



Ownership at the stake (once again): housing, digital contents, animals and robots

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Ownership at the stake (once again): housing, digital contents, animals and robots

Sergio Nasarre-Aznar

Abstract. The liberal conception of ownership of the 19th century is now more remote than ever. This paper discusses the questioning around the current suitability of ownership both for accessing to certain property (housing, to be more specific) and chattels (digital contents, animals and autonomous robots) that have recently flourished, favored by technological advances and the change in the values of the millennials in a context of crisis (since 2007), and see if, at the end of the day, it is adequate or convenient to substitute (e.g. through alternative housing tenures, such as intermediate tenures and collaborative housing, licensing digital contents) or to erode or even eliminate it (e.g. owning animals and robots, tokenization through blockchain).

Keywords: ownership, housing, technological advances, blockchain.

1. The progressive questioning of liberal ownership

Ownership in art. 544 French *Code civil* 1804 or art. 348 Spanish Civil Code 1889 is conceived as liberal and it includes the right to use, to take fruits and to abuse of goods and property (*ius utendi, fruendi et abutendi*¹). When the modern Civil codes were passed, it was already clear that there should be some neighboring limitations to it and its exercise (e.g. boundaries, nuisances, abuse of law, servitudes; at art. 678 *Code* or arts. 7.2 and 1908 Spanish Civil Code). But then, a second generation of limitations to ownership came as it was compelled to fulfill a social function, that is, that the way it is exercised by the owner could not negatively affect the community. Today, both the art. 14.2 of German *Grundgesetz* 1949² and art. 33.2 Spanish Constitution 1978 establish social limitations to ownership (e.g. in Spain the underuse of rural land might threaten the national economy, so it can be expropriated according to the Constitutional Court sentence of 26-3-1987³). Historically, there is a set of German cases that subordinate private patrimonial law to fundamental rights such as *Lüth* (1958), *Handelsvertreter* (1990), *Bürgerschaft* (1993) and *Parabolantenne* (1994)⁴ cases.

¹ *Proprietas est ius utendi et abutendi re sua, quatenus iuris ratio patitur*, based on Digest, V, 3, 25, 11. See for common law the well-known William Blackstone's definition of the right of property: "that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe" (W. Blackstone, *Commentaries on the Laws of England*, ed. J.L. Wendell, vol. 2, New York, Harper & Bros, 1857, 1).

² "Property entails obligations. Its use shall also serve the public good" (official translation from German, available at <https://www.btg-bestellservice.de/pdf/80201000.pdf>, last accessed 12-12-2017).

³ RTC 1987\37.

⁴ This last case is paramount to right of ownership: a landlord did not allow his Turkish tenant to install a satellite dish (landlord's consent was needed according to the contract signed by the parties and ordinary courts have judged according to this) but the German Constitutional Court found out that this denial was against the tenant's constitutional right to

But since 2007, the year in which the last financial and housing crisis started, a third step towards questioning the adequacy of ownership to access to goods and property has begun that might affect its robustness⁵. Reasons may vary but three elements have facilitated it: technology change, financial instability and change of values of the millennial generation in a context of crisis⁶. Thus, should anybody still be entitled to own anything they want or, on the contrary, less affluent people should be excluded from ownership and left for “minor tenures” such as renting, getting licenses or sharing? Is all in all so important to own your home or your music? Can you now own your pet at the same time society considers it as part of the family? Will we really own autonomous robots if they already take their own decisions, or should they be considered subject of rights instead or will they even own us?

The scope of the consequences of this new phase is still to be seen. Above all them, one question arises: whether our civilization (Western, EU, etc.) can survive constantly eroding ownership or without a strong private ownership at all. The collapse of communism (the negation of private ownership by definition⁷) in the last decade of the 20th century has proved that it is not easy. Private ownership was early abolished by Lenin’s Decree 26-10-1917 (by Act 20-8-1918 all private ownership of land in urban communities was abolished), leading to land’s expropriation without compensation; collectivization of rural land brought millions to cities, increasing the pressure for housing stock that lead to generalization of “communal apartments” (exclusive use of a single room, sharing the kitchen and bathroom with other households, with delicate privacy issues)⁸.

Far before, the equalitarian society (*homoioi*; at least for the Spartan citizens, the *spartiates*) of the Spartan in Ancient Greece was based precisely on the ownership of land: *spartiates* were granted the ownership of a plot of land by the State (*kleros*)⁹ to self-sustain and to be able to serve in the military. In fact, Spartan crises began with the insufficiency of that plot of land, the legal impossibility of selling it¹⁰ and the reduction of the *spartiates*¹¹, while the number of underprivileged (the *hilotes* that really worked the *kleros* and impoverished *spartiates*) increased¹².

freedom of information which is present in art. 5 (1) *Grundgesetz*. See the whole discussion at O. Cherednychenko, *Fundamental rights and private law: A relationship of subordination or complementarity?*, *Utrecht Law Review*, Vol. 3, Is. 2 (December) 2007, pp. 4 to 8.

⁵ Krecizer-Levy, Shelly, *Share, Own, Access*, 36 *Yale Law & Policy Review* 157 (2017), p. 194 highlights that values that have been associated to property are freedom, personhood, efficiency and community. In its turn S. Nasarre et al., *¿Puede ser el alquiler una alternativa real al dominio como forma de acceso a la vivienda? Una comparativa legal Portugal-España-Malta*, “Teoría y Derecho”, 16/2014, p. 192, mention as associated values of ownership: from a legal perspective, security, freedom to alienate, access to financing, patrimonialization and right to inherit, exclusiveness and absoluteness; from a psico-social perspective: self-esteem, personal development, pride; and when comparing homeownership to tenancies: stability, autonomy, confidence, tranquility and privacy.

⁶ See also this idea at A. Perzanowski and J. Schultz, *The End of Ownership*, The MIT Press, London, 2016, p. 170. The authors say: “ownership looks like a luxury they [young people] can’t afford”. In its turn, R. Fry, *Young Adults After the Recession: Fewer Homes, Fewer Cars, Less Debt*, Pew Research Center, 21-2-2013, pp. 23 and 29 shows how young adults own less houses and cars that those that did prior to the crisis.

⁷ Although the negation of ownership in our culture can be traced-back at least until the 1st century a.C. to the Jewish-Christian sect of Ebionites according to A. Escohotado, *Los enemigos del comercio*, vol. I to III, 5th Ed., Barcelona, 2017, Espasa, pp. 20 (I) and 623 (III), where the author describes a complete historical evolution of the different enemies of private ownership and commerce.

⁸ See I. Utekhin et al., “Communal Living in Russia”, <http://kommunalka.colgate.edu/cfm/essays.cfm?ClipID=376&TourID=900> (accessed 12-12-2017). See G. Andrusz, *Housing and Urban development in the USSR*, State University of New York Press, Albany, 1984, p. 26 ff for different types of housing tenures in the USSR; by end-1980 the state sector controlled 77% of total urban housing stock.

