

From data property to data access and back again? Comparative remarks on the EU Data Act

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1. Preliminary remarks

Data has gained crucial importance in the contemporary society. The rapid increase in the amount of data generated worldwide is impressive and it is expected to reach 163 zettabytes in 2025, that is a trillion of gigabytes (ten times the 16.1ZB of data generated in 2016)¹.

Digitalisation involves both personal data and data that has no direct link to the person. More precisely, data can be distinguished in at least four categories: i) some are the result of the datafication of real-life objects; ii) others are related to the datafication of information (news, research results, etc.), thus constituting the outcome of intellectual activity or the representation of immaterial entities; iii) others are related to people taken up through platforms and services available on the Web, allowing news about orientations, opinions, and sensitive aspects (age, name, gender, attitudes, behaviour) to be obtained; and iv) finally, there are data automatically generated by digital technologies².

Due to its enormous economic value, the language of ownership is often used to claim that data belong or should belong to someone. Suffice to remember that the former Business Director of Cambridge Analytica, after giving evidence exposing its data harvesting practices, became a public speaker with the handle #OwnYourOwnData³. The term 'own' clearly evokes the need to identify someone to whom this new asset belongs.

From a legal point of view, however, the qualification in terms of ownership is controversial and equivocal, because data has peculiar characters which distinguish it from other entities, whether material or immaterial. It can be used simultaneously by an indefinite number of subjects, so its use is not 'rival'. Moreover, data is not perishable and it does not have to exist at one specific place in the world: the same data could be instantiated in numerous diverse and scattered copies and its use does not alter its consistency in any way. Last but not least, data do not assume relevance in itself, but rather in aggregation with other data, appropriately collected and processed by computer tools (data analytics), thus soon escaping any possibility of identification.

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¹ European Commission, *A European strategy for data* (2020) COM(2020) 66 final. This estimation is based on the White Paper issued in 2017 by International Data Corporation (<https://www.seagate.com/files/www-content/our-story/trends/files/Seagate-WP-DataAge2025-March-2017.pdf>).

² J.-S. Bergé, S. Grumbach, V. Zeno Zencovich, *The 'Datasphere', Data Flows beyond Control, and the Challenges for Law and Governance*, in *Eur. J. Comparative Law and Governance*, 2018, p. 144 ff.

³ Cf. the petition with the strap line 'Mark Zuckerberg, change Facebook's rules and give us back control over our data, our digital assets, our property', started in 2018 by Brittany Kaiser, *Tell Facebook: Our Data Is Our Property #OwnYourData* (<https://www.change.org/p/tell-facebook-our-data-is-our-property-ownyourdata>).

The present contribution focuses on one of the various ways through which data is collected, the so-called Internet of Things (IoT). As it is well known, products interact and gain 'intelligence' because they can communicate data about themselves and access aggregated information from others. Data is stored and processed by smart connected objects (cars, home appliances, manufacturing robots) and in computing facilities, closer to the user than in classical clouds (this phenomenon is known as 'edge computing').

The recent EU Data Act addresses this phenomenon with a complex and sometimes cumbersome regulatory framework⁴. Moving from a brief account of the European approach to data, whose paradigm – it is assumed – is shifting from property to access (§ 2), this paper explores the main contents of the Regulation (§ 3) and focuses on the new rights of access introduced by it (§ 4). The Regulation does not clarify the legal status of data and does not face the problem of its allocation, assuming that these aspects can be circumvented in favour of a regulatory approach focussed on the creation of an access and management regime. The difficulty to tackle openly the nature of data is essentially due to the different lexicons of property in the civil law and the common law legal traditions (§ 5). However, being a crucial issue, this paper claims that new technologies call upon jurists to take a creative effort in order to contribute to face the new challenges of our contemporary society (§ 6).

2. The EU approach to data: from property to access

The lack of a normative framework for claims in data and the absence of exclusive usage rights on data are at the origin of a deep debate since the beginning of the 2010s in Europe and of intense legislative activity. Suffice to mention the well-known Regulation on personal data (GDPR) adopted in 2016⁵, followed by the Regulation of non-personal data in 2018⁶, the Open Data Directive in 2019⁷, the Data Governance Act (DGA) in 2022⁸, the Digital Service Act (DSA) in 2022⁹, the Digital Markets Act in 2022¹⁰ and the recent Data Act, adopted at the end of 2023. This body of laws seems to be in a continuous process, with many announced complementary legislative initiatives, such as the Artificial Intelligence Act¹¹ and the Revised Product Liability Directive proposal¹², both of them of imminent finalisation.

