Cambridge Law Review (2019) Vol IV, Issue ii, 68–82

Old Is Sometimes Better: The Case for Using Existing Law to Face the Challenges of the Digital Age

Riccardo de Caria*

I. From "zero to one"? the "complicated relationship" between law and technology

Traditionally, all revolutions in history sooner or later had to come to terms with lawyers, and with the law in general:[1] the English and American revolutions were based on law and the rule of law, the French revolution run over existing law and rebuilt a new one, but certainly did not dispense with the lawyers, and even the Bolshevik revolution or Maoism established a new law alternative to the previous respective paradigms, but still felt the need to extensively use the law to pursue their goals. As for the revolutions understood not in the political sense, but in the technical-scientific one, at least in modern times, they have not led to

* Assistant Professor, University of Turin, Italy. Ph.D. (Turin), LL.M. (LSE).

[1] The link between law and revolutions has been the subject of several studies: a classic reference is to HJ Berman, *Law and Revolution: The Formation of the Western Legal Tradition* (CUP 1983); see also, among many: E Surrency, "The Lawyer and the Revolution" (1964) 8(2) The American Journal of Legal History 125; Hendrik Hartog (ed), *The Law in the American Revolution and the Revolution in the Law: A Collection of Review Essays on American Legal History* (New York University 1981); Michael P Fitzsimmons, *The Parisian Order of Barristers and the French Revolution* (Harvard University Press 1987); David A Bell, *Lawyers and Citizens: The Making of a Political Elite in Old Regime France* (OUP 1994); E Kolla, *Sovereignty, International Law, and the French Revolution* (CUP 2017); A Di Gregorio, "A 'new' State and a 'new' legal order: the Bolshevik Revolution and its legal legacy one hundred years after the 'October'" (2017) Diritto pubblico comparato ed europeo 993; M Loughlin, *Political Jurisprudence* (CUP 2017) ch 4, 'Burke on Law, Revolution, and Constitution', 63ff; Peter Charles Hoffer, Williamjames Hull Hoffer, *The Clamor of Lawyers. The American Revolution and Crisis in the Legal Profession* (Cornell University Press 2018).

the overcoming of the law, if anything to its transformation and adaptation: the industrial revolution certainly provoked considerable turmoil in the world of law, but the fundamental structure remained unaltered, and the lawyers maintained their prestige intact even in the very changed circumstances, effect of the scientific-technological upheavals. Therefore, no previous revolution actually engaged in "killing all the lawyers", not even metaphorically.[2]

Instead, the current digital revolution would seem to put the law and the role of lawyers in serious crisis for the first time: as is well known, we would be faced with a scenario in which law and code are assimilated and confused,[3] for which a complete rethinking and updating of the law would be necessary to keep up with the emerging disruptive technologies. In this context, even the role of lawyers would have to be completely thought over: tight between legal tech, artificial intelligence, machine learning, smart contracts, and their replacement with machines,[4] they would have no other choice but to reinvent themselves as computer scientists, relinquishing command of their discipline to the relentless advance of increasingly intelligent and powerful computers.

In other words, the typical feature of innovation in the digital world and in the field of new technologies, captured in the spot-on title of a wonderful book by Peter Thiel, *Zero to One*,[5] would have transferred to the law. That is to say that, contrary to what happened with previous revolutions, in this case even law should be, or perhaps already is subject to a break in continuity, or a complete break with

[2] As goes the famous line by the fictional character Dick the Butcher in William Shakespeare's Henri VI (Part 2): during a discussion among rebels led by Jack Cade on what they should do once they take the throne, the following conversation takes place: "*Cade*. Be brave, then; for your captain is brave, and vows reformation. There shall be in England seven halfpenny loaves sold for a penny: the three-hooped pot shall have ten hoops; and I will make it felony to drink small beer: all the realm shall be in common, and in Cheapside shall my palfrey go to grass. And, when I am king, – as king I will be, – *All*. God save your majesty! *Cade*. I thank you, good people: – there shall be no money; all shall eat and drink on my score; and I will apparel them all in one livery, that they may agree like brothers, and worship me their lord. *Dick*. The first thing we do, let's kill all the lawyers. *Cade* Nay, That I mean to do. […] *Cade* I thank you, good people: you shall eat and drink of my score, and go all in my livery; and we'll have no writing but the score and the tally, and there shall be no laws but such as come from my mouth".

