of this ideology want to fight overconsumption and waste, create social equity and make the shared economy the "economic model of the third millennium".

3.1. Definition of sharing economy

Sharing, in the formalsense of the word, means "to divide a wholeintoseveralpieces in order to ownitwithothers". But in this case, sharing means "to take part in a whole or to benefitfrom a part of a service or good". The representation of the economy according to the sharing dogma (orthodoxy) revisits the economic reality. Does it simplify it? Or does it complicate it even more? We are not ready to decide, but we can argue that this is a new "identification" or "modeling" of the economy.

The characteristic of this model lies in the novelty of the process of sharing goods and services. Indeed, exchanges follow a horizontal and decentralized trajectory between individuals, by modifying the redistribution system (Penn 2016).

The sharing economy embodies a new socio-economic system based on the exchange of goods (vehicles, housing, tools, etc.) and services (carpooling, take-back, etc.) between individuals. It may involve profit-based transactions, in other words, there is a monetary exchange, or it may involve donation, bartering or volunteer activities.

The thingthatoffers all theseopportunities for exchange and makesthis new business model famousis a technical instrument: the "digital platform". The sharing economyisthusalsocalled the "platformeconomy". It isdefined as beingconstituted by tradesbetween "peerswithplatforms, acting as brokers betweenthem" (Nicot 2017). Platformsensure the success of the sharing economybecausetheycontainseveralfeatures: "First, the platforms provide an algorithm for efficient matching between labor providers and users. Second, technology reduces transaction costs because platforms can also facilitate micro-transactions. Third, platforms provide services to reduce or manage the risks associated with market transactions, thereby addressing market failures, in other words, incomplete or erroneous information." (Drahokoupil and Fabo 2016).

The sharing economy is not just a fashionable phenomenon. Today, an increasing number of companies depend on the intensive use of digital platforms, which allows for an easy relationship between supply and demand, in addition to the trust required by users.

Even materialistic consumers, who are more inclined to own things, are attracted to the sharing economy, and projections show that the main sharing sectors, namely carsharing, online staffing, music and video streaming, finance and housing have the potential to increase global incomes from about $15 billion to about $335 billion by 2025. Such exponential growth is a reminder of the importance of the subject in both theory and practice (Ranjbari*et al*. 2018).

It also creates jobs, can support the ecological cause (shared resources, reduction of negative effects) and can remedy excessive consumption (Torfs 2016a). It contributes to the achievement of the objectives of sustainable development, namely the sustainability of the economy.

Like any economic model, the sharing economy draws on basic elements to build its theory, through the formalization of the economic phenomenon and hypotheses, so as to identify its functioning and the scope of its model.

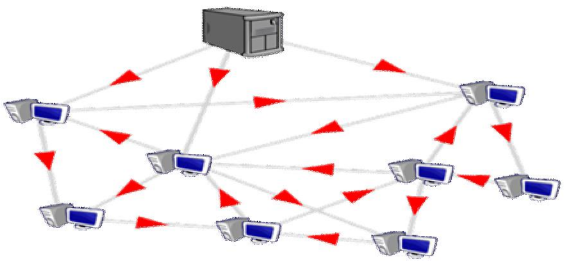
3.2.The basics of the sharing economy

The sharing economyis a multidisciplinary concept supported by socio-economicpartners, entrepreneurs and ecologicalactivists. A consensus on the theoreticalfoundations of this concept does not yetexist. However, defenders of thiseconomy have mobilizedareview of theoreticalthinking in order to identify collaborative practices: the free marketeconomy and P2P economy, the gift economy and the economy of functionnality (Borel *et al*. 2015).

The advent of the Internet has changed the way humans behave in relation to their ways of consuming. The prowess of IT has not only shaken up "the way in which purchases are made between online sales professionals and a consumer. Web 2.0 and its myriad of social networks are changing our relationships with others and also our way of consuming" (Evroux*et al*. 2014).