Referred to as EU data legislation or EU data law, these data and data-related legislative initiatives witness the rising interest of the EU legislator in a comprehensive regulation of digital

⁴ Regulation (EU) 2023/2854 of the European Parliament and of the Council of 13 December 2023 on harmonised rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828 (Data Act) [2023] OJ L 2854.

⁵ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation or GDPR) [2016], OJ L 119/1.

⁶ Regulation (EU) 2018/1807 of the European Parliament and of the Council of 14 November 2018 on a framework for the free flow of non-personal data in the European Union [2019], OJ L 303/59.

⁷ Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the reuse of public sector information (Open Data Directive) [2019], OJ L 172/56.

⁸ Regulation (EU) 2022/868 of the European Parliament and of the Council of 30 May 2022 on European data governance and amending Regulation (EU) 2018/1724 (Data Governance Act) [2022], OJ L 152/1.

⁹ Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC (Digital Services Act) [2022] OJ L 277/1.

¹⁰ Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) [2022] OJ L 265/.

¹¹ The Final draft, as of 2nd February 2024, is available at <https://artificialintelligenceact.eu/ai-act-explorer/>.

¹² The draft proposal, issued in 2022, is available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022PC0495>.

and data-intensive markets, *i.e.* in an EU Data Strategy¹³, aiming to strengthen the position of the European Union as a global actor, independently of other countries and international organisations. The term ‘digital sovereignty’ is evoked to mean the EU’s capacity to act in the digital domain in order to protect its vital interests and those of its Member States¹⁴.

The EU data policy approach has been enshrined in the 2020 European Strategy for Data:

[it] stems from European values and fundamental rights and the conviction that the human being is and should remain at the centre. The Commission is convinced that businesses and the public sector in the EU can be empowered through the use of data to make better decisions. It is all the more compelling to seize the opportunity presented by data for social and economic good, as data – unlike most economic resources – can be replicated at nearly zero cost, and its use by one person or organisation does not prevent the simultaneous use by another person or organisation. That potential should be put to work to address the needs of individuals and thus create value for the economy and society. To release this potential, there is a need to ensure better access to data and its responsible usage¹⁵.

Hence, the EU Commission calls for a better use of data in the EU economy, based on the “very identity of the European Union as a common legal order” (respect for human dignity, freedom, democracy, equality, the rule of law, and human rights, including the rights of persons belonging to minorities).

The EU Data Strategy is based on four pillars. Pillar 1 concerns the regulatory framework to be introduced to ensure better access to data and a more responsible use of it. The Data Governance Act sets a legislative framework for the governance of the European data spaces and the Data Act aims at incentivising data availability for access and re-use. Pillar 2 is related to the implementation of initiatives aimed to strengthen the EU’s capabilities for hosting, processing, and using data, through funding the creation and functioning of common European data spaces and interconnecting cloud infrastructures to overcome the legal and technical barriers to data sharing across Europe. Pillar 3 looks at the empowerment of individuals, implementing measures to enforce individuals’ rights when it comes to the use of the data they generate. Pillar 4 complements the other pillars by fostering the development of common European data spaces in strategic economic sectors and other domains of public interest.

At the beginning of this process, legal doctrine and policymakers were confronted with the issue of establishing the nature of data. They explored the idea of creating ‘data ownership’ or a ‘data producers’ right’¹⁶, but subsequently found that establishing such a right would be unfeasible, due to the difficulty in objectively determining to whom a novel right in data should be attributed among the owner of a device that contains the data, the parties having a contractual relationship with such an owner, or the persons who wrote the data¹⁷. Another difficulty is related to the problem of establishing whether this right should include the recoverability of data and exclusivity over access, considering the nonrivalrous nature of data, which can be used by multiple parties without being

¹³ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A European strategy for data (the European Data Strategy), COM/2020/66 final [2020]. For a comprehensive account, see T. Streinz, *The Evolution of European Data Law*, in P. Craig, G. de Búrca (eds.), *The Evolution of EU Law*, 3rd edn, Oxford, 2021, ch. 29.

¹⁴ F. Casolari, C. Buttabori, L. Floridi, *The EU Data Act in Context: A Legal Assessment*, September 26, 2023 (<https://ssrn.com/abstract=4584781> or <http://dx.doi.org/10.2139/ssrn.4584781>).

¹⁵ Communication on A European Strategy for Data, COM(2020) 66 final, 19 February 2020.

