ONLINE MARKET, BIG DATA AND PRIVACY PROTECTION

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Key-words: Big Data - social network

Category: Legal Area

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Introduction

In the era of globalization and digitalization, modern multimedia communication tools capture the attention of consumers and users influencing their choices and habits.

Social networks (facebook, twitter, linkedin, google, whatsapp, instagram) constitute the new vehicle for information and marketing: those who use it, through increasingly advanced tools and at competitive prices, use promotional slogans and socialization as compasses for orientation in the intricate forest of the market.

This new trend is not surprising: every day, wherever we are, we use the internet connection and we are able to compare prices and offers of goods and services, and even to proceed with the related purchases.

Much of the work, study, affective and daily life activities can be carried out electronically through mail, chat, browsing which, thanks to their widespread diffusion, have now replaced traditional conversations.

Social networks are generalists and specialists; the former (facebook, twitter, google)[1] are the most common means of interaction and transmission of media and messages; the second category concerns specific types of users or contents: linkedin (professionals), instagram (amateur photos), academia (researchers).

To access the related services, you must register: the user declares to accept the general conditions of use, giving consent to the processing of their personal data, which consequently are repeatedly entered into the system and stored[2].

The central role of consent in this case is enhanced by the European legislator in Regulation 2016/679 (GDPR), relating to the protection of individuals with regard to the processing of personal data, as well as the free circulation of digital data.

The Regulation replaced Directive no. 46 of 1995[3], but is the result of a broader regulatory process, started on January 28, 1981 with the Strasbourg Convention on the protection of individuals with regard to the automated processing of personal data. The reference discipline, in order to ensure an equitable distribution of powers and to remedy any information asymmetries that make the position of the interested party more vulnerable, revolves around three main figures: the data controller, the data processor and the interested. The data controller acts as a guarantor and supervisor and must be able to demonstrate that the user has given consent to the processing of their data.

Pursuant to Article 4 (11) of the GDPR, consent is understood as any manifestation of free, specific, informed and unambiguous will by which the interested party legitimizes the processing of their data. In spite of the automaticity that, from a temporal point of view, characterizes the provision of consent, the latter must constitute a considered choice: art. 7 GDPR, paragraph 3, establishes the right of revocation at any time; paragraph 4 provides for the separation between contract and consent if the execution of a contract is conditional on the provision of consent to the processing of personal data not necessary for the execution of this contract.

Given the particular context of reference, it is necessary to ask whether the manifestation of consent, sometimes expressed unconsciously, determines a real transfer of ownership over the personal data or a sort of delegation to use the data itself[4].

Depending on the chosen reading, the consequences change, not only for the legal effects produced by one and the other approach, but also for the concrete operation of the privacy regulations and to protect competition.

The thesis of the transmission of a property right on the data would seem to be supported by the provision of art. 20 of GDPR on the right to data portability[5].

The provision performs two functions: to increase the data subject's control over their data and to facilitate their circulation.

A fundamental step, which preceded the GDPR, is represented by the Charter of Fundamental Rights of the Union, whose art. 8 raises the protection of personal data to the rank of subjective right[6].

Faced with situations of undeniable aggression to the private sphere, particularly evident in the virtual world, it is necessary to enhance and enrich the content of privacy to prevent it from becoming "a mere bureaucratic burden, a piece of antiquity destined to succumb to the irresistible charm of sharing "[7].

The unstoppable advance of digital technology leads to a reflection on the ability of current regulatory systems to face the challenges offered by a constantly evolving society and to offer effective and effective protection.

Looking at the European legislation, one gets the impression of an approach detached from the consideration of data as attributes of personality, reasonably dictated by the need to reconcile the rights of the individual with market needs.

By privileging the circulatory moment of information, to the detriment of the content of the data and their representative potential, the prospects for protection and the principles of responsibility and transparency that inspire the Regulation are nullified[8].

It is necessary to combine the ideal and the patrimonial dimension, to strengthen the guarantees and offer the consumer a clearer perception of the value of their personal data[9].

Without neglecting the aim of *contributing to the realization of an area of freedom, security and justice and of an economic union, to economic and social progress, to the strengthening and convergence of economies in the internal market and to the well-being of individuals* (recital 2 of Regulation), a correct framing of the case under consideration requires the consideration of a concept of privacy in a broad sense, all-encompassing all the evocative aspects of personal identity from the oldest (confidentiality, name, image), to the most recent (oblivion)[10].

In addition to the concern for the damage to the private sphere of users of the variegated world of the internet, there is the risk that interpersonal relationships are entirely replaced by virtual ones and that the desire for connection becomes a real obsession, with inevitable consequences of isolation and pathological addiction. The technological tool makes conversations cold and aseptic by altering the authenticity of the underlying feelings.