The tremendous expansion of the social web is embodied in peer-to-peer (P2P) technology, with the initial sharing of media, music and video files. The proper meaning of the word peer-to-peer is "peer-to-peer" or "node-to-node". In this process, the interconnected nodes share resources with each other without using a centralized administrative system. In other words, each node of the computer network is both client and server, unlike the old client-server model.

Figure 1: P2Pdiagram



Source: Evroux*et al*. 2014

The success of the P2P system as a social phenomenon has important economic (rights and taxes) and moral (knowledge exchange) consequences. It allows efficiency in the use of networks and economic performance (reduction of infrastructure costs and exploitation of the high inactive potential at the edge of the Internet (Benoît-Moreau 2006)).

The P2P network was mainly known under the Napster[1] brand. In this application, the P2P network concept was used to share media files, in other words, the exchange of compressed MPEG Layer3 (mp3) audio files. However, P2P is not only about file sharing, it is also about establishing multimedia, video, document and cryptography communication networks based on resource sharing (Schollmeier 2001).

Since its invention, P2P technology has been defined in several ways by computer theorists and professionals. Michel Bauwens[2] describes P2P as "a form of network-based organization, based on the free participation of equipotent partners engaged in the production and use of common resources".

P2P is a technical support and an asset to materialize exchanges between people. It is certainly essential, but it is not enough to make the sharing economy a realistic alternative to hyper-consumption, in terms of an economic model.

1. This music store later became the pioneer of P2P technology and specialized in sharing multimedia files.

Among the theories that have been mobilized to explain the purpose of the sharing economy, is the functional economy. It is an economy that offers an alternative to excessive consumption of products and favors the use of a good over its ownership. The concept of the "service economy" appeared in 1986 at the initiative of Walter Stahel and Granini (Bourg and Buclet 2005).

"The functional economy, sometimes also called the "performance economy", is a concept that was developed by Walter Stahel in the 1980s and was taken over by Dominique Bourg in the 2000s."

It is defined by ADEME (*Agence de l'environnement et de la maîtrise de l'énergie* – Agency of the environment and the control of energy) as the economy which "consists of providing companies, individuals or territories with integrated solutions for services and goods based on the sale of a performance of usage or a usage and not on the sale of goods alone.

The functional economy is a new business model, as it reorganizes the relationship between the market, the company and the consumer. Indeed, since the advent of industrialization, the focus of economic activity has been on large scale production and consumption. The objective of this economic situation was to produce more in order to satisfy consumption while constantly changing goods and services.

The novelty in this concept is in "the technological evolution of the goods that are made available, in this case the extension of the life span of goods, and in the logistics put in place to ensure the closure of the physical flows of goods and materials. It requires the company's business model to evolve" (ADEME 2017). While the two models (service-based and life cycle) seem to be complementary, they nevertheless present some disparities.

3.3. Digital platforms: The cradle of E-Commerce and the sharing economy

Since the coming of the third millennium, the world has experienced a technological revolution under the "influence" of smartphones and tablets. The multi-functionality of these tools allows users to adopt new practices that previously required a fixed tool or the need to travel around.

These "gadgets" are intelligent multi-purpose devices. They act as digital office assistants performing some of the functions of a laptop computer. The benefit of these devices is time-saving, in addition to the downsizing of resource consumption by offering the possibility of sharing goods and services, such as car sharing or carpooling. Uber, Ubereats and Airbnb are companies that operate in the collaborative economy and convey an innovative, non-traditional message, through a culture that favors use over ownership and sharing over undivided ownership. The technical basis of these technological tools is digital platforms, which contribute massively to the digital economy. They connect service providers and customers, at a cost.

Digital platforms play a key role in the development of the sharing economy, to the extent that it has been nicknamed the "platform economy". However, one does wonder whether this name is justified or whether it is just a metaphor.