[3] The reference is to Lawrence Lessig, *Code and Other Laws of Cyberspace* (Basic Books 1999); the dichotomy between law and code was picked up by many authors, including Primavera De Filippi and Aaaron Wright in *Blockchain and the Law: The Rule of Code* (Harvard University Press 2018).

[4] See for instance N Sahota, "Will A.I. Put Lawyers Out of Business?" *Forbes* (New Jersey 9 February 2019) <https://www.forbes.com/sites/cognitiveworld/2019/02/09/will-a-i-put-lawyers-out-of-business> (accessed 25 October 2019).

[5] Peter Thiel with Blake Masters, *Zero to One: Notes on Startups, or How to Build the Future* (Crown Business 2014).

the past, which would lead to a completely new paradigm, where progressively all the law is reduced to binary logic.[6]

In this paper, I would like to question this approach: I do not want at all to support a position of resistance to the new technologies, or yearn for a slowdown in the digital revolution, and in particular for the law to hinder the increasingly rapid innovation. This is in fact the position taken by some,[7] but, quite to the opposite, I believe instead that innovation, however rapid, should not be hindered, but rather favoured as much as possible in terms of public policy choices. Rather, I intend to focus on the question of whether the emerging technologies, which are making the scientific and economic world make a leap indeed from "zero to one", also actually require a law that is reborn from scratch, and the reinvention of its foundations, in order to keep up with innovation.

It has been argued that the law must be endowed with new categories in order to accommodate the novelties that the technological evolution is producing at an unceasing and increasingly accelerated rate.[8] I submit, however, that the law we have is perfectly equipped to regulate an economic and technological framework that is clearly evolving very rapidly: it is arguably not necessary to resort to new categories to keep up with this evolution, or, in any case, it would always be preferable to check with great caution whether the new legal problems that have arisen with the new technologies cannot be resolved in a completely adequate way with the legal categories of the analogue world. Only if this careful analysis is unsuccessful will the search for new categories be warranted, but this is by no means a foregone conclusion, it has to be proven, and the burden of proof lies with those who advocate the need to reinvent the law.

In the following paragraphs, I will therefore argue that the one between law and technology can be a happy marriage, and not necessarily a divorce, where each party go their own way. To this end, however, in order for this "complicated relationship[9]" to work, as in any self-respecting marriage, some essential ingredients will be needed, which I will go on to analyse in the next paragraphs: something old (Section II), something new (Section III), something borrowed (Section IV), something blue (Section V). The final paragraph (Section VI) offers

6 See the reflections by A Lo Giudice, "The Concept of Law in Postnational Perspective", in LH Urscheler and SP Donlan (eds), *Concepts of Law. Comparative, Jurisprudential, and Social Science Perspectives* (Routledge 2016) 209.

7 See for instance Fritjof Capra and Ugo Mattei, *The Ecology of Law: Toward a Legal System in Tune with Nature and Community* (Berrett-Koehler 2015).

8 At least to a certain extent, it is the position taken for example by E Biber and others, "Regulating Business Innovation as Policy Disruption: From the Model T to Airbnb" (2017) 70(5) Vanderbilt Law Review 1561.

9 As in one of the possible options to select for "relationship status" on a previous Facebook version ("it's complicated").

my conclusive remarks. In my work, I will make ample reference to the works of Bruno Leoni, an Italian philosopher of law who put forward some extremely acute and profound reflections which, although written a few decades ago, are very useful to respond to the legal challenges posed by the emergence on the scene of the new technologies.

II. Something old

As anticipated in the introductory paragraph, arguably the current rise of the digital technologies is only to a certain extent "the start of something new".[10] Let me make a few examples.

The sharing economy undoubtedly raises questions the legal notions of ownership and property:[11] how adequate is the traditional property law to cope with the changing relationships between people and things? We no longer own many of the goods we use, but we rent or lease them, or have them in other forms of temporary detention (think of cars, computers, smartphones),[12] or however goods of increasing economic importance see us as simply licensees, not owners (think of software, cloud storage space and what this entails for our files, etc.).[13]

As a consequence, to use the traditional metaphor of the 'bundle of sticks',[14] less and less sticks are left to the 'owner', and more and more remain in the hands of corporate powers and multinational conglomerates, who retain control over the goods they sell or lease or license.