¹⁶ Cf. the EU Commission’s Communication “Building a European Data Economy”, 10 January 2017, COM(2017) 9 final (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017DC0009>), where a producer’s right to use and authorise the use of nonpersonal data is discussed (p. 13).

¹⁷ In a strongly critical sense about bringing data into the orbit of ownership, v. S. Gutwirth, G. González Fuster, *L’éternel retour de la propriété des données: de l’insistance d’un mot d’ordre*, in C. de Terwangne, E. Degrave, S. Dusollier, R. Queck (eds.), *Law, Norms and Freedoms in Cyberspace. Liber Amicorum Yves Poullet*, Bruxelles, 2018, p. 117 ff. In partially different sense, A. Strowel, *Les données: des ressources en quête de propriété*, *ivi*, p. 251 ff.

consumed.

The difficulties in solving such relevant problems led to abandon – at least apparently - the initial perspective aimed at creating *ex novo* property-shaped rights to data, in favour of a governance regime, broadly defined as a system of rights and responsibilities that determines who can take what actions with respect to data, with the focus being placed on the management of such rights and responsibilities¹⁸.

3. The Data Act

The Data Act is the latest achievement in the European Data strategy. It introduces cross-sectoral access and usage rights as regards data generated by connected products or related services, aspiring to promote the data economy by enabling the broad utilisation of such data.

According to Recital 6, “the data recorded by connected products or related services are an important input for aftermarket, ancillary and other services”. Recital 15 clarifies that “data includes data collected from a single sensor or a connected group of sensors for the purpose of making the collected data comprehensible for wider use-cases”; “such data [...] support innovation and the development of digital and other services to protect the environment, health and the circular economy, including through facilitating the maintenance and repair of the connected products in question”.

Introducing data access and usage rights aims at mitigating contractual imbalances and legal uncertainty, identified as ‘problem drivers’ leading to the suboptimal realisation of the value of data. In this respect, the DA pursues the objective to empower users and grant them data control, limiting the *de facto* control enjoyed by the data holder in the context of the so-called Internet of Things. It also fosters data reuse for innovative and other public policy purposes, such as the safeguard of the environment, the transition to the circular economy and the protection of health.

In order to achieve these aims, the DA envisages two new control rights: the right to access the data generated by IoT products and ancillary services (ch. II, articles 3-7) and the right to switch to another service provider (ch. VI, articles 23-31).

Starting from the first right, it is worth considering Article 3, according to which “connected products shall be designed and manufactured, and related services shall be designed and provided, in such a manner that product data and related service data, including the relevant metadata necessary to interpret and use those data, are, by default, easily, securely, free of charge, in a comprehensive, structured, commonly used and machine-readable format, and, where relevant and technically feasible, *directly accessible to the user*” (emphasis added).

Article 4 then clarifies: “Where data cannot be directly accessed by the user from the connected product or related service, data holders shall make readily available data, as well as the relevant metadata necessary to interpret and use those data, accessible to the user without undue delay, of the same quality as is available to the data holder, easily, securely, free of charge, in a comprehensive, structured, commonly used and machine-readable format and, where relevant and technically feasible, continuously and in real-time. This shall be done on the basis of a simple request through electronic means where technically feasible”.

The user’s right to access data can also be assigned to a third party. In fact, article 5 obliges the data holder to make data available upon request of the data user. This service can be remunerated, in case of agreement between the data user and the data holder (Article 9).

The other new right provided by the DA is significantly described under the heading “switching between data processing services”. It allows costumers “to switch to a data processing service, covering the same service type, which is provided by a different provider of data processing

¹⁸ In this sense, T.Margoni, C. Ducuing, L.Schirru, *Data Property, Data Governance and Common European Data Spaces*, in *Computerrecht: Tijdschrift voor Informatica, Telecommunicatie en Recht*, 2023, §2 (<https://ssrn.com/abstract=4428364>).

services, or to on-premises ICT infrastructure, or, where relevant, to use several providers of data processing services at the same time” (art. 23).

The switch is regulated by a written contract, whose content is detailed in art. 25. It shall provide “clauses allowing the customer, upon request, to switch to a data processing service offered by a different provider of data processing services or to port all exportable data and digital assets to an on-premises ICT infrastructure, without undue delay and in any event not after the mandatory maximum transitional period of 30 calendar days [...]”. It shall also provide “an obligation of the provider of data processing services to support the customer’s exit strategy relevant to the contracted services, including by providing all relevant information” and a clause specifying that the contract shall be considered to be terminated and the customer shall be notified of the termination upon the successful completion of the switching process or at the end of two months, together with other provisions concerning the specification of data that can be ported and the ones exempted from exportability, eventual switching charges.