⁹ Plato Laws 684d-685a.

¹⁰ But since Act Epiteadeus in early 4th century BC allowed donations –even false, e.g. in payment of debts- and to give it in heritage that caused the concentration of plots.

¹¹ Those that lost their status due to their impoverishment due to Act Epiteadeus.

¹² Another cause was the “hidden” enrichment of some *spartiates* due to the expansion of the Spartan Empire. See J. Pascual González, *Grecia en el siglo IV AC. Del imperialismo espartano a la muerte de Filipo de Macedonia*, Ed. Síntesis, 1997, pp. 25 to 30.

Finally, and going back to our roots as human beings, a classical theory of biology considers that natural selection favors the aggressive defense of sources of food (territoriality) when the benefit of accessing them exclusively exceeds the costs of controlling them and this was present already in first groups of Homo Sapiens in Africa¹³.

Thus, it seems that ownership, especially the one related to land, at the end of the day, is in our DNA and in the DNA of our civilization. Locke already said that property was a natural right that arises from labor¹⁴ and Hegel thought that property is to fulfil one's needs and, thus, allows the individual to be free¹⁵.

This paper discusses the recent questioning around the suitability of ownership both for accessing to certain property (housing, to be more specific) and chattels (digital contents, animals and autonomous robots) that have recently flourished, favored by technological advances and the change in the values of the millennials in a context of crisis, and shows if, at the end of the day, it is adequate or convenient to substitute (e.g. through alternative housing tenures, such as intermediate tenures and collaborative housing, licensing digital contents) or to erode or even eliminate it (e.g. owning animals and robots, tokenization through blockchain).

2. New limitations in owning one's home

The economic crisis originated in 2007 in the United States and widespread worldwide through mortgage securitization has heavily impacted housing in many EU Member States in the form of households' over-indebtedness and the subsequent increase of evictions and homelessness¹⁶. The situation for the younger generation is even worse. According to the EU Commission in 2017 "for the first time since the Second World War, there is a real risk that the generation of today's young adults ends up less well-off than their parents"¹⁷.

Thus, there is an increasing common sense and need that housing becomes a true tangible fundamental right for all ("right to housing"), instead of stressing its quality as a financial asset¹⁸. The lack of sensitivity of legislators to this, i.e. not implementing strong, structural and effective measures to prevent, tackle or react to evictions of vulnerable tenants and mortgagors, may lead to erode homeownership at least in three aspects:

a) in some countries, such in Spain, it has led to some judges and courts judging according to "their" equity instead of according to law, delivering the so-called "Robinprudence" that caused legal uncertainty (still visible in 2017) and an erosion of the right to ownership, allowing long defaulting tenants or mortgagors to remain within the property for humanitarian reasons or even permitting (thus promoting) squatting.

b) it has been questioned by some as a type for housing tenure suitable for all types of households, as it has led to some of them to over-indebtedness¹⁹. The promoted idea is to renege

¹³ C. Marean, *La especie más invasora*, "Temas", no. 87, 2017, p. 61.

¹⁴ J. Locke, *The Second Treatise of Civil Government*, nos. 25-27 and 48, 1690.

¹⁵ G.W.F. Hegel, *Elements of the Philosophy of Right*, no. 45, 1821 [2003], Cambridge University press, p. 77.

¹⁶ See the whole discussion and assessment of this at P. Kenna et al., "Pilot project - Promoting protection of the right to housing - Homelessness prevention in the context of evictions", VT/2013/056, European Commission-Directorate-General for Employment, Social Affairs and Inclusion, Publications Office of the European Union (available at <http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=7892&type=2&furtherPubs=yes>).

¹⁷ European Commission, *White paper on the future of Europe*, 1-3-2017, p. 9.

¹⁸ See the UN General Assembly, *Report of the Special Rapporteur on adequate housing as a component of the right to an adequate standard of living, and on the right to non-discrimination in this context*, 18-1-2017, A/HRC/34/51. The report focuses on the "financialization of housing" and its impact on human rights. See also the case ECJ Monika Kušionová v SMART Capital, a.s. 10-9-2014. The Court affirms that: "Under EU law, the right to accommodation is a fundamental right guaranteed under Article 7 of the Charter that the referring court must take into consideration when implementing Directive 93/13".

¹⁹ Around years 2010-2013, 6% of housing mortgages in Spain were in arrears; 16% were in Ireland and 45% in Cyprus.

from owning your property as owning is bad and unnecessary and go for alternative tenures, such as tenancies.

c) accordingly, to find out new forms for accessing to housing, presuming them to be as good as (or even better than) homeownership and as true alternatives to it, like what has happened with the trendy so-called “collaborative housing”.

As the first aspect has been already discussed somewhere else²⁰ let us cover the other two in the following paragraphs.

2.1. The pretended impossibility of a “homeownership for all”

For the first time in decades, the strength of homeownership to guarantee access to housing has been put into question. EU peripheral countries (e.g. Portugal, Spain, Italy, Ireland, Greece, Cyprus), those with highest rates of homeownership²¹, have been the ones more stroke by the crisis. The UNECE²² and the UN New Urban Agenda 2016²³ stated that the reliance on a single type of housing tenure (mainly ownership) should be discouraged as it is unsustainable. The relationship between human rights and homeownership as a secular institution of civil law is tense, despite the civil law has been traditionally in charge of establishing the basic criteria of the order of coexistence among individuals²⁴ and despite art. 1 Prot. 1 European Convention of Human Rights.

Thus, in principle, when the UN requires in the New Urban Agenda a “safe housing option” to guarantee the right to housing for all, there is nothing better than homeownership. But, quite paradoxically, uncontrolled widespread of ownership has been blamed as one of the reasons of the beginning of the 2007 crisis (as it required lending through sub-prime mortgages) and for delivering undesired consequences to over-indebted households²⁵. This have resulted quickly in blaming ownership (as a private law institution) by certain social movements and political trends, that have promoted squatting²⁶ and have passed rules to impose fines, increase of taxes and even expropriations of empty dwellings²⁷, instead of rethinking how homeownership could be useful for everybody.

Thus, at this stage, we need to solve the following question: should anybody regardless their wealth be, in principle, entitled to own their home²⁸? Or should the less affluent be left apart

²⁰ S. Nasarre-Aznar, “Robinhoodian courts’ decisions on mortgage law in Spain”, *International Journal of Law in the Built Environment*, Vol. 7 Iss 2, 2015, pp. 127 - 147.