The empathic and emotional profile is replaced through the use of algorithms and digital writing; a sort of dehumanization of man arises which must be reconsidered *not as a person alienated from technology but striving to fulfill himself in all his humanity*[11].

The current period is defined as post-modernity, an expression that seems to evoke, not only the distrust and insecurity of today's man, compared to "modern man", but also a regression, from the point qualitatively, interpersonal relationships[12].

The truth lies in the middle: the revolution triggered by the so-called digital feudalism[13] requires an exact identification of the characteristics of the phenomenon to grasp its potential and limits.

An articulated and complex reality emerges which leads to a sort of convergence between the transmission channels and the contents transmitted: a real digital market for which the urgency of a specific regulation is looming.

1. **Digital era: origins, evolution and implications**

Technological progress and modern communication tools transform the way of approaching everyday reality, depriving it of the practical, emotional and hedonistic aspects that usually characterize it[14]. To understand the impact and changes that have occurred over time, it is necessary to go back to the origins of the revolution which then favored the development of the internet and the birth of the so-called digitalization. The roots are to be found in the creation of the software industry.

The expression software (soft / light, ware / product) is used in computer science to indicate the set of intangible elements of an electronic data processing system, to distinguish it from the concept of hardware which, on the contrary, refers to the component material of the same system [15].

During the IT training era, the software was not marketed separately and 1969 should be expected for the introduction of the related licenses[16]. Since then, licenses have become the main tool for spreading software products in the mass market.

In the 1980s, the software industries began to grant subordinate contractual rights to customers in the form of license agreements; since the 90s new technologies have spread and there has been a proliferation of the internet and digital platforms.

The rise of the digital market opens the frontier to the so-called big data and raises many interpretative questions, dividing those who tend to favor the automatic aggregation and processing of data from those who instead focus on the content of the same[17].

The expression “big data” contains four fundamental characteristics: volume, speed, variety and value. The first two refer respectively to the size of the recorded and stored data and to the speed with which they are processed. The variety concerns the countless sources from which the data can be drawn. The value is the natural result to which the information collection, processing and processing operations lead. Even the behavior of each individual seems to be accelerating as a result of the rhythms imposed by multimedia tools[18].

The issue of data management by digital platforms intersects with that of the economic value of the data itself; despite of the alleged gratuitousness of the service, with internet access, consumers pay IT companies a price represented by the management of the information concerning them.

The concept of privacy therefore takes on a new value, by becoming the same an economic resource sold in exchange for a provision of services[19], which corresponds to an economic return in terms of personal information and sales of advertising space.

The collection and processing of personal data, even sensitive ones, should take place in an adequate and effective way to avoid the risk of aggression to the personal sphere and of incorrect commercial practices.

The Italian privacy legislation emphasizes the need that the processing of data does not affect the rights, freedoms and dignity of the interested party (art.1, Legislative Decree 196/2003) and is carried out only where necessary (art.3) , in a lawful and correct manner (Article 11, letter a).

The data must be stored in a form that allows the identification of the interested party for a period of time not exceeding that required to pursue the purposes for which they were collected (art.11, letter e).

These forecasts often run the risk of being disregarded: and this leads us to evaluate the possibility of integrating the privacy regulation with the competition regulation in the portion of the market in which the social networks operate.

Among other things, technological development and the increasing level of digitization presuppose the preparation, by companies, of the tools and organizational structures necessary to deal with data and information management which is not always efficient.

The need to reconcile apparently antithetical areas (privacy, competition and consumer protection) arises from the awareness that companies, in exchange for the services offered, acquire market power and are able to predict user behavior or even anticipate its behavior the choices .

The links of reflection widen in an attempt to derive from the specificity of the disciplines involved a univocal key of interpretation and uniform regulation[20].

With a view to promoting a European digital market and protecting the individual in his or her fundamental rights, Regulation 2016/679 (GDPR) moves.

The European institutions on several occasions have highlighted the need to balance the purpose of creating a single digital market and the protection of the processing of personal data and the free movement of the same[21].

In an unexplored context and exposed to various “external aggressions”, there is a greater need to intervene in a penetrating and compelling way in the interest of consumers.

Undoubtedly the digital age offers the possibility of new forms of innovation, but the discriminatory footprint it brings requires targeted interventions on several fronts, in order to guarantee the effective safeguarding of users’ privacy and to avoid anti-competitive contexts.

The reality is made even more complex by the inseparable intertwining between different areas of protection and respective control bodies, which modern interaction and exchange techniques create.

The individual sector regulations should interact in order to educate the individual, more and more often minors, to a correct and rational use of technological resources[22] taking into account the fact that not all personal data are provided directly by the subjects interested, but are sometimes extrapolated from the information disseminated on the web while browsing[23].