To be sure, this is not in fact a completely new phenomenon, or in any case a phenomenon of the "zero to one" type: the issue of limited in time rights over things has been addressed by important authors for quite some time,[15] and even before the digital revolution showed all the disruptive potential that it has shown more recently. Therefore, the shift from property to other forms of relationship,

[10] This is just another reference to popular culture.

[11] See for instance S Kreiczer-Levy, "Consumption Property in the Sharing Economy" (2016) 43 Pepp L Rev 61.

[12] See C Cain Miller, "Is Owning Overrated? The Rental Economy Rises" *The New York Times* (New York, 31 August 2014), p SR3 of the New York edition.

[13] According to Kroll's *Global Fraud & Risk Report. Forging New Paths in Times of Uncertainty* (10th annual edn 2017/18), p 10, in 2017: "For the first time in 10 years of reporting, information theft, loss, or attack was the most prevalent type of fraud experienced in the last year, cited by 29% of respondents, up 5 percentage points from 24% of respondents in the 2016 survey. This in turn was up 7 percentage points from 22% of respondents in the 2015 survey. Theft of physical assets or stock, long the most common type of fraud, was the second most frequently cited incident, suffered by 27% of respondents".

[14] On which see, for instance, DR Johnson, "Reflections on the Bundle of Rights" (2007) 32 Vt L Rev 247.

[15] *E.g.* R Caterina, *I diritti sulle cose limitati nel tempo* (Giuffrè 2000).

typically contractual and temporary, with things, appears if anything relevant in terms of comparative increase in space for the latter type of relationship compared to traditional property, but not something radically, intrinsically new.

Even considering one of the innovative technologies on which the attention of public opinion and specialists has increasingly been focusing, namely the distributed ledger technologies (DLTs) famously at the basis of the blockchain, Bitcoin and smart contracts, the conclusion is arguably the same. Various legal systems, in particular those apparently more attentive to the evolution of new technologies and more eager to direct this evolution towards desirable goals and within a precise legal framework, have introduced normative definitions of these new phenomena,[16] thus sanctioning, more or less consciously, the idea that they represent something irreducible to the old legal categories, that warrants the creation of new ones.

In truth, this does not appear to be the preferable approach:[17] the DLTs, the blockchain, the smart contracts can in fact be classified in the existing categories,[18] without the need to introduce new institutions whose relationship with the existing ones will inevitably be problematic and will take some time to be arranged in a satisfactory way, if it can actually be arranged at all. Smart contracts are in fact pieces of software, whose legal implications it is a very stimulating endeavour to investigate;[19] but also the blockchain and Bitcoin can arguably be traced back to

[16] A comprehensive and updated account is for instance the one provided by Chetcuti Cauchi Advocates' *Blockchain, Crypto & ICOs. A Legal Review of Leading Jurisdictions* <https://blockchain.chetcuticauchi.com/report/> (accessed 25 October 2019). For some reflections on the regulatory responses to the DLTs revolution, see R Herian, "Regulating Disruption: Blockchain, GDPR, and Questions of Data Sovereignty" (2018) 22(2) Journal of Internet Law 1, 1, 8–16.

[17] For the opposite view, see for instance K Werbach, "Trust, but Verify: Why the Blockchain Needs the Law" (2018) 33 Berkeley Tech LJ 487, and OY Marian, "Blockchain Havens and the Need for Their Internationally-Coordinated Regulation" (2019) 20 North Carolina Journal of Law and Technology. Quite surprisingly, Eu institutions found no need to rush to regulate the crypto market: see Bloomberg, "Europe Is in No Rush to Regulate Crypto Market, Officials Say" *Fortune* (New York, 8 September 2018) <http://fortune.com/2018/09/08/europe-cryptocurrency-regulation/> (accessed 25 October 2019).

[18] See R de Caria, "The Legal Meaning of Smart Contracts" (2018) 26(6) European Review of Private Law 731.

[19] See R de Caria, "The Definition(s) of Smart Contracts Between Law and Code" in M Cannarsa, LA Di Matteo and C Poncibò (eds), *The Cambridge Handbook of Smart Contracts, Blockchain Technology and Digital Platforms* (CUP 2019) 19.

existing legal institutions, which may vary according to different legal systems,[20] but which in any case exist everywhere.