²¹ See Eurostat data for 2015 at [http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Distribution_of_population_by_tenure_status,_2015_\(%25_of_population\)_YB17.png](http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Distribution_of_population_by_tenure_status,_2015_(%25_of_population)_YB17.png) (accessed 12-12-2017). Eastern (former communist) European countries should be left apart though they have the highest homeownership share, as their problems of losing one’s home are more related to default in paying consumer credits because, generally speaking, they got the ownership of their properties without the need of taking a mortgage, once communism fell.

²² The UNECE, *Draft Regional Report to HABITAT III*, 8-7-2016, p. 66 states that: “Reliance on, and disproportionate support to, one tenure model proved to be unsustainable in the long term, to be insensitive to local housing market volatility, and to be exposed to national and international financial market fluctuations. The evidence from cities points to different tenure needs in metropolitan areas, that can better support labor dynamics in the areas that are key to national economic growth”.

²³ Paragraph 33 states that: “We commit to stimulate the supply of a variety of adequate housing options that are safe, affordable, and accessible for members of different income groups of society”.

²⁴ See, for the Spanish Civil Code 1889, which has been substituted in this sense by the Spanish Constitution 1978, R. Barber Cárcamo, *La Constitución y el Derecho civil*, REDUR, no 2, 2004, p. 40.

²⁵ See the whole discussion at S. Nasarre-Aznar, “A legal perspective of the origin and the globalization of the current financial crisis and the resulting reforms in Spain”, *Contemporary Housing Issues in a Globalized World*, Padraic Kenna (Ed.), Ashgate Publishing, 2014, pp. 37-72

²⁶ See the handbook edited by the PAH (Platform of those affected by the mortgage) on how to squat a flat at <http://afectadosporlahipoteca.com/wp-content/uploads/2013/07/MANUAL-OBRA-SOCIAL-WEB-ALTA.pdf> (accessed 12-12-2017).

²⁷ See a complete discussion on recent Spanish, Catalan and local housing policies at S. Nasarre-Aznar and E. Molina Roig, “La política de vivienda y el Derecho civil” at E. Muñoz et al. (dirs.), *Reformando las tenencias de la vivienda*, Valencia, Tirant lo Blanch, in press (2018).

²⁸ See a TEDx presentation on this at <https://www.youtube.com/watch?v=K7ZTT6Yj0kw> (accessed 12-12-2017).

from homeownership – at least from the streets, neighborhoods or even cities they want/need to live - and leave them with “less powerful” tenures such as leases, like, for example, happens in Germany requiring them to pay upfront – not fundable - up to 40% of the value of the property²⁹? Are we ready for/do we want a society of rich-homeowners and poor-tenants, especially in less strong Welfare States like the ones in EU periphery?

In my opinion, leases cannot be today a true alternative to homeownership in many EU countries as they do not provide the grade of flexibility, affordability and stability that is usually required by households. While a tenant never ends paying the rent a mortgagor must pay off the loan in some years (18 years as an average in Spain in 2017, for example), which is an important risk in moments of vulnerability when her income decreases (e.g. retirement, unemployment). In addition, in many jurisdictions rents are increasingly becoming unaffordable and leases unstable, especially in jurisdictions where a well-working system of rent reference and open-ended contracts do not exist (such as most peripheral EU-countries). Open-ended contracts and a modern system of rent-reference have been identified as two essential pillars of a well-working market of tenancies³⁰.

On their turn, intermediate tenures, such as shared-ownership or temporal ownership introduced in Catalonia in 2015³¹, can be seen as an adaptation of homeownership to the post-crisis context. They can be good alternatives to create a third housing market between tenancies and full homeownership, as they provide enough stability and flexibility³², but avoiding households’ over-indebtedness as ownership is acquired progressively or temporally though the property can be full enjoyed by the shared or the temporal owner.

As a result, a first lesson that can be drawn from the above mention is that, in the field of housing, there is no need to renounce to homeownership if it provides the required (by households, by the UN, by many national Constitutions, by geographers when they talk about “ontological security”) stability, there are not attractive (desired) alternative housing tenures to it and it can be legally formulated in a way by which it could be affordable and sustainable thus avoiding households’ over-indebtedness.

2.2. The pretended suitability of “collaborative housing” as an alternative to homeownership

Also, due to the 2007 crisis, millions have lost their confidence on governments, companies, housing gatekeepers, financial and housing-providers (including social) sectors³³. And this includes the loss of confidence on traditional housing tenures, most especially, homeownership³⁴.

The crisis and the technological advances (most predominantly, the mobile phone and the high-capacity digital data networks) have boosted the use of collaborative economy, especially among millennials³⁵, in many fields, even allowing those less affluent to access to travelling, to

²⁹ Fitzsimons, J. (2014). The *German Private Rented Sector: A Holistic Approach*, Working Paper, March 2014, p. 124.

³⁰ See S. Nasarre-Aznar and E. Molina Roig, “A legal perspective of current challenges of the Spanish residential rental market”, *International Journal of Law in the Built Environment*, Vol. 9 Issue: 2, 2017, pp. 108-122.

³¹ See a full review at H. Simón, N. Lambea and RM. Garcia, (2017) "Shared ownership and temporal ownership in Catalan law", *International Journal of Law in the Built Environment*, Vol. 9 Issue: 1.

³² Thus, avoiding structural problems linked to countries with high share of full homeownership such as less entrepreneurship, NIBY, high commuting, planning limitations, etc. (see G.D. Blanchflower and A.J. Oswald, “Does High Home-Ownership Impair the Labor Market?”, *Peterson Institute for International Economics*, May 2012, Working Paper 13-3).

³³ In Spain, massive protests against banks, rating agencies, politicians, etc., crystallized on 15th March 2011 (https://es.wikipedia.org/wiki/Movimiento_15-M, accessed 12-12-2017).

³⁴ See for chattels, Krecizer-Levy, Shelly, *Share, Own*. The author affirms that: “Millennials own less property than previous generations, and they prefer flexibility, availability and choice to the stability and permanence associated with ownership” (p. 157). The author supports the “re-thinking of established property law conceptions, rules, and doctrines” to favor access and share as true alternatives to onwership, although she acknowledges that these entail property-associated values (p. 218).

³⁵ See J. Hamari, M. Sjöklint and A. Ukkonen (2015) *The sharing economy: why people participate in collaborative consumption*, *Journal of the Association for Information Science and Technology*, p. 10. See about the concept of “co-

private transport (both through well-known online platforms) or to accumulate jobs to complement their incomes. However, collaborative economy has also led to negative externalities, such as disruption in condominiums' lives³⁶, gentrification of neighbourhoods (e.g. through local rent increases) and dehumanization and degradation of cities³⁷ and the precariousness of jobs³⁸.