Without denying the advantages produced by the diffusion of the internet and the affirmation of digital communication, it is obvious that the delicacy of the underlying interests requires careful and specific regulation. The positive results in terms of reduction of space and quality of communications cannot make us lose sight of the need to guarantee the correct use of information technologies.

2. **Big data e antitrust**

The expansion of the digital economy has favored the growth of companies that own IT platforms and prompted the debate about the possible application of antitrust legislation in this sector.

The influence exerted by internet giants (Google, Facebook, Microsoft, Amazon) on market dynamics makes the reflection on the extent of the phenomenon topical.

The uncontrolled use of social networks and new technologies can lead to a real threat to regular competition.

The competitive structure leans in favor of the companies most able to collect and process users' data and information, with inevitable risks of closing the markets for less advanced companies.

The unscrupulousness that characterizes the so-called *digital era* and *big data* raises a series of questions that embrace different, but interconnected areas: confidentiality, competition and consumer protection.

The data must be treated with respect for the privacy of the individual: any restrictions on access damage the ability of competitors to compete with consequent damage to consumers who, as the only interlocutors, will have the most technologically advanced companies, but not necessarily "best ".

The use of digital can be considered from a twofold perspective: positive if the innovative aspects and economic growth connected to it are valued, negative for the repercussions on the balance of the markets and the interests of users.

By favoring the first approach, the turning point marked by modern communication tools is evident, not only in terms of the quality of the products and / or services offered, but also in terms of efficiency and effectiveness of the systems of social interaction.

Companies take into account the preferences of those who use digital platforms and, therefore, are able to satisfy their needs. Recipients of products and services, in turn, should be able to find the most convenient offers more easily.

However, the risks that could arise from the uncontrolled use of telematic tools and the dominance exercised by some means of communication cannot be overlooked.

The only viable way, to scrutinize any abusive practices, is to evaluate, case by case, taking into account not only the unfavorable effects on competition, but also the possible benefits[24] the conduct put in place by the companies suspected of illicit and avoid favoring parasitic behavior by the weakest contenders on the market.

Signs of anomalies in the functioning of competition do not necessarily arise from the holding of important positions, deservedly acquired, by the companies that are economically stronger and more difficult to emulate.

And this is where the antitrust paradox[25] is perceived: companies, whose competitive success derives from the use of greater skills and investments, risk being forced to share the fruits of their commitment with evident disincentives to improve products and services.

Most conducts likely to fall under the antitrust prohibition can complement the details of agreements, abuses or concentrations between companies[26].

The difficulty in identifying these types of offense is increased by the hybrid nature of the digital sector, which is still immature and difficult to classify, and postulates a wider conception of competition, that includes not only prices, but also innovation, quality, variety and the protection of personal data[27].

It is not yet clear how the infringements put in place on the online markets can be included in the schemes of the sector regulations on privacy and competition and which interests should be privileged in order not to frustrate the progress achieved.

The central point of the reflection is the choice of the method to follow: an autonomistic approach, aimed at a separate consideration of competition and privacy, or a combined approach, which privileges the plurioffensive nature of the personal data processing behaviors, but also the identification of the reference market and, more specifically, the consideration of a relevant data market distinct from that of online goods and services.

From the first point of view, there is no doubt that the digital world constitutes fertile ground for the perpetration of practices harmful to competition and privacy and it is important to understand whether the reference coordinates of the respective disciplines are sufficient to face abuses or should be integrated with new tools. To make the reference framework more complex is the observation that the free or negligible nature of the service provided by the users of the platforms does not reconcile with the need for antitrust intervention.

The impact of modern social interaction tools has led individual national and European authorities to a no longer postponable assessment of the extent of the phenomenon and its application consequences, opting, on the one hand, for the application of the principles and rules on competition, on the other hand, for the search for more effective and innovative enforcement criteria in view of the resolution of the most controversial aspects relating to confidentiality, the result of the forced coexistence between apparently antithetical areas (privacy and competition)[28].

In a constantly evolving society, driven by the incessant advancement of increasingly sophisticated technologies, even the sector rules no longer adequate to a complex and changing reality risk remaining a dead letter; this leads to favoring non-isolated intervention tools, which take into account the peculiarities of the institutions involved.

With regard to the market to be taken as the object of analysis (if that of data as a market distinct from that of goods and services), identification is made difficult in a little-known context such as the digital one.

To this end, it is appropriate to establish whether the data represent a mere production input or the output of the activity itself in the different markets in which the company operates and to ascertain the degree of substitutability of the data..

The only certainty is that users, by making available, knowingly or unknowingly, the information concerning them, themselves become an evaluation parameter of the market power of companies, an alternative to the traditional one based on quotas and turnover[29].