Overall, it clearly emerges a very heavy intervention on the parties’ autonomy, with very complicated provisions, whose concrete efficacy is at least doubtful. Moreover, the contract will be governed by the applicable national law, with evident outcomes in terms of divergences and disparities within Europe.

Before coming to analyse the nature of these two new rights, it is worth considering that the Data Act aims to remove barriers for access to data and to make more data in the EU usable to support sustainable growth and innovation. Initially, in its proposal of the Data Act, the Commission associated data usability with opening up access to data, but without considering its technical state. This option was criticised by the first commentators, because it would have locked the value of data. Access to raw data could prove to be useless without any specification of the way through which it should be processed in order to guarantee its concrete usability. For this reason, strong criticism was raised towards the proposal. In the definitive version, a new Recital 14 specifies the technical state of data covered by the Data Act, including the notion of “metadata that is necessary to interpret and use [data]” as part of the data holders’ obligations. This late attempt to align the Data Act with the technical practicalities of data-sharing makes that the Regulation is full of ambiguous notions (‘readily available data’, ‘disproportionate efforts’, ‘simple operation’, ‘pre-processed data’, ‘significant investment’), opening the way to many uncertainties¹⁹.

4. Exclusive rights on data?

After the brief account on the new rights introduced by the Data Act, it’s now time to consider their nature. At a first glance, they seem to confirm the shift from data property to data access previously evoked. This is visible in the wording of Recital 5, according to which the Regulation “ensures that users of a connected product or related service in the Union *can access*, in a timely manner, the data generated by the use of that connected product or related service and that those users can use the data, including by sharing them with third parties of their choice” (emphasis added).

However, a closer look at the text of the Regulation contradicts this reading. In particular, art. 4(13) prescribes that “A data holder shall *only* use any readily available data that is non-personal data *on the basis of a contract with the user*” (emphasis added).

Already contained in art. 4(6) of the proposal, this provision attracted a vivid criticism, meaning unequivocally that the user has an exclusive right to his/her non-personal data and that the data

¹⁹ For a comprehensive account, see D. Kim-M.W. Kwok, *Data Usability as a Parameter of Rights and Obligations under the EU Data Act* (February 1, 2024). Max Planck Institute for Innovation & Competition Research Paper No. 24-04 (<https://ssrn.com/abstract=4720900> or <http://dx.doi.org/10.2139/ssrn.4720900>).

holder cannot use it without a previous contract with the user²⁰.

Notwithstanding the suggestion to revise the text, in the definitive version of the Regulation the original provision is unaltered. Hence, the use of non-personal data collected by an IoT is subject to the prior conclusion of a contract. As it has been correctly observed, this means that the user keeps the contractual control over 'his/her' data, even if the fundamental rights protecting personal data or exclusive IP or other property rights are not involved²¹. Without the explicit user's consent, no data can be collected and processed, nor are data holders authorised to make available non-personal product data to third parties for commercial or non-commercial purposes other than the fulfilment of their contract with the user (art. 4.14)²².

Hence, the Data Act introduces *de facto* exclusive access-and-use rights in non-personal use-generated IoT data, questioning the common understanding according to which the European legislator abandoned the proprietary option in favour of an access regime.

The legal framework for a European data economy takes place presuming that it is possible to circumvent the problem of the legal status of data from a private law perspective, in favour of a regulatory approach focussed on the creation of access and management regime. The introduction of rights of access without clarifying the legal status of data and facing the problem of its allocation turns out to be not coherent²³. Not only the adopted definition of data is quite generic²⁴, but the fact that data is in the exclusive legal sphere of the user shows that the declared option to abandon the property discourse in favour of the creation of rights of access to data is not satisfied. As the new rights have a proprietary flavour, what was intended to go out the door went back from the window, leaving unsolved the main problem of affording the legal status of data.

5. The legal status of data and the different lexicons of property

The difficulty to openly tackle the nature of data is essentially due to the different lexicons of property in the civil law and the common law legal traditions. This is not the place to address such a broad topic. Suffice to remember that in the civil law experience (France, Germany, Spain, Italy, etc.), in the definitions contained in the continental codes and in the systematic-conceptual framework, property continues to be shaped as a right tailored to the materiality of its object and connoted by the characters of absoluteness, plenitude and exclusiveness²⁵.