Housing has not been an exception to this collaborative phenomenon, as there is an increasingly interest in the so-called "collaborative housing". "Collaborative housing" may be understood as collaborative economy applied to the funding, access and organization of housing³⁹. So, we need to answer the following questions: is "collaborative housing" capable of being or becoming a true alternative to homeownership? To which extent do households really want to renounce to property rights or to private space to access to housing in a shared way, similarly to what happened with the old communist "communal apartments"? Are risks of "collaborative housing" the same as those of those actively participating in co-working (less space and risk of becoming a "doer"⁴⁰), co-tourism (less facilities and safety than hotels) or car-sharing (less trained drivers with less labour rights going back 100 years) initiatives?⁴¹ Well, there are cases and cases.

On one hand, while co-living could be a good solution for dependent people that need to be near to services (e.g. the elderly in relation to care or nursing services⁴²), "forced-colivers", that is to say, those that cannot afford neither to buy nor to rent a full property in cities/neighbourhoods with high-demand of housing⁴³, so they may find themselves renting a room and sharing a flat with other families⁴⁴. This is already happening in Barcelona (but also in other big European cities, where "things happen"), in 2017 there were rooms rented for 500 euros⁴⁵, while flats cost 18 € per m2 by mid 2017. This, of course, does not fulfil any of the requirement to be considered "adequate housing" according to CESCR General Comment No. 4: The Right to Adequate Housing⁴⁶.

utility" A. N. Turi, J. Domingo-Ferrer, D. Sánchez, (2017). "Problems in the undertakings of the collaborative economy: co-utility solutions". In: J. Domingo-Ferrer and D. Sánchez (eds.) *Co-Utility – Theory and Applications*. Springer, in press.

³⁶ See N. Lambea-Llop, (2016), A policy approach to the impact of tourist dwellings in condominiums and neighbourhoods in Barcelona, Urban Research & Practice, DOI: 10.1080/17535069.2017.1250522.

³⁷ Cruisers banned in Venice (<http://www.independent.co.uk/travel/news-and-advice/venice-cruise-ship-ban-55-tonnes-marghera-port-where-is-it-italy-a8044026.html>; accessed 13-12-2017) or different measures in big cities such as Barcelona or Madrid to limit the number of private flats rented to tourists (<https://www.theguardian.com/world/2017/jan/27/barcelona-cracks-down-on-tourist-numbers-with-accommodation-law>; accessed 13-12-2017) are only two examples of this.

³⁸ <https://www.theguardian.com/money/2016/jun/15/he-truth-about-working-for-deliveroo-uber-and-the-on-demand-economy> (accessed 13-12-2017).

³⁹ See the full conceptual framework at S. Nasarre-Aznar, "Collaborative housing and blockchain", Administration, in press (2018).

⁴⁰ According to the Cambridge dictionary a "doer" is "someone who gets actively involved in something, rather than just thinking or talking about it". It is promoted as a life style, something really good and desirable. But it usually entails a lot of working (while less thinking) for a low salary and deprivation of the essentials ("you eat a coffee for lunch"; "sleep deprivation is your drug of choice" are slogans from fiverr's campaign in 2017) (see the discussion at <http://www.thedrum.com/opinion/2017/04/12/what-everyone-got-wrong-about-fiverr-s-doer-campaign>; accessed 31-10-2017).

⁴¹ See a whole explanation at S. Nasarre-Aznar, "Collaborative housing and blockchain", Administration, in press (2018).

⁴² https://elpais.com/economia/2017/12/14/actualidad/1513246455_729592.html?platform=hootsuite (accessed 22-12-2017).

⁴³ It should be borne in mind that in 2017 in Spain, only in 3 regions out of 50 renting was cheaper than paying-back the installment of the mortgage of a home-owned property (https://www.elconfidencial.com/vivienda/2017-01-29/si-pagases-lo-mismo-de-alquiler-que-de-hipoteca-comprarias-casa_1315309/; accessed 12-12-2017).

⁴⁴ In the field of chattels Kreiczer-Levy, Shelly, *Share, Own, Access*, pp. 212 and 213, also alerts on the danger of the erosion of ownership if collaborative economy widespreads and its legal acknowledgement significantly increases, which would might imply the concentration of ownership in few hands (eg. companies), while the others might only be able to "access" to those goods.

⁴⁵ <http://www.elperiodico.com/es/barcelona/20170501/se-alquila-habitacion-en-barcelona-a-500-euros-abstenerse-guarros-juerguistas-y-teleadictos-6009462> (accessed 12-12-2017).

⁴⁶ <http://www.refworld.org/pdfid/47a7079a1.pdf> (accessed 12-12-2017).

On the other hand, true housing co-operatives (not those really functioning as regular condominiums), by definition, usually require a rather high initial economic effort (thus questioning if they are suitable for vulnerable households). They might also entail blurring proprietary or contractual rights towards the unit (what exactly entails a “right to use”?) and curtailing the disposition and inheritance rights of co-operativism for the sake of the so-called “cooperativism spirit” as long as the rest of cooperativists have to accept the buyer of the unit one is trying to sell to. By this mere fact, cooperatives can hardly work as universal system of access to housing, as cooperatives can exclude new members, thus hindering their access to housing for financial reasons or for less evident ones⁴⁷.

On the contrary, the blockchain technology (an instrument of the “true” collaborative economy, that may help to achieve a high grade of disintermediation in transactions) has the potential to circumvent traditional barriers to access to housing⁴⁸.

A second lesson that can be extracted from this discussion is that all that glitters is not gold: not everything that is disguised under the term “collaborative” is positive. Once one renounces to homeownership, she renounces to rights (either private, such as the right to sell; or public, such as intimacy or freedom) and to (private) space (a family forced to rent a room and to share the flat with others; or living in a cooperative of use with wide limited private spaces) as well. These (sometimes) high costs may narrow down the profile of people really interested (and not forced because they cannot afford buying) in this type of housing tenures, thus hindering their replicability and widespread and, then, their efficacy of working as true alternatives to homeownership.

3. Questioning the ownership of certain goods

3.1. The holding of digital contents

Perzanowski and Schultz advocate for the end of ownership of personal property in the digital economy⁴⁹. They claim that big consumer hardware companies (such as Apple, Samsung, Amazon Kindle, etc.) embed software in their devices to track how we use them, while the agreements that come with these products allow the buyers to use them as mere licensees, thus prohibiting them from lending, sharing, reselling, modifying and even repairing them. “Buyers” (of the license) cannot even read, listen or watch media contents on unapproved devices. It is not clear whether we, as consumers, fully read and understand the terms & conditions of the license (EULA)⁵⁰, while the contents of full ownership are rather clear since centuries. The legal nature of licenses itself (either creatures of ownership or mere promises) remains unclear and consumers often are not able to distinguish whether they are really buying the media or not (the “buy now” button effect). This means less possibilities to compare offers, imbalance of clear knowledge of what EULA really says and implies and more transaction costs. Holding a license is far more complex than being an owner⁵¹. Privacy is another concern: digital media are acquired through the unique account one should have, so the company (and maybe third parties) know what you buy, when and how you use the media you have acquired, etc. In addition, owners have an incentive to preserve what they own, while in a licensees’ world the preservation of the song, book or film depend on politicians (whether it is or not convenient to have them in the market) or on the creator, distributor, etc. (copyright

⁴⁷ See <http://www.independent.co.uk/news/world/americas/most-celebrated-apartment-block-in-manhattan-accused-of-racism-2202611.html> (accessed 13-12-2017).