The particularity of the service provided by the users of the platforms (the entry of their personal data), not strictly economic, but susceptible to economic evaluation, allows telematic companies not only to acquire or increase their market power, but also to easily evade antitrust controls: once transmitted, the data escape from the sphere of users and the latter are not able to hinder its dissemination[30]. From this point of view, a synergistic consideration of competition and privacy appears to be the preferable solution to face and stem the disruptive impact that characterizes the activity of collecting and processing the data themselves.

3. **Binding practices and leverage theory in the digital age**

The interaction between competition and digitization in the context of the virtual market, due to the potential for transformation that characterizes it, requires special attention. The affirmation of business models, based on the collection and processing of data, has given a strategic role to leading companies in the sector, more able to recognize the preferences and habits of users, and faster in offering products and / or services satisfactory to the relative needs. Among the offenses that arouse

particular alarm, due to the repercussions in terms of competitive equilibrium, there is the attempt of the giants on the net to extend their power in adjacent markets.

The driving force of the phenomenon is usually found in the *leverage theory* or theory of *leverage*, elaborated by the North American doctrine: the company uses its market power over a given asset (the tying product) as a lever to acquire a competitive advantage on the market of a well distinct (the tied product)[31]. This leads to an alteration of the competition in the tied product market: consumers will choose the tied good to access the binding good, rather than for the best quality and / or the cheapest price[32].

The legal-economic analysis makes it possible to combine well-rooted concepts and categories in this sector with the uncertainty and gaps that characterize the online markets.

In the 1950s, Chicago School economists challenged the theoretical foundations of the doctrine of leverage, of the unlawfulness per se of joint selling and vertical integrations [33]. Regarding the theory of the decisive leverage is the intuition of the School, according to which "a monopolist could not earn additional monopoly profits in an adjacent market by leveraging into it (the" single monopoly profit theorem ")[34]

In other words, the monopolist through bundling does not increase its market power, since the amount of profits obtained in the tied product market will be deducted in equal measure to that made in the bond product market.

Tying, following the Chicago line of reasoning, is not an expedient to obtain double monopoly profits and hinder competition in the tied product market[35]. Vertical integration and the leverage effect are driven by efficiency, in terms of higher quality or lower prices, and therefore legally considered valid, as a source of benefits for consumers.

Although criticized, the Chicago School's approach is valuable and current for understanding the unfolding of antitrust offenses in the intricate digital scenario.

The theoretical insights offered, far from denying the validity of the theory of leverage, suggest a distinction, neglected in the past by the Courts, between pro and anti-competitive leverage depending, respectively, on the positive or negative effects on regular competition.

If in the context of digital platforms it appears difficult for the owners, whose behavior is subjected to antitrust scrutiny, the demonstration of efficiencies becomes relevant proof of possession of greater skills and / or the implementation of investments compared to competitors.

By applying an adequate standard of consumer welfare, which pays due importance to the justifications put forward by suspects of wrongdoing, it is not difficult to scrutinize the hypotheses likely to fall within the meshes of antitrust repression.

The idea of adopting remedies aimed at structural separation, which limits the ability of dominant platforms to hinder competition by offering additional services[36], contributes to enriching and making the reference framework more interesting.

A solution of this type, if it prevents the abusive exploitation of the dominant position by leading companies in the digital market, avoiding situations of conflict of interest with respect to competitors, undermines the conducts of positive financial leverage with the inevitable repeal of the consumer welfare standard so dear to antitrust doctrine[37].

The theoretical approach, attributable to the principle of "non-discrimination" or "platform neutrality[38], according to which platform owners should not be allowed to obtain advantages over their adjacent products, exploiting the size and prestige they enjoy in the platforms themselves, it overlooks the possibility that leveraging behavior can have positive effects for competition and sacrifices the parameter of consumer well-being, a fundamental purpose of anti-monopoly laws[39].

Recently, the European Union report on digital competition[40] highlighted how the Commission cares about the well-being of consumers and the prevention of damage to them: the pursuit of these objectives, especially in digital markets, requires a more which includes the new approach which consists in considering data protection as a quality criterion when assessing the impact of mergers on consumer welfare (para. 16 p. 42)[41].

The foregoing observations highlight the state of the art on the issues dealt with without being able to provide definitive answers that only time and the evaluation of individual concrete cases can offer. What is certain is that, even in an immature and unexplored context such as the digital one, the synergy between economics and law, very influential in recent decades for the understanding and regulation of antitrust offenses, becomes an effective tool for understanding exact scope of the institutions involved and respond to the underlying protection needs.

Conclusions

The issues addressed turn out to be even more suggestive in a moment, like the current one, of closure and social distancing for the coronavirus pandemic.