The French Digital Council[3] describes digital platforms as follows: "Through their role as intermediaries and their place in the digital landscape, they effectively influence relations

[3]. The French Digital Council (CNNum) is a French consultative commission created on the 29th April 2011. The CNNum is responsible for studying digital issues, in particular the issues and prospects of the digital transition of society, the economygital technology.

between users and producers of goods and services." The emphasishereis on the intermediate nature of platforms and how they influence relationshipsbetweenusers. It alsomeansthatthis description isgiven to anydigital space that links individuals who are motivated by the same objectives, be it economic, social, scientific, cultural or political.

Figure 2: Examples of digital platforms for entertainment and communication services

Additionally, social networks such as Facebook, Twitter, Instagram and WhatsApp represent digital platforms for social use, whose data-sets can be put to analysis and generate relevant information.

Digital platforms are a technical contribution to collaborative economy practices. They are precursors, whose aim is to facilitate access to goods and services by saving time and resources. They have given renown to the collaborative economist and have greatly contributed to changing the behavioral style of consumers. The ability of platforms to disrupt an entire economic system, established over decades, resides in four characteristics mentioned in the report of the French Digital Council, which make them an enabling environment for the development of economic relations.

Digital platforms have led to the digitalization of the economy, but also to the digitalization of society. Collaborative platforms, among other digital platforms, embody the ethics of sharing between individuals. They are considered as a technical intermediary in a transaction (for profit or non-profit) of goods and services between individuals or professionals.

Commercial transactions, in the context of the sharing economy *via* digital platforms, are undergoing a remarkable evolution. It is the direct result of individuals' addiction to the Internet, but also a response to the expectations of individuals who yearn for a more egalitarian economy.

Digital platform business models are growing because they have changed commercial "traditions" between consumers and producers, and have invented new ones by removing the distributor from the equation. Nevertheless, for some researchers, the concept of the platform economy does not reflect the sharing economy, because its vocation is purely commercial and not about sharing.

4. The sharing economy in the Algerian context

The sharing economy is technically based on digital platforms. But economically, they are developing thanks to start-ups. All over the world it is small entrepreneurs who have taken on this responsibility. Also, the growth of this new economy is dependent on the technology and infrastructure of the internet.

Thus, the sharing economy in the Algerian context is on the one hand recent. On the other hand, it faces certain problems. The absence of online payment mechanisms, an ecommerce that is struggling to develop, the lack of funding and support for the creation of start-ups, are all obstacles to the emergence of an efficient sharing ecosystem (Hamdad 2020).

The sharing economy appears to some as an e-commerce. Of course, they are both dependent on the Internet and ICTs, but they are different in function and principle.

Indeed, the sharing economy embodies a new socio-economic system based on the exchange between individuals of goods (vehicles, housing, tools, etc.) and services (carpooling, repossession, etc.). Thus defined, there are two start-ups in Algeria operating with the principle of the sharing economy, Yassir and Heetch.

4.1. Start-up Yassir

Inspired by the American giantUber, Yassir is the first mobile application in Algeria (of Algerian nationality) to connectuserswith taxi drivers. Yassir connectsuserswith taxi drivers, who are geo-locatedusingtheirsmartphone. The fareiscalculatedaccording to the distance and estimated time of the journey.

The platform charges a commission of between 20 and 25% of the cost of the journey. This principleismodelled on that of the American giantUber, whichis not present on Algerian territory and recentlythrew in the towel in neighbouringMorocco[4].

Figure 3: Yassir Start-up

Source: https://ledesk.ma/encontinu/yassir-lappli-algerienne-de-reservation-de-taxis-debarque-au-maroc/

In the absence of an online payment solution, Algerian developers have had to adapt. UnlikeUber, payment for a ride on Yassir is made in cash, for the moment. "Somevehicles are equippedwith an EPT [electronicpayment terminal]. Our long-term goal is to eliminatepayment by cash," says Mahdi Yettou, co-creator of Yassir. In the currentscheme, taxi drivers collectbeforepaying the companyits part.