The origins of this conception are commonly related to the influence of Roman law and, in particular, to the distinction between corporeal things (*res corporales, quae tangi possunt*) and incorporeal things (*res incorporales, quae tangi non possunt*). The former included land, slaves, garments, gold, etc., while the latter included usufruct, the right of inheritance, and claims resulting

²⁰ The critics is raised, among others, by J. Drexler et al., *Position Statement of the Max Planck Institute for Innovation and Competition of 25 May 2022 on the Commission's Proposal of 23 February 2022 for a Regulation on Harmonised Rules on Fair Access to and Use of Data (Data Act) 2022* (<https://www.ip.mpg.de/en/publications/details/position-statement-of-the-max-planck-institute-for-innovation-and-competition-of-25-may-2022-on-the-commissions-proposal-of-23-february-2022-for-a-regulation-on-harmonised-rules-on-fair-access-to-and-use-of-data-data-act.html>).

²¹ Cf. M. Leistner, L. Antoine, *IPR and the use of open data and data sharing initiatives by public and private actors*, Report for the EP JURI Committee, 2022, p. 92 ([https://www.europarl.europa.eu/RegData/etudes/STUD/2022/732266/IPOL_STU\(2022\)732266_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2022/732266/IPOL_STU(2022)732266_EN.pdf)).

²² S. Geigerat, *The Data Act: Start of a New Era for Data Ownership?*, September 8, 2022 (<https://ssrn.com/abstract=4214704> or <http://dx.doi.org/10.2139/ssrn.4214704>).

²³ In this sense, cf. the insightful remarks by F. Szilágyi, *The necessity of data allocation: A plea for a private law (property law) perspective*, in *European Property Law Journal*, vol. 10, no. 2-3, 2021, p. 180ff. (<https://doi.org/10.1515/eplj-2021-001>).

²⁴ "Any digital representation of acts, facts or information and any compilation of such acts, facts or information, including in the form of sound, visual or audio-visual recording" (art. 2.1).

²⁵ L. Moccia, *Basic Ways of Defining Property*, in Aa.Vv., *Colloqui in ricordo di Michele Giorgianni*, Napoli, 2007, p. 761 ff. For a general introduction to the different models of property, see also Id., *Forme della proprietà nella tradizione giuridica europea*, in L. Moccia, *Comparazione giuridica e prospettive di studio del diritto*, Padova, 2016, p. 105 ff.

from a right of obligation. The Roman jurists observed that not all material things have relevance from a legal point of view. Hence, the right of property was not included among the incorporeal things, because it acted as a filter to distinguish things that exist only from a legal point of view, as its creations, from things in the material sense, which derive their qualification and legal relevance as property insofar as they can be appropriated.

Despite the basic ambivalence of the term *res* (as a physical entity susceptible to appropriation and as an intangible object of ownership in the hands of someone, having the nature of a good insofar as it is part of his patrimony), property assumes prominence through a relationship of confusion-identification with the material thing that constitutes its object exclusively. The corporality of the thing stands in a bi-univocal relationship with the commonly accepted notion of property. On the one hand, the right, so to say, is embedded in the thing, in the sense that it is the thing that satisfies the subject's interest (and by this is distinguished from other legal situations). On the other hand, the right of ownership can only have things as its object, i.e., corporal entities.

In contrast, in the common law model (Anglo-American countries) one of the long-lasting heritages of the feudal model is a patrimonialistic conception of the relations of belonging, referring not to things understood in a material sense but to the rights that are exercisable over them and which, insofar as they have patrimonial value, constitute the object of belonging. The term property does not take on a unique and precise meaning, but it varies depending on the context in which it is used. It can designate a thing physically considered, but also rights concerning the use and enjoyment of that thing and even rights totally independent from a direct relation to a physical thing, such as a claim. One of the most relevant consequences of this conception is that more than one right of ownership may exist on the same thing²⁶.

In order to address where lies the conceptual difference between the two models, it is worth remembering a crucial remark, magisterially illustrated in the following excerpt:

Ownership would seem to the layman to be a simple notion. It is merely a question of *meum* and *tuum*. If the thing is mine, I own it; if it is not, I do not. Often the law conforms to this simple way of looking at ownership. Thus, for example, a person may live alone in a house which he has bought and paid for, no one else has any rights over it. [...] he can correctly say, without qualification, that the thing is his. Or he may reasonably say that he is an absolute owner. But even in such simple cases it is evident that the words absolute owner are being used to express two quite different ideas: that his ownership is both indisputable and that it is unshared. The owner is asserting at the same moment that he and no one else is entitled to the house and car, and that his interest in them is exclusive and complete; or, in negative terms, that no other person can regard the things as his and that no other person can do anything which cuts down their use or reduces their value. The one assertion relates to what lawyers call 'title', the other to the content of ownership. In English law [...] it is perfectly possible to have one without the other²⁷.