The need to contain the number of infections has made the use of digital tools not only indispensable, but also exclusive to carry out most of the work, professional, educational and commercial activities. Smart working and distance learning have represented a valid alternative to work and face-to-face teaching, despite the difficulties associated with the impossibility of equating the results.

The massive spread of the epidemic has brought the whole world to its knees: technological progress and multimedia communication tools have made it possible to alleviate damage, contain losses and reduce interpersonal distances.

In the commercial sector, the practice of proceeding with online purchases for countless categories of products and services had already been established for some time, now further rooted as a result of the COVID emergency.

Store chains with medium and high quality Italian and international brands have adopted the so-called on demand sales: through whatsapp, customers interact with a personal shopper asking for information or sending images until the purchase deed is completed. This system will be able to convert even the laziest, or less experienced, to digital shopping, and those who, due to lack of time, give up the purchases of goods that are not essential and will certainly find widespread diffusion in other commercial areas as well.

These ways of perfecting commercial relationships undoubtedly mark a new phase in the path that characterized the birth of the internet and the digital age, attracting users and influencing their preferences.

This trend must be managed and monitored to ensure the correct use of resources and protect potential buyers from abusive behavior whose consequences could reverberate on several fronts: privacy, competition, authenticity and originality of the products purchased. Buyers who, even if considered weak subjects and in a relationship of information asymmetry with producers and / or sellers, take on the role of protagonists within the reference contexts.

This leads, by shifting attention to the legal-economic side, to a rethinking in the antitrust field of the existing opinion of the Court of Justice which, in defining the abuse of a dominant position as a situation of economic power thanks to which the company is able to maintain independent behaviors also towards consumers, he neglected the importance that the latter would soon have in market dynamics[42].

With a view to complementary protection aimed at guaranteeing the right balance between the achievement of a high level of consumer protection and the promotion of the competitiveness of businesses, the EU directive 2019/770 of 20/05/2019, on the subject of contracts of digital supply and digital services, and the EU directive 2019/771 of 20/05/2019, on the subject of contracts for the sale of goods, both oriented towards maximum harmonization.

If in the economic language the market is the ideal place where the demand and supply of a good or a service meet, today, in the digital age, the market becomes the "real or virtual" place where the meeting between supply and demand and the negotiations that precede the conclusion of the deal.

It is clear that we are now facing a situation of no return: the multimedia world represents a reality and, today more than ever, in this moment of discomfort and crisis due to the COVID emergency, we realize the advantages and disadvantages. connected to the phenomenon.

Sharing preferences, passions and behaviors creates a sort of psychological dependence not only between the subjects involved in communication, but also between the "contacts" who observe, comment on and imitate the choices of behavior and purchase (the so-called social shopping).

The hope is that common sense and respect for the fundamental rights of the person will prevail and that the original role that inspired their invention will be restored to electronic instruments, that is, of aid and not a substitute for the human mind.

Given the positive effects of the digital revolution, the detrimental consequences on competition and consumer protection in general cannot be overlooked.

There remains a feeling of concern for the future: the way of acting of each of us will become impersonal and objective and in order to govern the technique, we will end up being governed by it. Achieving the maximum of goals, with the minimum use of means, becomes the only way of thinking. The progress marked by multimedia means is undoubted, but it should be diligently used so as not to sacrifice the individual as a person.

In this coronavirus season that seems not to end, the perplexities are heightened. The use of IT and digital tools becomes the exclusive vehicle for information and communication with the inevitable aggravation of situations of dependence, marginalization and isolation.

It is premature to ask whether the current regulations will be able to offer adequate protection that embraces privacy, competition and the interests of consumers, a question destined to animate the debate for a long time to come, but the certain data from which to start is based on the idea of protection. of personal data as a right and natural development of the right to privacy.

1 Facebook and Twitter represent the two major social networks and, despite the possible simultaneous use, they have different functions. Facebook has a wider operating scope, as it constitutes a more conventional medium and allows you to share more information, photos, updates. Twitter has a more limited application and is an ideal platform for information. Google is the most famous search engine, whose registration dates back to 1997, since then it has acquired such importance as to favor the introduction, in common language, of expressions deriving from the root of the term (for example "googlare" to indicate the web browsing).

[2] Registration represents the modern expression of consent to data processing. Most of the personal data collected by social networks pass overseas in order to be processed and / or stored by the parent

company: Facebook currently uses four data centers in the United States and one in Sweden; Twitter, on the other hand, takes advantage of already existing data centers by paying space leasing quotas to the managers, who are also all operating within the United States.

[3] The comparison between the wording of art. 1 of Directive 95/46, which provided that States should "*protect the fundamental rights and freedoms of natural persons, and in particular their right to privacy with respect to the processing of personal data*", and the corresponding Article 1, paragraph 2 of the Regulation, which places among its various objectives the need to protect "*the fundamental rights and freedoms of natural persons and in particular their right to the protection of personal data*" The omitted reference to the concept of confidentiality, in the new formulation, seems to create a clear gap between the need for data protection and respect for privacy.