[4] https://www.jeuneafrique.com/560363/economie/start-up-de-la-semaine-yassir-lapplication-mobile-qui-veut-uberiser-le-transport-en-algerie/

Foundedin 2017, Yassir isnowpresent in six countries and 45 cities. It isused by over 8 million users. Popular in the Maghreb region and parts of French-speakingAfrica.Yassiralsoprovidesmeal and shopping delivery services, as well as financial services. These services generateincome for over 100,000 partners, whichinclude drivers, couriers, traders, wholesalers, amongother traders and workers in the sharing economy[5].

Yassir is expanding rapidly and has set the bar high by fundraising $150 million in Series B funding from leading global investors. The investment was led by BOND, one of the largest venture capital firms in Silicon Valley, with the participation of, among others, Y Combinator, the world's largest startup accelerator.

Having raised $193.25 million in the five years since the company's launch, it is now the most valued startup in North Africa and one of the most valued companies in Africa and the Middle East. With this latest round of funding, Yassir plans to expand its reach in the region[6].

4.2.Start-up HeechAlgeria

Heetch is a French start-up founded in April 2013. The founders saw a revival of the Parisian nightlife and the opening of several nightlife venues in the Paris suburbs. The application was developed during the rise of the sharing economy.

Originally, Heetch wanted to make the night more accessible4 and, as it is only available between 8pm and 6am from Thursday to Saturday, it is mainly aimed at young people returning from the evening. 80% of users are under 25 years old and two thirds of journeys are in the suburbs.

Figure 4: Start-up Heech

The application is initially available in the French cities of Paris, Lyon and Lille. Organising a carpooling system, it puts private individuals in touch with non-professional drivers.

In 2019, the Heetch service is now available in 9 cities in France (Paris, Lille, Lyon, Marseille, - Toulouse, Strasbourg, Nantes, Bordeaux and Nice) but also in Belgium (Brussels) and Morocco (Casablanca and Marrakech). In April, Heetch announced its opening in Côte d'Ivoire with the intention of rapidly expanding to other African countries. In September 2019, Heetch launches in Algeria.

[5]https://www.elmoudjahid.dz/fr/economie/yassir-la-start-up-la-plus-valorisee-de-toute-l-afrique-du-nord-191359

[6]Op.cit

Currently, they are the only start-ups operating in the sharing economy in Algeria. It can be said that this new technology is umbrageous in our country. On the one hand, because the oncept of the sharing economy is new. On the other hand, the lack of ICT infrastructure in Algeria, not to mention the absence of e-payment, blocks any financial transaction between partners.

5. Conclusion

The sharing economy, or peer-to-peer economy, has emerged as an innovative mode of consumption in terms of exchanges on platforms offering goods and services between individuals.

If the notion of sharing use is at the origin of the term, this sharing or lending can be free or paid for. Moreover, we can note a more or less strong commodification of the sharing economy depending on the sector of activity in which the desire is no longer to optimise a mode of consumption but to generate income. The notion of the sharing economy thus becomes quite relative.

The most "emblematic" areas of activity of the sharing economy are, for example, accommodation sites between individuals, carpooling sites or rental sites between individuals (boat, camping car, etc.).

The essential tool for the success of the sharing economy are digital platforms. Given the globalisation of the internet and ICT, the sharing economy has become a worldwide phenomenon with disparities between developed and developing countries. Indeed, Algeria has not remained immune to this phenomenon. Thus, two start-ups are evolving in this field, namely Yassir, which is a company of Algerian nationality. As for Heech, it is a French company established in Algeria.

Despite obstacles such as the lack of fluidity of the Internet, the absence of e-payment, and legal problems, these companies are operating and developing outside Algeria, particularly Yassir.

The sharing economy offers many opportunities and our country is especially rich in intellectual potential. It can therefore find a favourable ground for its development.

Some Algerian companies have had the intention of regaining the field of e-commerce by creating quality sites, but they are confronted with problems of online payments and legal aspects that must essentially be managed in order to benefit from this mode of commercial exchange on the Internet in the same way as the other countries of the world.

6.