But the same holds true for all the main areas in which we see the proliferation of technological innovation and the consequent rapid increase in legal questions that this entails: e-commerce does not change the key assumptions of contract law, 3D printing is part of a well-established framework of intellectual property law, the same artificial intelligence, robotics and the Internet of Things produce new scenarios and generate new problems, including legal ones, but they can be addressed satisfactorily with the statutory instruments of contractual and non-contractual liability.

Ultimately, it is arguably necessary to recover the notion of "evolutionary law" [21] adopted by a not yet enough appreciated academic tradition, among scholars of both of law and economics, ranging from Carl Menger to Murray Rothbard and especially Bruno Leoni.[22] In particular, the latter, highlighting the merits of the customary production of law in both the Roman and the common law traditions, formulated the original and fascinating theory of "law as individual claim",[23] according to which law in its proper and noblest meaning is something that arises spontaneously from the free repetition of certain behaviours by many people over time.

In other words, what makes a prerogative, an individual claim, rise to the status of recognised right (and therefore of law) is the spontaneous recognition of the same by the affiliates of a given community: following this approach, we must conclude that the rules governing the digital age should also be derived from the customary principles stratified over the centuries, that could be profitably employed also in the digital environment.

Indeed, it is by definition to be ruled out the contention that the law should follow and adapt rapidly to new scientific and market developments. It is therefore an effort that should not be undertaken, because the law in the strictest, noblest

[20] About Italy see *e.g.* P Burlone and R de Caria, 'Bitcoin e le altre criptomonete. Inquadramento giuridico e fiscale' (*Istituto Bruno Leoni*, 1 April 2014, IBL Focus 234) <http://www.brunoleonimedia.it/public/Focus/IBL_Focus_234-De_Caria_Burlone.pdf> (accessed 25 October 2019).

[21] On which see A Gianturco Gulisano, 'Bruno Leoni tra positivismo e giusnaturalismo. Il diritto evolutivo' (2009) Foedus 87.

[22] For a discussion of the influence of the Austrian school of economics on legal theory, see M Litschka and K Grechenig, 'Law by human intent or evolution? Some remarks on the Austrian school of economics' role in the development of law and economics' (2010) 29(1) European Journal of Law and Economics 57.

[23] It is the title of a chapter of his masterpiece, *Freedom and the Law* (see the expanded 3rd edn, with a foreword by Arthur Kemp (first published 1961, Liberty Fund 1991). The following references are taken from this online edn, available at <https://oll.libertyfund.org/titles/920> accessed 25 October 2019).

and most genuine sense is something that is stratified and consolidated over time: it is consequential that, if the time elapsed is short or very short, by definition law cannot have been created, because there has not been enough time for individual claims to establish.

To this it is worth adding that it appears a lost battle for lawyers the one chasing the latest new technological developments: either the law arrives late, thus risking to appear blunt, or, on the contrary, its fervour in trying to keep pace with innovation, never letting it happen without previously regulating it, ends up stifling that same innovation.[24]

III. Something new

However, it would be extremely hasty to conclude, from the premises set out in the previous paragraph, that there is and cannot be anything new in the law with regard to the new disruptive technologies. While it is true that the law should not chase innovation, it is certainly also true that something new actually exists, on various fronts.

This appears undeniable: wealth is increasingly represented by intangible goods: not only have we witnessed the shift of wealth from real estate to movable property, but the movable goods that become increasingly valuable are generally of an immaterial nature[25]. Hence the need to protect the new digital wealth, starting from the personal data, and to reflect on their concentration (big data) and the modalities of their treatment and circulation.

From this point of view, one of the main topics of discussion in the world of law is the privacy of such data: from the way in which it is often addressed, it would seem to be an essentially new and unprecedented problem, but as is well known, the right to privacy was conceptualised as far back as in 1890,[26] only 12 years after Edison invented his light bulb, just to make an example. And this right fundamentally remains the same, in its essential tenets, even though the

[24] The problems arising for regulation when facing fast-developing new technologies was dealt with for instance by M Fenwick, WA Kaal, EPM Vermeulen, "Regulation Tomorrow: What Happens When Technology Is Faster than the Law" (2017) 6 American University Business Law Review 561, although with policy conclusions different than my own.

[25] See, already several years ago, Margaret M Blair and Steven MH Wallman (eds), *Unseen Wealth: Report of the Brookings Task Force on Intangibles* (Brookings Institution Press 2001).

[26] SD Warren and LD Brandeis, "The Right to Privacy" (1890) 4(5) *Harvard Law Review* 193.

technological scenario has evolved in a tremendous way from the age of the Edison light bulb.