4 See N Zorzi Galgano, *Persona e mercato dei dati, Riflessioni sul GDPR* (Cedam 2019).

5 The law clarifies that "*The data subject shall have the right to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance from the controller to which the personal data have been provided, where: (a) the processing is based on consent pursuant to point (a) of Article 6(1) or point (a) of Article 9(2) or on a contract pursuant to point (b) of Article 6(1); and (b) the processing is carried out by automated means*"(art. 20 par. 1 GDRP). See A Maceratini, 'Privacy e informazione nell'era dei Big Data', in *Tigor: rivista di scienze della comunicazione e di argomentazione giuridica* - A. XI (2019) n. 2.

[6] The text of the Charter was signed in Nice on 7 December 2000 and re-proclaimed on 12 December 2007, in view of the signing of the Lisbon Treaty, in Strasbourg by the European Parliament, the Council and the Commission (OJEU 14 December 2007, no C. 303). Pursuant to art. 6 paragraph 1, first paragraph, of the Treaty, the Charter of Fundamental Rights of the European Union has, since 2007, the same legal value as the Treaties.

[7] See A Thiene, 'Segretezza e riappropriazione di informazioni di carattere personale: riserbo e oblio nel nuovo regolamento europeo', in *Nuove leggi civ. comm.*, 2017, 410; M Bocchiola, *Privacy. Filosofia e politica di un concetto inesistente*(Luiss University Press 2014), 149.

[8] See G Giampiccolo, 'La tutela giuridica della persona umana e il c.d. diritto alla riservatezza', in *Riv. trim. dir e proc. civ.*, 1958, 458; P Rescigno, 'Personalità (diritti della)', in *Enc. giur. Treccani*, XIII, 1990, 5; P Perlingieri, *La personalità umana nell'ordinamento giuridico* (Jovene 1972), 174; C Castronovo, 'Situazioni soggettive e tutela nella legge sul trattamento dei dati personali', in *Eur. dir. priv.*,1992, 653; F Pizzetti, *Privacy e il diritto europeo alla protezione dei dati personali. Il*

Regolamento europeo 2016/679 (Giappichelli 2016); S Sica, V D'Antonio, GM Riccio (a cura di), *La nuova disciplina europea della privacy* (Cedam 2016).

[9] See A Thiene, 'Segretezza e riappropriazione' (n 7) 415. On the contrary, see A Ottolia, 'Privacy e social networks: profili evolutivi della tutela dei dati personali', in *AIDA*, 2011, 363-371, according to which it is necessary to keep separate the asset profiles and personal aspects.

[10] See G Finocchiaro, 'Il diritto all'oblio nel quadro dei diritti della personalità', in *Dir. inf.*, 2014, 591.

[11] See R Pagano, 'Pedagogia e Tecnica. Coincidentia oppositorum', in C Laneve, R Pagano (eds), *La pedagogia nell'era della tecnica. Derive e nuovi orizzonti* (Pensa MultiMedia 2006), 41.

[12] See N Bobbio, *L'età dei diritti* (Einaudi 1990), 263. The author clarifies that we have entered the so-called post-modern era, characterized by the enormous, vertiginous and irreversible progress of the technological and consequently also technocratic transformation of the world.

[13] A Giannaccari, 'La storia dei Big Data, tra riflessioni teoriche e primi casi applicativi', in *Mercato Concorrenza e Regole*, 2, 2017, 313.

[14] On the role of new technologies and the Internet see G Sartor, 'Prefazione', in G Scorza, *Il diritto dei consumatori e della concorrenza in Internet* (Cedam 2006), 1.

15 It is customary to attribute the introduction of the term "software" to John Wilder Tukey, a famous American statistician, who first used it in 1957. Only in 1970 would the relative concept appear in the popular lexicon, but together with that of hardware. It will be necessary to wait some time before a separate consideration.

16 The birth of separate software licenses is linked to the antitrust lawsuit filed by the Department of Justice against IBM, the oldest US company in the IT sector, accused of anti-competitive conduct for the combined marketing of software and hardware.

[17] A Giannaccari, 'La storia dei Big Data' (n 13) 309. See also F Di Porto, 'La rivoluzione Big Data. Un'introduzione', in *Concorrenza e mercato*, 23, 2016, 5-14; AM Gambino, 'Diritti fondamentali e Cybersecurity', in M Bianca, A Gambino, R Messinetti (eds), *Libertà di manifestazione del pensiero e diritti fondamentali* (Giuffrè 2016), 21-30; M Delmastro, A Nicita, *Big data, Come stanno cambiando il nostro mondo* (Il Mulino 2019).