In the civil law tradition, ownership is related to physical things, so only one owner is conceivable, whose right is both indisputable and unshared. Whilst the dilatation of 'immaterial' entities is unquestioned, the qualification of digital entities as 'immaterial assets' collides with the difficulty of granting their owner the typical remedies associated with property, as a paradigm of the immediacy of the powers guaranteed by the law and of the effectiveness of the related remedies.

The idea of property as an absolute and exclusive right calibrated on the materiality of its object does not fit with goods that exist only in an immaterial dimension. As a consequence, when it is stated that we are in the presence of 'new assets', as such capable of becoming property objects, not only the content of the right of whoever owns them is not clear, but it is also excluded that the

²⁶ R. Goode, *What is property?*, in *Law Quarterly Review*, 2023, p. 1. See also M. Bridge, L. Gullifer, G. McMeel, K. F.K Low, *The Law of Personal Property*, 2nd ed., London, 2019 ("The common law of property is essentially about rights in things and the volume of rights that accompanies a particular type of proprietary interest", n. 4-002). In the same sense, W. Swadling, *Property: General Principles*, in P. Birks (eds.), *English Private Law*, vol. I, Oxford, 2000, n. 4.02.

²⁷ F.H.Lawson, B. Rudden, *The Law of Property*, 2nd ed., Oxford, 1982, pp. 6-7.

owner has the right to recover them from whoever is in their 'possession'. Significantly, while moving from the qualification in terms of assets capable of becoming the object of property, French authors are forced to ask themselves whether the right to them is comparable to the 'classical' property. They wonder, in particular, if the usual property remedies are available or not to the owner and conclude that "many of the new entities respond only in part to the classical regime of property. Their holder often enjoys limited, sometimes very limited, prerogatives"²⁸. These digital goods border on 'half' goods or 'mini' goods, unless they are simply 'false' goods"²⁹.

On the contrary, in the common law tradition ownership refers to the right to use a chose in possession or a chose in action and English judges have always shown themselves to be very flexible in order to include among the things in action every new right having patrimonial value. This happened, for example, for milk quotas³⁰, carbon emission quotas³¹, export quotas³², waste management licenses³³, and more recently for cryptocurrencies and NFTs³⁴.

The qualification of digital assets is being debated at length also in the common law world. Some scholars wonder whether it would be more appropriate to identify a *tertium genus* in order to provide a more precise legal framework with respect to the new digital entities, in respect of the traditional teaching according to which "all personal things are either in possession or in action. The law knows no *tertium quid* between the two"³⁵.

This issue was extensively addressed by the Law Commission in the Consultation Paper on Digital Assets issued in 2022 and reaffirmed in the Final Report issued in 2023³⁶, where it is observed that the category of things in action includes those rights that can be "asserted by taking legal action or proceedings", while digital assets exist independently of other subjects, so that it is not consistent to consider them as things in action. The recognition of a third category of personal property would make it possible to adequately consider the fact that digital assets have peculiar characteristics both with respect to things in possession and things in action³⁷.

It is not useful to go into the details of a rather theoretical discussion³⁸. Suffice to notice that it witnesses that the precise classification of 'digital assets' is problematic also in the common law

²⁸ See N. Martial-Braz, *Les NFT aux prises avec le droit des biens: essai d'une qualification*, in *Rev. Dr. Bancaire et Financier*, 2022, n. 4, p. 1.

²⁹ "nombre de nouveaux biens n'obéissent qu'assez partiellement au régime classique des biens et, notamment, aux articles 544 et suivants. Leur titulaire bénéficie souvent de prérogatives réduites, voire très réduites. Les vrais biens voisinent donc avec des demi-biens et des mini-biens à moins qu'il ne s'agisse, tout simplement, de faux biens": H. Périnet-Marquet, *Regard sur les nouveaux biens*, in *JCP*, éd. gén., 2010, p. 2071.

³⁰ *Swift v. Daisywise (No 1)* [2000] 1 WLR 1177.

³¹ *Armstrong DLW GmbH v Warrington Networks Ltd* [2012] EWHC 10 (Ch.).

³² *A-G of Hong-Kong v Chan Nai-Keung* [1987] 1 WLR 1339.