Arguably, therefore, the regulatory rush, that has put Europe at the vanguard in reining in this field, does not appear to be fully justified:[27] if the single piece of data is potentially subject to appropriation in the proper sense, then the traditional rules on (immaterial) property exist and can be applied; otherwise, it will be without protection, similarly to materials that do not have access to copyright protection.

To be sure, what makes the data special is that it is essentially much more useful to those who have to acquire it than to those who own it: the data is not only or so relevant in itself, but acquires particular relevance because of its combination with a vast amount of data from other people.[28] However, even in this case the problem is not new in itself: what the technological society changes from the past, if anything, is the ease with which such data can be found, but since forever, or at least since the capitalist mode of production has consolidated,[29] producers have had an interest in having as much information as possible about their customers. And such an information-gathering effort can arguably be accommodated in the existing legal framework without the need for new rules.

However, there are some areas in which we actually see the raise of new issues: in particular, artificial intelligence opens up scenarios that may conflict with the traditional notions of subjectivity, personality, responsibility (one can think of neural networks reproducing the functioning of the human brain, of machine learning, and the internet of things).[30]

In these cases, some new questions undoubtedly arise, which were not even conceivable a few years ago, and which are therefore worthy of further investigation. New problems certainly call for new answers, but the question becomes where

[27] For a study of the difficulties in complying with the new General Data Protection Regulation, see Sean Sirur, JRC Nurse and H Webb, "Are We There Yet?: Understanding the Challenges Faced in Complying with the General Data Protection Regulation (GDPR)" in *Proceedings of the 2nd International Workshop on Multimedia Privacy and Security* (ACM 2018) 88; see also the critique to the GDPR by TZ Zarsky, "Incompatible: The GDPR in the Age of Big Data" (2017) 47 Seton Hall Law Review 995. For a defence of pre-GDPR EU privacy laws, see C Kuner and others, "Let's not Kill all the Privacy Laws (and Lawyers)" (2011) 1(4) International Data Privacy Law 209.

[28] See Shaira Thobani, *Diritti della personalità e contratto: dalle fattispecie più tradizionali al trattamento in massa dei dati personali* (Ledizioni 2018).

[29] To use the words of one of its paramount critics, Karl Marx.

[30] To a certain extent, this was already the contention made by D Friedman, "Does Technology Require New Law" (2001) 25 Harvard Journal of Law & Public Policy 71, 85: "If what we mean by 'new law' is 'new legal rules at the level of generality of the rules now used to decide cases', it is clear that new technologies will at least sometimes require new laws".

these answers should be found: do they require new law, or is the existing law sufficiently well equipped to accommodate these new questions?

In the next paragraph, I will argue why it is appropriate to refer, as often as possible, to existing law. Here, I would just like to add a comment about the fact that we can usefully distinguish between hard law and soft law when approaching this matter.[31] In fact, admittedly, what could be beneficial in order to effectively deal with the digital age is not a new wave of hard law, but at most a new set of soft law, simply helping to put what is new into context, to define it, and to make sense of it in perspective.

From this point of view, the white and green papers of the European institutions are something useful, as are the various policy tools available to regulators to clarify a matter, without intervening in an intrusive way. Soft law instruments are particularly to be welcomed when they anticipate future enforcement practices by public authorities, so as to dispel the possible uncertainty.

Also, the perspective of regulatory sandboxes appears to be a useful road to go down: as was effectively explained, "a regulatory sandbox is a framework set up by a financial sector regulator to allow small scale, live testing of innovations by private firms in a controlled environment (operating under a special exemption, allowance, or other limited, time-bound exception) under the regulator's supervision. The concept, which was developed in a time of rapid technological innovation in financial markets, is an attempt to address the frictions between regulators' desire

[31] For a general discussion, see GC Shaffer and MA Pollack, "Hard vs. Soft Law: Alternatives, Complements, and Antagonists in International Governance" (2010) 94 Minnesota Law Review 706.

to encourage and enable innovation and the emphasis on regulation following the financial crisis of 2007–2008".[32]

This notion has emerged in the world of fintech, but could be usefully used in all areas of law that have to do with innovation: it would be a new way of dealing with novelties, without recourse to pre-emptive hard law.[33]

IV. Something borrowed

Ultimately, what the law can usefully do in order to deal with the new emerging technologies is to draw on the experiences of the past, and thus make use of the existing law, handed down to us precisely from the past.