[18] G Pitruzzella, 'Big data, competition and privacy: a look from the antitrust perspective', in *Concorrenza e mercato*, 2016, 15-28.

[19] Privacy in the digital market includes not only the confidentiality of the individual, but also the protection of personal data concerning him. See S Palanza, 'Internet of things, big data and privacy: the triad of the future', in *IAI, Documents from Istituto Affari Internazionali*, 2016, 9.

[20] The Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 established the European electronic communications code, placing itself within the framework of the verification of the adequacy of the regulation (Regulatory Fitness-REFIT), which includes four directives, i.e. directives 2002/19 EC, 2002/20 EC, 2002/21 EC and 2002/22 EC, and regulation (EC) n. 1211/2009 of the European Parliament and of the Council. The directive conveys the regulation of the telecommunications, media and information technology sectors in a single European code, dedicating itself to the regulation of electronic communications networks and services, but not the contents of the same.

[21] The European Commission has issued a Communication "Towards a common European data space" proposing a package of measures, "as an essential step towards a common data space in the EU, a seamless digital area, the scale of which allows development of new data-based products and services". COM (2018) 232, April 25, 2018.

22 See Italian law 29 maggio 2017, n. 71 "Disposizioni a tutela dei minori per la prevenzione ed il contrasto del fenomeno del cyber bullismo". The legislation aims "*to combat the phenomenon of cyber bullying in all its manifestations, with preventive actions and with a strategy of attention, protection and education towards the minors involved, both in the position of the victims and in that of those responsible of offenses, ensuring the implementation of interventions without distinction of age in educational institutions*". In reality, worries and discomforts have an even wider scope that can also cross over into other types of criminally relevant offenses.

23 Personal data represent the resource on which the digital economy is based and the object of the right to data protection is recognized by Article 8 of the Charter of Fundamental Rights of the European Union. With a view to creating a European digital single market, Reg. (EU) 2016/679 of 27 April 2016 is placed on the protection of individuals with regard to the processing of personal data, as well as on the free movement of such data and the Reg (EU) 2014/910 of the European Parliament and of the Council of 23 July 2014, on electronic identification and trust services for electronic transactions in the internal market.

[24] See SC Salop, 'Exclusionary Conduct, Effect on Consumers, and the Flawed Profit-Sacrifice Standard, supra this issue' (2006) 73 Antitrust L.J. 311. See also G.J. Werden, 'Identifying Exclusionary Conduct Under Section 2: The "No Economic Sense" Test, supra this issue' (2006) 73 Antitrust L.J. 413.

[25] See R.H. Bork, *The Antitrust paradox: A Policy at War with Itself* (Basic Books 1978).

[26] It is useful to report the Google/DoubleClick case on 11 March 2008 DoubleClick, a company that provides internet services was acquired by Google, the most important search engine. The

substantial amount of personal data held by the two companies has raised particular alarms with an invitation to the competent institutions, the Federal Trade Commission and the European Commission, to assess the privacy risks. Both bodies approved the transaction, flying over the possible interactions between Big data and privacy which, in reality, represented the most significant aspect of the controversy. See Google/DoubleClick, FTC File No. 071-0170, *Statement of federal Trade Commission* (Dec. 20, 2007), available at http//www.ftc.gov/os/caselist/0710170/071220 statement.pdf.; Case COMP/M.4731 - *Google/DoubleClick* (OJ 2008 C184/10). Another noteworthy story involved the two main social network Facebook e Whatsapp. platforms. In 2014 Facebook acquired Whatsapp for an amount of about 19 billion dollars. The doubts put forward in this hypothesis concerned the fate of personal information, until then correctly managed by Whatsapp, and now in the hands of a company with different powers and potential. In this case too, the FTC and the Commission authorized the merger without going into detail on the merits of the underlying issues. A few years later, Facebook's note to the Commission of "admission of guilt" about the incorrectness of the information transmitted to explain the pairing of the user profiles of the two platforms, led to the imposition of two fines of € 55 million each. See *Complaint, Request for Investigation, Injunction, and Other Relief, Electronic Privacy Information Center, Center for Digital Democray, In re Whatsapp, Inc.* (March 6, 2014), available at http //www.centerfordigitaldemocracy.org/sites/default/files/Whatsapp%20 Complaint.pdf.; Case COMP/M. 7217, *Facebook/ Whatsapp*, OJ C(2014) 7239 final.

[27] See A Giannaccari, 'La storia dei Big Data' (13) 322.