⁴⁸ See S. Nasarre-Aznar, “Collaborative housing and blockchain”, Administration, in press (2018).

⁴⁹ A. Perzanowski and J. Schultz, *The End...*

⁵⁰ See <https://www.theguardian.com/technology/2015/jun/15/i-read-all-the-small-print-on-the-internet> (accessed 20-12-2017).

⁵¹ A clear example of this is the new complex Catalan Act 10/2017 regarding, first, how our digital contents (music, the contents of our social network profiles, our files in cloud services such as Dropbox, crypto-currencies that only live in the internet, etc.) should be treated after its holder’s death and, second, what happens if they are held by minors or mentally handicapped; while inheriting or managing (by parents and tutors assets of children and handicapped) ownership of music, photos, files, money, etc. are pretty clear since millennia.

holders) if they want to still make it available or not to the market, to your OS, to your device, etc. Then consumers lose control and companies win power; this power is in hands of a few instead of in the hands of all owners⁵². And ownership, at least in its liberal dimension, means freedom⁵³.

The authors state that “a future that deemphasizes ownership is not only inevitable, it’s already here” and “if we neglect the physical and legal infrastructure of ownership, we may see it disappear”⁵⁴. There are already many evidences on this in relation to music, films and books. It is to be seen if, due to the collaborative economy (see above) this might also happen to housing, car-driving or tourist residences. But we have to bear in mind that there is a risk that what has already happened to digital contents (dramatic reduction of ownership of physical supports, translation of power of decision on the contents to the ones holding the copyright, limitations in disposition, less power to compare different offers and less consumers’ protection) can also happen to housing and transport. To take an example, blockchain is creating a parallel law in internet transactions that may also involve access to housing: rights of use on a property can be “tokenized” and “sold” to interested consumers in need for housing⁵⁵. What if the providers unilaterally decide to stop tokenization, or it becomes more expensive due to demand (like what happens in Über rides), or they decide to change the EULA of the tokens, like what is happening today in iTunes or Google, or the (usually foreign) company offering them winds up or is hacked? One might end up homeless, especially if “traditional channels” of offering housing (e.g. homeownership) become only a few or inexistent (this is a more dramatic situation in a so special and unique asset and market such as the housing one; but this is happening already with physical books, music and video). This would never happen if you are an owner (provided, of course, that you are not overindebted and you pay-back your mortgage, in case it exists). Luddism (taxi drivers, hotels, notaries, real estate conveyancers, etc.), though, is for the moment still strong in these sectors, which is reflected in continuous pieces of legislation limiting the activity of collaborative economy in them.

From this discussion, we reaffirm the lesson we learnt from housing: not-owning the assets we need to use/have always lead to compromises, which limit rights or even might put in risk being able to fulfil our basic needs. The existence of a variety of choices is always useful and therefore the negation or an excessive erosion of ownership is not convenient.

3.2. Animals

Art. 13 TFEU considers animals as “sentient beings”, although it seems that an unrestricted protection of animal welfare or an inviolable inherent value of animals cannot be awarded by this wording⁵⁶. In spite of this, animals –pets in particular- are among the most important values of the millennial generation: they invest more in their pets and care more about them than previous generations, they consider them members of the family⁵⁷ and even a step for their future family⁵⁸ (a sort of personification)⁵⁹, they dislike sports advertisements that do not treat animals properly (e.g.

⁵² A. Perzanowski and J. Shultz, *The End...*, pp. 4, 6-9, 11, 45, 58-60, 65 69, 174.

⁵³ But not only to absolutely exclude the other or to get exclusive use. A. J. MacLeod, *Property and Practical reason*, 2015, Cambridge University Press, pp. 1 to 4 defends that private ownership (in contrast to state one) does not only delivers benefits for owners but also to the community (pp. 87, 91 ff) through the practical reasons (to solve practical problems and to achieve successes in life) it is used for. The exercise of practical reasons requires freedom and domain over things that can only be achieved through legal protection of private ownership, which also must entail limits to the abuse of rights (pp. 146 ff). The norms of property, then, have moral foundations.

⁵⁴ A. Perzanowski and J. Shultz, *The End...*, pp. 169 and 172.

⁵⁵ See more details at S. Nasarre-Aznar, “Collaborative housing and blockchain”, Administration, in press (2018).

⁵⁶ K. Ovie, Harmonized Approaches in Intensive Livestock Production Systems in Europe, in G. Steiner and K. Patel, “International Farm Animal, Wildlife and Food Safety Law”, 2017, Springer, p. 279. The author adds that farm animals are classified as goods according to EU law.

⁵⁷ The organization “People for the Ethical Treatment of Animals” (PETA) thinks that “animals are not ours”. See <https://www.peta.org/features/what-peta-really-stands-for/> (accessed 20-12-2017).

⁵⁸ See <http://www.petproductnews.com/June-2016/Are-Millennials-Generation-Pet/> (accessed 12-12-2017).

⁵⁹ See stories of pets inheriting –e.g. through trusts- (see <https://www.everplans.com/articles/the-10-biggest-inheritances-ever-left-to-pets>; last checked 11-12-2017) or marrying them (see <http://www.dogster.com/lifestyle/this-widow-who-lost->

rodeo rope event)⁶⁰, they do not like corporations' "causewashing" including animals⁶¹, 80% of vegans are under 40 and main reason to become so is ethics for the animals⁶², etc. Millennials are the generation that animals have been waiting for⁶³.

In this vein, it is not surprising that some national legislators try to bring to private law art. 13 TFEU, granting rights to animals and excluding them from being "a thing" as they have been considered in traditional civil law coming from the 19th century (e.g. arts. 522, 528, 583, 1385 French *Code civil* in original version), when they were perceived from a utilitarian perspective as an agricultural force.

Some did it earlier. Thus, although for 90 years animals have been considered ordinary things in Germany, Section 90a BGB was introduced in 1990⁶⁴ stating precisely that "animals are not things". The same did the Catalan Civil code (CCC) in 2006 (art. 511-1.3)⁶⁵, configuring animals as a *tertium genus* between persons and things, although they are still objects (not subjects) of law and the régime of their offspring is the same as the fruits of things (art. 511-1.3 CCC).