What we should do, in particular, is to borrow the existing law and apply it to new cases: when a new technology is created, the preferred operation by both *policy-makers* and interpreters would be to consider the legal categories existing in private law, and make use of those that can be usefully applied to establish a framework for it. The tendency that we can observe, for instance in the field of DLTs,[34] seems rather to be to engage in a contest between different jurisdictions in order to be the first one to dictate new rules, often introducing new legal categories, in the hope of triggering a process of imitation of their solutions.

But if the legal comparison and the possible loan or transplant of rules from one system to another can undoubtedly be profitable in practice, in this case it would be preferable for the various systems to frame the novelty in their own categories. These categories, in fact, reflect at least in part a consolidation of legal 'claims'—to use Leoni's notion—to which over time the community of reference has recognised legitimacy and protection. It appears a wise choice in terms of policy to borrow such claims in order to frame the new ones that arise with the emergence of disruptive technologies.

This approach could face an objection if we consider, for example, a field such as the sharing economy, and in particular the case of Uber: borrowing the rules of other sectors could lead, for example, to believe that we have to apply the

[32] I Jenik and K Lauer, "Regulatory Sandboxes and Financial Inclusion" CGAP Working Paper, October 2017, <https://www.cgap.org/sites/default/files/Working-Paper-Regulatory-Sandboxes-Oct-2017.pdf> (accessed 25 October 2019).

[33] See various reflections in Financial Conduct Authority, Regulatory sandbox, November 2015, <http://www.ifashops.com/wp-content/uploads/2015/11/regulatory-sandbox.pdf> (accessed 25 October 2019); DW Arner and others, "FinTech and RegTech in a Nutshell, and the Future in a Sandbox" (2017) CFA Institute Research Foundation, 16ff; DA. Zetzsche *et al*, "Regulating a Revolution: From Regulatory Sandboxes to Smart Regulation" (2017) 23 Fordham Journal of Corporate & Financial Law 31.

[34] See for instance R Girasa, *Regulation of Cryptocurrencies and Blockchain Technologies. National and International Perspectives* (Palgrave Macmillan 2018), especially ch 8, *International Regulation*, 199ff.

rules of labour law to the relationship between this company and its drivers, as is in fact invoked by the drivers themselves in different disputes in various jurisdictions.[35] Moreover, quite surprisingly, it was this very company that called, at policy level, for the introduction of new rules, so as to have a clear and defined regulatory framework within which to operate,[36] as if the existing law did not already contain rules that legitimised its action, if not at the level of ordinary legislation, at least at the constitutional level.[37]

Moreover, Uber repeated this strategy also in court, when it insisted on arguing that it carried out an activity that could not be framed as public passenger transport, which required instead specific treatment by the law (possibly, precisely, ad hoc treatment, and in any case new). This strategy has notoriously turned out to be a losing one before the Court of Justice of the Eu, which has instead found an identity between the activity carried out by Uber and the public transport activity carried out by existing operators, thus confirming that the existing law is able to make room for many of the innovations that are emerging, without the need for legislative interventions ex *novo*.

It is my contention that a more incisive strategy, even though admittedly not necessarily poised for success, would have been one based on acknowledging the facts, namely that the Uber directly competes with public transport operators, while at the same time claiming that it is (already now) allowed do so on the basis of the unalienable freedom of economic initiative, as well as of an immanent general principle of competition, which trumps any contrasting lower-ranking legislation.[38]

Consequently, borrowing the existing legislation appears to be the preferable choice, both in terms of general public policy, and for the disruptive companies involved themselves: deferring to the legislator for new legislation means putting oneself in the hands of the latter, with the risk that it will never decide, and in

[35] For a useful overview, see K Vizjak, "Uber – An Overview of the International Case Law" in Janja Hojnik (ed), *Sharing Economy in Europe: Opportunities and Challenges* (Zavod 14, 2018) 89ff.

[36] See for instance this report by C Zillman, "This Uber Exec Says the Startup 'Wants to Be Regulated" *Fortune* (New York, 14 June 2016) <http://fortune.com/2016/06/14/this-uber-exec-says-the-startup-wants-to-be-regulated/> (accessed 25 October 2019). For a quite opposite reading of Uber's regulatory policies, see R Collier, V Dubal and C Carter, "Disrupting Regulation, Regulating Disruption: The Politics of Uber in the United States" (2018) 16(4) *Perspectives on Politics* 919.