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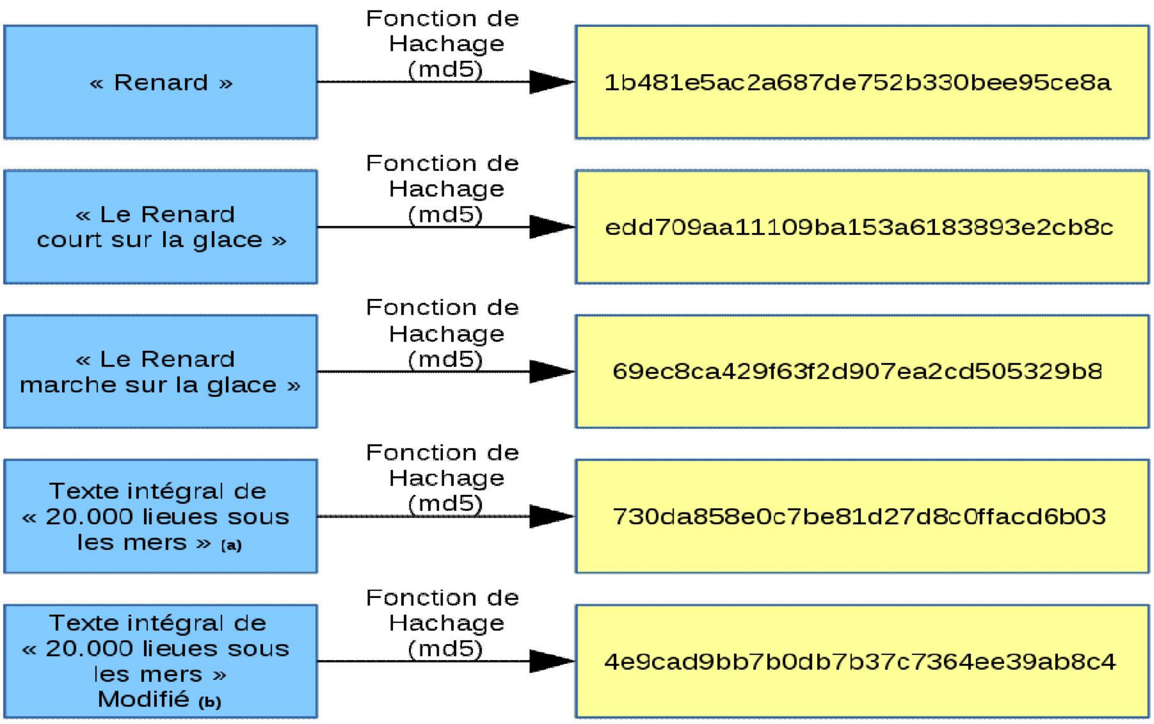
7. Appendices

Appendice 01: Examples of hashes



Appendix 02: The explanation of Figure 02

In the first step (1) an agent A registersarequest to an agent B to write to the blockchainregister (e.g. financial transaction, accounting entry, contract, delivery, transfer of ownership...). For this registration, agent A uses software whichwill transmit the request to users, gatheredwithin a network (e.g. Internet). This entry by agent A isthenadded to a "block" of information, whichgathers the entry requestsentered in the register by all usersduring a certain period. This block isthenplaced "in queue" (step 2).

The validation of this block and the actualwriting of its information within the blockchainwillrequire validation by a consensus of the network users. This validation is the keystep of the Blockchain technology (step 3). It is a cryptographicprotocolthatallows the validation of block information via consensus of the network users. The userswho carry out this validation are called "miners".

The latter provide the network with the computingcapacity of their computers in order to carry out the cryptographicoperationsnecessary for the validation of information. The purpose of theseoperationsis to enable the identification of blocks of information withoutrevealingtheir content, whichallows the integrity of the entries to beverified.

When the block isvalidated by the user consensus, itisvalidated, time-stamped and added to the blockchain (step 4). This validation isirreversible, the block isadded in an orderlyfashionfollowing the others in the register. This chain of blocks is accessible by all the members of the network (agents A and B in the example of figure 1) whohold the same copy of the information recorded in the blockchain (step 5).