³³ *Re Celtic Extraction Ltd* [2001] Ch 475.

³⁴ *AA v Persons Unknown* [2020] 4 W.L.R. 35. This decision followed the conclusions adopted in 2019 by the UK Jurisdiction Taskforce in the document "Legal statement on cryptoassets and smart contracts" (https://35z8e83m1ih83drye280o9d1-wpengine.netdna-ssl.com/wp-content/uploads/2019/11/6.6056_IO_Cryptocurrencies_Statement_FINAL_WEB_111119-1.pdf).

³⁵ *OBG Ltd v Allan* [2007] UKHL 21, per Lord Fry.

³⁶ The Consultation Paper is available at <https://www.lawcom.gov.uk/project/digital-assets/> and the Report at <https://www.lawcom.gov.uk/project/digital-assets/>.

³⁷ The *tertium genus* thesis was developed by D. Fox, *Cryptocurrencies in the Common Law of Property*, in D. Fox-S. Green (eds.), *Cryptocurrencies in Public and Private Law*, Oxford, 2019, p. 139 ff., seguito da J-Sarra. L. Gullifer, *Crypto-claimants and bitcoin bankruptcy: Challenges for recognition and realization*, in *International Insolvency Review*, 2019, p. 233; see also J.D. Michels, C. Millard, *The New Things: Property Rights in Digital Files?*, in *Cambridge Law Journal*, 2022, p. 323.

³⁸ For a punchy critic against the *tertium genus*, see K.F.K. Low, *Cryptoassets and the Renaissance of the Tertium Quid?*, *cit.*, noting that today's debate seems in line with the one started over a century ago regarding the legal nature of copyright and, in general, of intellectual property rights (H. W. Elphinstone, *What is a Chose in Action?*, in *Law Quarterly Review*, 1893, p. 311, F. Pollock, *What is a Thing?*, *ivi*, 1894, p. 318; W.S. Holdsworth, *The History of the Treatment of Choses in Action by the Common Law*, in *Harv. L. Rev.*, 1920, p. 997). This debate has proved to be rather sterile, since the flexibility of the English model of property has allowed the courts to easily place those new situations in the realm of personal property.

world. Nevertheless, there is an almost unanimous consensus regarding their inclusion in the field of personal property and the 'proprietary' nature of the rights claimed by their owner³⁹.

6. Conclusive remarks on an unsolved dilemma

The question whether data, as other digital assets, is a 'thing' to which property rights attach is not purely academic. Due to the easily transportable nature of data, contractual or other legal remedies risk being inadequate in case of dispersion. After all, the recent experience with cryptocurrencies and NFTs demonstrates that this issue is at the origin of many controversies, because digital assets can be rapidly on-sold, copied and moved outside of a jurisdiction, jeopardising effective remedies not based on proprietary claims⁴⁰.

The EU approach leaves this crucial aspect unsolved. Circumventing the issue of the legal status of data is a source of relevant problems once data is transferred, eventually in violation of the contract between the user and the data holder.

As noted in the preceding paragraph, the traditional lexicons of property do not fit easily with the new phenomenon of datification. An effort is needed in order to imagine new paradigms, aiming at classifying data in a way being able to ensure an effective protection of the rights on it.

In this sense, being not anchored on the materiality of its object, the common law conception of property is physiologically inclined to include digital assets in its field⁴¹. This also explains why the data market developed rapidly in the U.S., where data is considered to be freely appropriable, even in the case of personal data⁴². Not by chance, companies in this field have been able to flourish with essentially no restrictions or with limited costs.

The common law patrimonialistic conception of property makes it possible than more than one right can exist in relation to the same asset. In this perspective, the 'user', the 'data holder', and the 'data recipient' (echoing the terminology used by the Data Act) could all be recognised having exclusive rights in respect of specific ways of exploiting and using data. If ownership does not directly refer to data but rather to the right to use it, it is possible to find a key to face the challenges of the data economy while also avoiding the risk of a normative hypertrophy that characterises the European legislative landscape.

If taken seriously, the comparative approach adopted in these pages opens the way to work on these basic assumptions. In the complex world we are living, jurists should not remain prisoners of outdated dogmas and concepts, turning around the delicate issue of allocating data without reaching coherent solutions.