Some have done it later. France⁶⁶ changed its *Code civil* in 2014 to consider in its art. 515-14 that "animals are living beings endowed with sensitivity. Subject to the laws that protect them, animals are subject to the regime of things"⁶⁷; but art. 522 *Code* for cattle remains unchanged. The Portuguese Act 8/2017, 3rd March also acknowledges that animals are living beings endowed with sensitivity (art. 201 B Portuguese Civil Code –PCC- 1966) and extracts from it specific limitations to their owners (as they can be owned only with certain specialties according to the new version of art. 1302 PCC):

- a) special statute in case of acquiring ownership of abandoned animal. E.g. the one who finds it can keep it –any animal, not only pets- in case that she has grounded reasons to believe that the real owner infringes bad treatments to it (art. 1323 PCC);
- b) special statutes for damages. Patrimonial compensation can be more than the actual value of the animal -art. 493-A.2 PCC- and its owner may be compensated for his –but not the animal's- moral damages for its death or serious injuries (art. 493-A.3 PCC);
- c) limitations in the "use" of the animal by its owner and assure its wellness and proper treatment according to the species among others, while their *abusus* is expressly prohibited (art. 1305-A PCC; animals are then protected directly by law and protected from the behavior of their owners);
- d) and, in case of divorce, "pet animals shall be entrusted to one or both spouses, considering inter alia the interests of each of the spouses and the couple's children and also the welfare of the animal" (art. 1793-A PCC); that is, animal's self-interest is taken

[her-cat-husband-plans-to-marry-her-dog](#); last checked 11-12-2017). Finally, in the following paragraphs the new laws on pets in Portugal and Spain are commented and there is a mention to Germany. According to Eurostat (data for 2017, http://ec.europa.eu/eurostat/statistics-explained/index.php/Fertility_statistics, accessed 12-12-2017) these three countries are among the 8th within the EU that recorded a higher than average mean age of women at the birth of their first child and a lower total fertility rate. See also the 2017 movie "The Boss Baby" (<https://itunes.apple.com/us/movie/the-boss-baby/id1216954198>), where behind the main plot, there is a fight between future babies against the increasing disinterest of adults in having babies and their increasing interest in having pets instead.

⁶⁰ J. Hill et al., Reaching Millennials: Implications for Advertisers of Competitive Sporting Events that Use Animals, *Journal of applied communications*, Vol. 100, issue 2, 2017, p. 83.

⁶¹ <https://www.forbes.com/sites/micahsolomon/2015/02/25/the-6-values-held-by-millennial-customers-how-well-does-your-company-stack-up/#26e48e475328> (accessed 12-12-2017).

⁶² <https://vomadlife.com/blogs/news/why-most-people-go-vegan-2016-survey-results-reveal-all> (accessed 20-12-2017).

⁶³ <https://www.clearlylovedpets.com/blog/millennials-and-their-pets/> (accessed 12-12-2017).

⁶⁴ Art. 20a was introduced in 2002 in *Grundgesetz* that expressly foresees the protection of animals.

⁶⁵ "Animals, which are not considered things, are under the special protection of the laws. Only the rules of the goods are applied in what their nature allow" (free translation from Catalan language).

⁶⁶ See also arts 641-A of the Swiss Civil Code and art. 80 of the Swiss Constitution. See also art. 285-A of the Austrian Civil Code (1986).

⁶⁷ Free translation from French.

into account. In addition, companion animals that each spouse has at the time of marriage are excluded from the regime of general communion (art. 1733.1 h) PCC).

Notwithstanding this, animals in Portugal are still objects of law (arts. 201-D, 1302.2, 1318, 1323.1, etc. PCC; they “belong” –or may belong- to humans, so between them there is an ownership relationship and not a guardianship relationship) and not subjects of it (could they if they do not have obligations in exchange? can/should they really be equaled to babies, that also have rights but not obligations, although they will never become human adults with obligations?). At least they are considered as a *tertium genus* to whom humans owe duties.

In its turn, the Spanish Parliament is discussing in December 2017 an even deeper reform of the legal status of animals in the Civil code⁶⁸. Today, the Spanish Civil Code (CC) considers animals as regular goods (chattels; arts. 355 as they deliver “fruits”; art. 465, they can be possessed; art. 610: they can have an owner or be wild and then can be object of original appropriation; animals cannot be liable for torts by themselves but their possessor can –art. 1905 CC) with some specialties (art. 357: they deliver fruit since the cattle is pregnant and not since birth; art. 499: special rule of a usufruct of a flock; 1496: special rule to find hidden defects of sold animals). Thus, the Spanish Project includes some issues already seen in the Portuguese Act and add some new ones:

a) in case of divorce, the custody of the pets (no all animals) will be awarded depending on the interests of family members but also, like in Portugal, taking into account the interest of the pet. In addition, a sort of “shared custody” of the pet, right of visits of the non-custodian to it and claiming preliminary measures in expectance of a future divorce (these measures are like the ones applicable for children) are also possible, regardless who is the actual owner of the pet (Project of new art. 90 c), 94bis and 103.2 CC).

b) As animals are acknowledged as “living beings endowed with sensitivity” (Project of new art. 333.1 CC; they are object of law but a *tertium genus*, Project of new arts. 333 bis or 610.2 CC), the right of the animal’s owner to use them or to dispose of them is heavily limited, as she has to respect their wellbeing and neither can abuse, abandon or kill them (Project of new art. 333 CC, which also includes a similar torts regime as the Portuguese Civil Code).

c) Who finds an animal –any- can keep it in case he finds out that its owner abuses it or has abandoned it (Project of art. 611.4 CC, like art. 1323.7 Portuguese Civil Code).

d) Animals cannot be mortgaged together with the agricultural or leisure land or farm to which they are attached. In addition, the parties cannot extend the mortgage to pets (Project of art. 111 Mortgage Law).

e) Pets cannot be embargoed (e.g. for debts of their owners), but the revenues they eventually produce can (Project of art. 605 Civil Procedural Law).

All in all, while it seems that first changes in Civil codes only limited what the owner of animals can do with them compared to what they can do with other things, reforms in Portugal and Spain clearly create a *tertium genus*, that is, a different type of good that can be owned, but owner’s faculties are limited due to its nature (living beings endowed with sensitivity), taking care specially of their physical (cannot be abandoned or abused) and moral (their interest must be taken in case of divorce of the owners and cannot be seized or mortgaged, so separated from their owners due to their debts) integrity. All in all, many owners of animals have found themselves with their faculties limited as they now, by force of law, own “sentient beings” instead of regular things⁶⁹. This fact adds

⁶⁸ BOCG. Congreso de los Diputados, serie B, no. 167-1, 13-10-2017.