[28] See reports: *Big data and differential pricing*, by The Executive Office of the President of the US, February 2015, available at http://obamawhitehouse.archive.gov; *UK Competition & Markets Authority Report* (CMA 38, June 2015), *The commercial use of consumer data*, in www.gov.uk; *Big Risks, Big Opportunities: the Intersection of Big Data and Civil Rights*, White House Report, 4th May 2016; US Federal Trade Commission Report (January 2016), *Big Data. A tool for Iclusion or Exclusion?*, at www.ftc.gov.

[29] See M Meriani, 'Digital platform and spectrum of data protection in competition law analyses' (2017) 38 (2) ECLR 89.

[30] Four types of activities can be distinguished that are likely to cause damage to privacy: 1) collection of information, 2) processing of the same to derive useful insights, 3) dissemination of information and insights themselves, 4) influence of interested parties based on information and to the insights gained. See DJ Solove, 'A Taxanomy of Privacy' (2006) 154 U. Pa. L. Rev. 477.

[31] For a description of the phenomenon, albeit with critical insights, see RA Posner, 'Exclusionary Practices and the Antitrust Laws', 41 University of Chicago Law Review 508 (1974): "*People used to regard tying as a method by which a firm having a monopoly in one market (for example computers) could obtain a monopoly of a second product (such as computer punch cards) by requiring all purchasers of the first product also to buy the second from it*".

[32]It has been demonstrated - and paradoxically by a Chicago author, Ward Bowman - that leverage is possible when the two goods (or the combination of goods and services) are used in varying proportions. When, however, used goods in fixed proportions are sold for free or even, predatory, below cost, it is inevitable that the antitrust analysis profiles are examined in a dynamic perspective on which the (static) price theory can say little or almost nothing. With this in mind, the repression of the tying of the Windows operating system to the Internet Explorer program for web browsing in the famous Microsoft case was deemed illegal monopolization on both sides of the Atlantic (*United States v. Microsoft Corp*, 147 F.3d 935, D.C. Cir. 1998).

[33] Throughout the 20th century, the Supreme Court held vertical practices, such as bundling agreements per se, on the assumption that the monopolist, in a given market, was using the tying strategy to extend its power from the binding product market to the market. related product market. See *Carbice Corp. v. American Patents Development Corp.*, 283 U.S. 27 (1931).

[34] H Hovenkamp, *The Antitrust Enterprise: Principle and Execution* (Harvard University Press 2008) 34; A Director - EH Levi, *Law and the Future: Trade Regulation* (1956) 51 Nw. U. L. Rev. 281.

[35] See A Cucinotta, 'The antimonopoly regime of the tying clauses', in *Quadrimestre*, 1993, 90. The author clarifies whether "*the tie-in cannot function as a monopoly creating device, this deduction does not seem to authorize definitive conclusions about the absolute inadmissibility of the idea of leverage*". In fact, in the case of complementary products used jointly in variable proportions, leverage actually operates and, therefore, the monopoly power increases and determines the realization of higher profits than those that would derive from a single product.

[36] See LM Khan, 'Sources of Tech Platform Power' (2018) 2 Geo. L. Tech. Rev. 325, 332.

[37] See MH Riordan, *Competitive Effects of Vertical Integration*, in *Handbook of Antitrust Economics* 48 (Paolo Buccirossi ed., 2008); *Global Antitrust Institute, Competition and Consumer Protections in the 21st Century, Vertical Mergers*: Hearing Before the Fed. Trade Comm'n (2018).

[38] See K Caves, H Singer, 'When the Econometrician Shrugged: Identifying and Plugging Gaps in the Consumer Welfare Standard' (2019) 26 Geo. Mason L. Rev.; FA Pasquale, 'Internet Nondiscrimination Principles: Commercial Ethics for Carriers and Search Engines' (2008) U. Chi.

Legal F. 263; FA Pasquale, 'Dominant Search Engines: An Essential Cultural & Political Facility', in B Szoka, A Marcus (eds.), *The Next Digital Decade: Essays on the Future of the Internet*(TechFreedom 2010), 399.

[39] Applying the principle of non-discrimination to platform owners would be prevented from offering users the advantages of new features in the platform code. See PF Todd, 'Digital Platform and the Leverage Problem' (2019) 98 Nebraska Law Review 486.

[40] Competition policy report - annual report 2019 (2019/2131 INI). See also J Cremer, YA de Montjoye and H Schweitzer, *Competition Policy for the Digital Era*, Eur. Comm'n, 1, 42 (2019); Stigler Center, *Committee for the Study of Digital Platforms, Market Structure and Antitrust Subcomm Committee*, Report 77 (2019).

[41] The report assumes the merger between Facebook and Whatsapp as an example, suggesting that the Commission request a prior informal declaration for the concentrations that are concluded within the markets.

[42] Corte giust., 13 febbraio 1979, C-85/76, *Hoffmann-La Roche & Co.*, in *Racc.* 1979, 461.