[37] I made this point, with regard to the Italian case (but the argument is valid in any other Western jurisdiction), in R de Caria, 'Profili di illegittimità nella disciplina italiana del trasporto pubblico non di linea' (2015) OPAL – Osservatorio per le autonomie locali N. 7.

[38] See M Delsignore, *Il contingentamento dell'iniziativa economica privata. Il caso non unico delle farmacie aperte al pubblico* (Giuffrè 2011).

any case that opportunities will be created for a very strong lobbying war between opposing positions, which inevitably ends up corrupting the law.[39]

V. Something blue

In the traditional matrimonial iconography, the blue item is meant to represent especially the value of purity, and fidelity between the bride and the groom. In our metaphor, the relationship between law and technology should be built in the spirit of fidelity by technological innovations to established law, that can thus preserve its purity.

As argued at the end of the previous paragraph, the value of purity of the law cannot give in to any need of the moment, however urgent it may appear. No matter how great the problems raised by the new technologies may appear, we must remain faithful to the idea that the law can evolve gradually, without shake-ups.

As Leoni put it, "Clearly 'legal' demands on one hand, and clearly 'illegal' demands on the other are located at the opposite ends of a spectrum comprising all demands that people may make in any given society at any given time. One should not forget, however, the huge intermediate sector of less definable 'quasi-legal' or 'quasi-illegal' demands whose probabilities of being satisfied are lower than those of clearly 'legal' demands, but still higher than those of clearly 'illegal' ones. The position of many, if not all, demands in the spectrum may change and is actually changing in any society at any given time. This process, to use Justinian's famous words, '*semper in infinitum decurrit*' (is always continuing), and we could not grasp it without introducing the time dimension. New demands may appear while old ones fade away, and present demands may change their position in the spectrum. The whole process may be therefore described as a continuous change of the respective probabilities that all demands have to be satisfied in a given society at any given time".[40]

Our faith should therefore be placed with the steady, and slow process of creation of the law, rather than with legislation: "This is certainly due, among other things, to the conventional faith of our time in the virtues of 'representative'

[39] In Leoni's words: "legislation is traced back, more or less implicitly, to the unconditioned will of a sovereign, whoever he may be. The very idea of legislation encourages the hopes of all those who imagine that legislation, as a result of the unconditioned will of some people, will be able to reach ends that could never be reached by ordinary procedures adopted by ordinary men; that is, by judges and lawyers. The usual phrase by the man in the street today, 'There ought to be a law' for this or for that, is the naive expression of that faith in legislation. While the processes conducive to lawyers'-law and judge-made-law appear as conditioned ways of producing law, the legislative process appears, or tends to appear, to be unconditioned and a pure matter of will' (Leoni (n 23)).

[40] Leoni (n 23).

democracy, notwithstanding the fact that 'representation' appears to be a very dubious process even to those experts on politics who would not go so far as to say with Schumpeter that representative democracy today is a 'sham'. This faith may prevent one from recognising that the more numerous the people are whom one tries to 'represent' through the legislative process and the more numerous the matters in which one tries to represent them, the less the word 'representation' has a meaning referable to the actual will of actual people other than that of the persons named as their 'representatives'".[41]

Policy-wise, this also implies that the regulation of digital technologies should be better left within the field of private law: the current expansion of the public law domain[42] is a move to reject, because it arguably leads to the interference of external interests, that are borne by somebody who is not involved in a transaction, in the free interplay of contractual wills by the parties to that transaction: "Dean Roscoe Pound pointed out in an essay cited by Professor Hayek that contemporary tendencies in the exposition of public law subordinate the interests 'of the individual to those of the public official' by allowing the latter 'to identify one side of the controversy with the public interest and so give it a great value and ignore the others.' This applies more or less to all kinds of administrative laws, whether they are administered by independent courts or not".[43]

In other words, injecting public law considerations into contractual relationships that should remain private is severely in danger of altering those relationships. As Leoni himself put it by making the example of marriage, particularly in tune with my own metaphor here, "That the legislators, at least in the West, still refrain from interfering in such fields of individual activity as speaking or choosing one's marriage partner or wearing a particular style of clothing or traveling usually conceals the raw fact that they actually do have the power to interfere in every one of these fields".[44] Admittedly, legislators have in fact the power to interfere and regulate the situations emerging from the new technological

[41] *ibid*.