⁶⁹ This might also lead to deny that they can be mere objects of rights but subjects. According to Adams, Wendy A., *Human Subjects and Animal Objects: Animals as 'Other' in Law* (June 29, 2010). *Journal of Animal Law and Ethics*, Vol. 3, pp. 29-51, May 2009, pp. 34 and 35, “the law characterizes animals as the quintessential —other by classifying them as objects of property relations between legal subjects, rather than legal subjects in their own right. Regulation of the manner in which legal subjects exercise their property rights in relation to animals denies that animals, as sentient creatures, have welfare concerns and are capable of expressing autonomy. The corporal use of animals is not justified on the basis that animals are property, but rather, animals are legally classified as property because their instrumental use to achieve human ends is acceptable. At issue is the validity of this classification”.

another limit (next to housing and digital media) to express peoples' personhood⁷⁰ through owning things and places.

Regardless whether it is convenient, feasible or acceptable through legal reasoning, a further step could be to acknowledge them as subject of rights⁷¹. Even it has been recently proposed⁷² that they can hold property rights (either held on trust for them by humans or attending to their customary rules in the wild) over land and chattel, to go beyond classical welfarists (they belong to humans but with anti-cruelty laws) and rights (extend some human rights to animals) theories. If animals are not granted those rights soon, our silicon-made friends might take the lead.

3.3. Robots

The EU Parliament Resolution 16-2-2017⁷³ stated that “the current trend leans towards developing smart and autonomous machines, with the capacity to be trained and make decisions independently” and that “ultimately there is a possibility that in the long-term, AI could surpass human intellectual capacity”.

In fact, robots will not only assist humans to take their decisions –including judges to take legal ones- but they will take their own decisions based in algorithms⁷⁴. In July 2017, Facebook shut down a pair of its artificial intelligence robots after they invented their own language while bargaining about the trade of balls⁷⁵. In the same month, students achieved a milestone to develop a self-replicating robot through a 3D printer (it is, in fact, a 3D-printed 3D printer)⁷⁶. In August 2017, worldwide experts in AI urged the United Nations to regulate autonomous weapons as they “will permit armed conflict to be fought at a scale greater than ever, and at timescales faster than humans can comprehend”⁷⁷. In November 2017 the first robot, Sophia, got its nationality from Saudi Arabia⁷⁸. In December 2017, one AI created another AI⁷⁹.

During this paper, we have assumed that we are the masters of things, that we (as human beings) “own” them and that this might be in our DNA. Then, in 2007, we learnt that owning a property might not be as good (we can become overindebted), that there might be other options for allowing access to things (licenses, sharing) or to grant access to housing (collaborative housing), and that we can own goods that are neither things nor rights, but animals, although with limitations, despite we have owned them as things since the beginning of times.

But now, as humans, we are conscious that we might not be the single subjects of rights (and obligations) –leaving apart legal persons, which basically embody a group of people, of things, of interests, etc.- and that AI might be as well. Philosophical anthropology deals with what really a

⁷⁰ For the importance of property to encourage personhood and self-development, see Margaret J. Radin, *Property and Personhood*, 34 STAN. L. REV. 957 (1982). Also see the recent case of an emotional-support peacock that was denied flight by American Airlines (<https://www.nbcnews.com/storyline/airplane-mode/emotional-support-peacock-denied-flight-united-airlines-n842971>; visited 3-2-2018).

⁷¹ See H. Correia Mendonça, *Recognising sentience in the Portuguese Civil Code*, “dA Derecho Animal”, June 2017, derechoanimal.info.

⁷² Bradshaw, Karen, *The New Animal Rights* (July 1, 2016). Available at SSRN: <https://ssrn.com/abstract=2837372> or <http://dx.doi.org/10.2139/ssrn.2837372>, pp. 3 to 5.

⁷³ Available at <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+TA+P8-TA-2017-0051+0+DOC+PDF+V0//EN> (accessed 13-12-2017).

⁷⁴ “Further development and increased use of automated and algorithmic decision- making undoubtedly has an impact on the choices that a private person (such as a business or an internet user) and an administrative, judicial or other public authority take in rendering their final decision of a consumer, business or authoritative nature; whereas safeguards and the possibility of human control and verification need to be built into the process of automated and algorithmic decision-making” (EU Parliament Resolution 16-2-2017).^[1]

⁷⁵ <http://www.telegraph.co.uk/technology/2017/08/01/facebook-shuts-robots-invent-language/> (accessed 13-12-2017).

⁷⁶ <https://www.manufacturingtomorrow.com/news/2017/07/19/nds-students-develop-3d-printing-self-replicating-robot/10034/> (accessed 13-12-2017).

⁷⁷ <https://futureoflife.org/autonomous-weapons-open-letter-2017/> (accessed 13-12-2017).

⁷⁸ <http://www.arabnews.com/node/1183166/saudi-arabia> (accessed 13-12-2017). Sophia rises an unlimited number of legal issues such as: does she has the right to have a son/daughter, that is, to replicate or self-replicate?

⁷⁹ <https://futurism.com/google-artificial-intelligence-built-ai/> (accessed 13-12-2017).

human being is and what distinguishes us from animals or machines. But in the meantime, IT researchers are developing how to merge AI with a human being in the near future⁸⁰ and the Turing test⁸¹ tries to answer whether a machine can make a person believe that it actually answers to his questions like a person would do. And if the machine becomes indistinguishable from a human being in its answers, it can somehow be affirmed that acts as a thinker being, i.e. it thinks.

The EU Parliament Resolution 16-2-2017 quotes the three Asimov's rules on robotics. The second one states that "A robot must obey the orders given by human beings except where such orders would conflict with the First Law" (which is that a robot will not harm a human being). Which basically means that we depart from the idea that we own robots and they will always do what we say they have to do. But as revealed in previous examples, it seems that things will not necessarily happen in this way. The Resolution itself says that "today's robots able to perform activities which used to be typically and exclusively human, but the development of certain autonomous and cognitive features – e.g. the ability to learn from experience and take quasi-independent decisions – has made them more and more similar to agents that interact with their environment and are able to alter it significantly".

Then the EU Parliament does not have the clue to answer who or what will be liable in case an autonomous⁸² robot causes personal or patrimonial injuries⁸³: its "owner", the owner/programmer of the algorithm that the robot used to take the autonomous decision or the robot itself? What the EU Parliament is considering is that "the more autonomous robots are, the less they can be considered to be simple tools in the hands of other actors (such as the manufacturer, the operator, the owner, the user, etc.)". That is, going beyond torts liability situation, whether these autonomous robots can even be considered subject of rights like Sophia (as she is now a Saudi Arabian citizen⁸⁴) instead of an object.

We are now using machines as things (e.g. arts. 334.5 and 1908 CC) and we can use, take fruits and abuse them. If my toaster does not work, I hit it and sometimes it comes to toast the bread. If I have a machine and I rent it, I take for me the yields (fruits) it generates. But will Sophia agree that if she replicates herself (such as the aforementioned 3D printer) I will take her "daughter" as a fruit for me as we do now with animals (e.g. art. 335 CC)? And will Sophia or a third party or the police accept that I can hit "my" Sophia if it does not work properly? What if we both want to marry⁸⁵? In addition, will Sophia be capable of "owning" things itself⁸⁶? Or, putting it upside down, if it and the ones like it one day can vote as regular citizens and they reach a majority, couldn't they vote that we become "their" things and they could own us?