³⁹ The qualification in terms of property is now almost unquestioned by English judges. See for instance *Lavinia Deborah Osbourne v. Persons Unknown and Others* [2023] EWHC 39. and it is generally accepted by the legal doctrine. See: P.G.Watts, F.K. Low, *The Case for Cryptoassets as Property*, 2022 (<https://ssrn.com/abstract=4354364>); T. Chan, *The nature of property in cryptoassets*, in *Legal Studies*, 2023 (<https://www.cambridge.org/core/journals/legal-studies/article/nature-of-property-in-cryptoassets/6B882C05BD3D9A7A924FBE41C359E92E>); J. Jacques, *E-money and trusts: a property analysis*, in *Law Quarterly Review*, 2022, p. 605. A dissenting view claims that cryptoassets are not property, being independent of a single operator or a particular legal system backed up by state power and so making it impossible to identify a right, power, privilege or immunity they could give rise to in legal proceedings. In this sense, R. Stevens, *Crypto is not Property*, in *Law Quarterly Review*, 2023 (<https://ssrn.com/abstract=4416200>).

⁴⁰ E. Calzolaio, *Digital assets and property: comparative remarks from a civil law perspective*, in *Comparative Law Review*, 2023, no. 2, p 17 ff. (<http://www.comparativelawreview.unipg.it/index.php/comparative/article/view/279>). For converging remarks, cf. A. Raw, D. Clifford, H. Roberts, *Digital Assets as Property and the Challenges of Forced Judicial Activism*, in N. Mrozkova, A. Nair, L. Rosti (eds.), *Modern Studies in Property Law*, vol. 12, London, 2023, p. 12 ff.

⁴¹ Significantly, the term "digital estate" is commonly used. See L. Sagar-J. Burroughs, *The Digital Estate*, 2nd ed., London, 2022, in particular pp. 221 ff.

⁴² For a comprehensive account and further references, cf. J. Grimmelmann-C. Mulligan, *Data Property*, in *American University Law Review*, 2023, pp. 829 ff., available at <https://aualawreview.org/blog/data-property/>.

Abstract

Due to its enormous economic value, the language of ownership is often used to claim that data belong or should belong to someone. From a legal point of view, however, the qualification in terms of ownership is controversial and equivocal, because data has peculiar characters which distinguish it from other entities, whether material or immaterial. The present contribution focuses on one of the various ways through which data is collected, the so-called Internet of Things (IoT). The recent EU Data Act addresses this phenomenon with a complex and sometimes cumbersome regulatory framework. The Regulation assume that the legal status of data and the problem of its allocation can be circumvented in favour of a regulatory approach focussed on the creation of an access and management regime. However, it introduces new rights of access having a proprietary flavour, as shown by art. 4.13, according to which the use of non-personal data collected is subject to the prior conclusion of a contract. This means that without the explicit user's consent, no data can be collected, processed or transferred to third parties. Addressing the difficulty to tackle openly the nature of data, due to the different lexicons of property in the civil law and the common law legal traditions, this paper claims that new technologies call upon jurists to take a creative effort in order to contribute to face the new challenges of our contemporary society.

Key words: data, EU Data Act, legal nature of data, data property

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In ragione del loro enorme valore, spesso si ricorre al lessico proprietario per affermare che i dati appartengono o dovrebbero appartenere a qualcuno. Da un punto di vista giuridico, tuttavia, la qualificazione in termini proprietari è controversa ed equivoca, perché i dati hanno caratteri peculiari che li distinguono da altre entità, materiali o immateriali. Il presente contributo si concentra su uno dei vari modi attraverso cui vengono raccolti i dati, il cosiddetto Internet of Things (IoT), preso in considerazione dal recente EU Data Act, con disposizioni complesse e non di rado confuse. In particolare, il Regolamento presuppone che lo status giuridico dei dati e il problema della loro allocazione siano temi superabili, in favore di un approccio normativo incentrato sulla creazione di un regime di accesso e di gestione. Tuttavia, i nuovi diritti di accesso che vengono introdotti assumono contorni proprietari, come dimostra l'articolo 4.13, secondo cui l'uso di dati non personali raccolti è subordinato alla previa conclusione di un contratto. Ciò significa che senza il consenso esplicito dell'utente, nessun dato può essere raccolto, trattato o trasferito a terzi. La difficoltà di affrontare apertamente la natura dei dati ha origine nei diversi modelli di proprietà nella civil law e nella common law e il percorso svolto nel presente lavoro fa emergere che il giurista è chiamato ad uno sforzo creativo per contribuire ad affrontare le nuove sfide poste dalle nuove tecnologie.

Parole chiave: dati, EU Data Act, natura giuridica dei dati, 'proprietà' dei dati