[42] See the reflections on this topic by M Ruffert, "Public Law and the Economy: A Comparative View from the German Perspective" (2013) 11(4) International Journal of Constitutional Law 925.

[43] Leoni (n 23), citing FA Hayek, *The Political Ideal of the Rule of Law* (Cairo: Fiftieth Anniversary Commemoration Lectures, National Bank of Egypt 1955), 57 (later taken up in *The Constitution of Liberty*).

[44] Leoni (n 23).

advancements, but should arguably refrain from doing so, no less than how they normally refrain from interfering in marital relationships.

VI. Law and disruptive technologies: a happy marriage?

Ultimately, on the one hand, it may seem useful for lawyers to invent new categories in order to be ahead of the curve and not to give the feeling of being left behind, but it must always be stressed that the absence of new rules does not imply any regulatory vacuum *tout-court*,[45] and in any case even the regulatory vacuum is not in itself to be rejected.

In all modern legal systems, the "presumption of liberty"[46] should apply, according to which all acts not expressly prohibited by the law must be deemed lawful. In a rather peculiar move, a few years ago Italy decided to sanction this principle (even more oddly, only by way of ordinary law),[47] but this principle, even if implicit, is immanent to all democratic legal systems based on freedom and the rule of law. But if this is true, to go back to some of my examples, Uber does not—or at least should not—need new pre-emptive rules in order to know how to operate, or even to see itself legitimated to operate; Bitcoin of blockchain do not (or should not) need a normative definition in order to be able to be legitimately employed; artificial intelligence does not require a completely new legal paradigm and framework in order to be regulated; and so on.

I therefore submit that the law should not run after the latest technological advancement, but rather take a step back and effectively apply consolidated principles from the past even to today's fanciest technological gadgets In terms of policy, a strong self-restraint by legislators and regulators worldwide is in order: old-time customary law can arguably be much more effective in regulating the digital phenomena, than any hard-law attempt at reigning in an area that is irreconcilable with the uncertainties brought about by the tantrums of written law.

The use of the so-called new *Lex Mercatoria*[48] and customary law to tackle such hot topics as artificial intelligence, or internet of things, or robotics, might appear far-fetched. But what is stratified over time is what is really meant to last, overcoming the fashions of the moment. The most preferable approach seems

[45] In the field of DLTs, this view was shared for instance by IM Barsan, "Legal Challenges of Initial Coin Offerings (ICO)" (2017) Revue Trimestrielle de Droit Financier 54, 56, although the author reaches quite different policy conclusions than the ones advocated for here.

[46] On which see, among many, RE Barnett, *Restoring the Lost Constitution: The Presumption of Liberty* (Princeton University Press 2003).

[47] Art 3 of Decree-law 13 August 2011, No. 138, converted with amendments into law 14 September 2011, No 148

[48] For a comprehensive account, see, among many, A Stone Sweet, "The new *Lex Mercatoria* and transnational governance" (2006) 13(5) Journal of European Public Policy 627.

therefore to rely on the general "presumption of liberty", to admit that any new activity, however unusual and disruptive it may be, is lawful, unless it is expressly prohibited by an existing rule (but then by definition it will not really be so new), and to adopt a wait-and-see approach, possibly with the wide-ranging use, beyond the financial field, of the regulatory sandboxes.[49]

After all, the fact that certain areas of the law currently are comparatively less relevant than others, in terms of their economic relevance, does not change the nature of those areas of the law, let alone of the law in general itself: movable property may have become more valuable than immovable property, but legal categories remain the same that have been established over the centuries.

The relationship between technology and law can therefore be a happy and lasting marriage, provided that everyone maintains their own personality, and the bursting strength of the new technologies does not force the law to passively yield to the needs of the "partner": in order to avoid being cannibalised, the law must follow its own path, without compromising or losing its nature to chase the technology. Then the latter will find in the law strong, consolidated and useful categories, not destined to change within a short time-frame: only these can be solid bases for their relationship to be lasting and happy.

[49] We should indeed never underestimate the adverse effect on innovation – and thus economic cost – that a vast application of the precautionary principle can have, for instance as applied to tort law: see G Parchomovsky and A Stein, "Torts and Innovation" (2008) 107 Michigan Law Review 285.