Although this sounds like a science-fiction approach, this has already happened in history of mankind. Weren't slaves in Rome considered in many aspects as things (e.g. as *res mancipi*, slaves could not be owners, heirs, creditors or debtors and damages caused to them were considered like

⁸⁰ <https://singularityhub.com/2016/12/05/the-brain-tech-to-merge-humans-and-ai-is-already-being-developed/#sm.0001onzbl1byhdm8s811xgtudmuy4> (accessed 13-12-2017).

⁸¹ A. M. Turing (1950) Computing Machinery and Intelligence. *Mind* 49: 433-460.

⁸² "A robot's autonomy can be defined as the ability to take decisions and implement them in the outside world, independently of external control or influence" (accessed 13-12-2017).

⁸³ In fact, this has already happened with a Tesla's autonomous car in 2016 (<https://www.theguardian.com/technology/2016/jun/30/tesla-autopilot-death-self-driving-car-elon-musk>) (accessed 13-12-2017).

⁸⁴ See a discussion at <https://theconversation.com/an-ai-professor-explains-three-concerns-about-granting-citizenship-to-robot-sophia-86479> (discussed 13-12-2017).

⁸⁵ The EU Parliament Resolution warns about the "emotional connection between humans and robots – particularly in vulnerable groups (children, the elderly and people with disabilities) – and highlights the issues raised by the serious emotional or physical impact that this emotional attachment could have on humans".

⁸⁶ If it seems to be decided that working intelligent robots will have to pay taxes or even, as the EU Parliament suggests, we will have to define a new order of civil liability for them or even consider them liable if injury comes from a self-made decision, why could she not own something by inheriting, entering into a contract if she wants to, like the two Facebook machines that were bargaining to reach a deal in a contract to sell balls and were communicating in their own language?

damages to a thing after the *Lex Aquilia de damno*), that could be used, disposed and abused by their owners (they could be sold and bought, donated, punished or even killed by them)⁸⁷? The etymology of the word “robot” means precisely “forced worker”⁸⁸. Progressive “humanitarian” rules softened slaves’ status during the Roman Empire⁸⁹, although slavery did not disappear from Western Europe until the 19th century. Therefore, would a range of statutes be enough to convert, let us say, Turing test-successful robots into quasi-human-like beings (humanoids?) with their own set of rights and obligations, firstly maybe as slaves-like⁹⁰ and thereafter as free beings? For example, autonomous robots could be awarded a *peculium* (like the one of old Roman slaves) to conduct valid businesses with third parties on behalf of their owners or pay injuries they commit in torts. However, at first glance, this last aspect does not seem to be compatible with para. 52 EU Parliament Resolution (about unlimited liability for damages caused by robots) because it says that a human (e.g. the trainer of the robot (para. 56) or the one that can “minimize risks and deal with negative impacts” (para. 55)) should be the one liable. But the Resolution also says that this ultimately “human liability” might only be at the present stage, leaving the door open for the liability of robots themselves (para. 56 *in fine*).

In fact, the EU Resolution is acknowledging in para. 59 f)⁹¹ that in the long run autonomous robots should be granted a specific legal status (it recommends their personification!), not only for making them liable for torts but also for granting them the possibility to engage in transactions with third parties, that is, subjects of rights and obligations (“applying electronic personality to cases where robots make autonomous decisions or otherwise interact with third parties independently”).

But then, would we be allowed to own them at all?

4. Conclusions

Ownership, both of land and goods, is again at the stake. Technological advances and/or new values of millennials in a context of crisis have led to questioning the suitability of ownership to favor universal access to housing, of holding music and other digital contents, have limited the faculties of animals’ and pets’ owners and are favoring the evolution of autonomous robots into subjects of law rather than mere objects.

But not all is good or bad. There are no simple solutions to complex matters and ownership is hard to be substituted. Everything has a price and running away from homeownership might imply entering into a more onerous and instable type of housing tenure (such as leases in peripheral EU countries) or being cheated by the trendy term “collaborative” and finding yourself with less rights (of disposition, of intimacy or freedom) or space (room rental) in your “home” (a room?) that might not even reach the standards required by the UN. A sort of solution is keeping the best part of ownership (basically, the stability and certainty/strength of rights) and making it more sustainable (avoidance of over-indebtedness) for all-income households; a sort of “democratic homeownership”. Intermediate tenures such as shared and temporal ownerships have been suggested for this task. In addition, not being able to own your digital media contents despite having paid for it entails similar consequences: less and unclear rights for consumers and more power to copyright holders. Concentration of ownership (i.e. of freedom, of power) is never good.

⁸⁷ Although with limits and exceptions. E.g. slaves could have debts and obligations according to natural law and could conduct businesses for their masters thanks to the *peculium*.

⁸⁸ According to the Online Etymology Dictionary, from Czech *robotnik* “forced worker” (<https://www.etymonline.com/word/robot>, accessed 13-12-2017).

⁸⁹ E.g. masters lose their ownership towards them if they were abandoned because their age or health.

⁹⁰ The EU Parliament Resolution expressly states that “[it] considers it essential, in the development of robotics and AI, to guarantee that humans have control over intelligent machines at all time”.

⁹¹ “Creating a specific legal status for robots in the long run, so that at least the most sophisticated autonomous robots could be established as having the status of electronic persons responsible for making good any damage they may cause, and possibly applying electronic personality to cases where robots make autonomous decisions or otherwise interact with third parties independently”.

In its turn, in recent years, many owners of animals (in Germany, France, Switzerland and Austria, but more intensively in Portugal and soon in Spain) have found themselves with their faculties limited as they now own “sentient beings” instead of regular things. These limitations have been implemented essentially to protect animals’ (especially pets) physical (cannot be abandoned or abused) and moral (their interest must be taken into account in case of divorce of the owners and cannot be seized or mortgaged, so separated from their owners due to their debts) integrity. In this case it seems that the erosion of ownership is proportional to the goals that want to be achieved and due to the change of role that animals are developing in our current society. The discussion is now whether they should be protected further, acknowledging them the status of subject of rights (and, then, also obligations?).

This is the path that seems to have been taken in relation to autonomous robots that are capable of taking their own decisions (sort of “thinking” capability) according to a EU Parliament Resolution of 2017. In this case, is it justified that we “own” them as if they were simple toasters or will they someday be the ones that own (us)?

All in all, it seems that ownership retains the attractiveness for our species and is tough to substitute and only in exchange of a high price (housing and digital media cases), while it reveals to be quite malleable to be adapted to new millennial values (animals case). It is even a longstanding institution which is desired by our clever silicon-made friends.

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