Data as Tradeable Commodity and New Measures for their Protection

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Abstract

Information, particularly important, significant and relevant information, as illustrated by current Big Data or Wikileaks and Prism or more recently Tempora, is today's 'digital gold'. From an economic perspective it is therefore relevant to know whether and what kind of data content can be protected. The key question to be answered is therefore whether data can be recognised in law as 'protectable rights'. In the digital world, data are in fact an important 'res intra commercium', namely tradeable goods, the legal protection of which even today remains the subject of considerable debate.

More recently, the problem of deleting data in the internet and the 'right to be forgotten' has been discussed in connection with search engines and social networks, such as Facebook, Instagram or – most recently – Google. Such discussion now informs the background of impending EU regulations for the general protection of data.

A. Data as tradeable commodity

I. The role of information in contemporary society

The collection and transmission of information is currently practiced in all industrialized countries.[1] The most relevant operative applications in this sector are Databanks (eg Big Data),[2] files, especially those which have not only merely the ability to organize

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data but also which elaborate data: by combining and selecting information in accordance with different criteria and requirements, these files aim to produce 'final information',[3] which can be utilised in the market for entirely different purposes.[4]

The concept of information connotes not only a result but also a relationship between the giver and recipient of the information.[5] Thanks to the concept of information it is also possible to define the informative content as well as its communication (the so called 'informative relationship' between two or more parties). In practice, information is the subject of contractual relationships[6] even if sometimes such information is only treated as a 'good' if connected to the provision of material support services.[7]

[1] In relation to the fundamentals of the information economy, cf G.I. Stigler, 'The Economics of Information' 69 *Journal of Political Economy*, 213 (1962); E. Mackaay, *Law and Economics for Civil Law Systems* (Cheltenham: Edward Elgar Publishing Ltd., 2013) 300; R. Van den Bergh and M. Lehmann, 'Informationsökonomie und Verbraucherschutz im Wettbewerbs- und Warenzeichenrecht' *Gewerblicher Rechtsschutz und Urheberrecht – Internationaler Teil*, 588 (1992).

[2] Cf *Der Spiegel* 20/2013, 65; *FAS* 9 June 2013, 1, 10; V. Mayer-Schönberger and C. Cukier, *Big Data: A Revolution That Will Transform How We Live, Work and Think* (New York: Houghton Miffling Harcout, 2013) *passim*; T. Weichert, 'Big Data und Datenschutz' *Zeitschrift für Datenschutz*, 251 (2013); J. Wolf, 'Der rechtliche Nebel der deutsch-amerikanischen "NSA-Abhöraffäre"' *Juristenzeitung*, 1039 (2013); C. Zieger and N. Smirra, 'Fallstricke bei Big Data-Anwendungen – Rechtliche Gesichtspunkte bei der Analyse fremder Datenbestände' *Multimedia und Recht*, 418 (2013). On the question of 'ownership' cf also J. Schneider, *Handbuch des EDV-Rechts* (Köln: Otto Schmidt Verlag, 4th ed, 2008) 550; T. Hoeren, 'Dateneigentum – Versuch einer Anwendung von § 303a StGB im Zivilrecht' *Multimedia und Recht*, 486 (2013).

[3] Regarding the so called 'informazione risultato', see P. Catala, 'Ebauche d'une théorie juridique de l'information' *Revue de droit prospectif*, 24 (1983).

[4] Cf P. Perlingieri, 'L'informazione come bene giuridico', in P. Perlingieri ed, *Il diritto dei contratti fra persona e mercato* (Napoli: Edizioni Scientifiche Italiane, 2003) 353.

[5] V. Menesini, 'Il problema giuridico dell'informazione' *Il diritto d'autore*, 438 (1983); regarding the means of information transmission, see S. Lepri, *Le macchine dell'informazione* (Milano: ETAS Libri, 1982) 147; P. Catala, n 3 above, 19; R. De Meo, 'Autodeterminazione e consenso nella profilazione dei dati personali' *Diritto dell'informazione e dell'informatica*, 587 (2013).

[6] S. Rodotà, *Elaboratori elettronici e controllo sociale* (Bologna: Il Mulino, 1973) 20.

[7] P. Barile and S. Grassi, 'Informazione (libertà di)', *Novissimo Digesto Italiano*

Several agreements have information as their subject, especially when it is transmitted in non-magnetic form.[8] The transfer of knowledge contained in data can take place with or without the transfer of exclusive rights or with or without temporal or local limitations on its disposition. It is also possible to set limits on the ability to transfer data to third parties.

II. Data as a protectable commodity and right

Recognition of a need for the normative protection of information as a 'good' is considerably widespread in Italian legal culture.[9] Indeed, information is increasingly the subject of commercial negotiations.

The question as to whether information can be treated as a 'good' as well as whether information can be the subject of a contractual obligation and the means by which such information can be protected is the subject of intense debate in the Italian literature.[10] Information can be considered by the legal system differently depending on the situation. In our opinion, an express legal provision is not necessary to support the cathegorization of information as a 'good'. Some scholars – even if they acknowledge that information can be the subject of contractual obligations – dismiss the notion that information can be treated as a 'good'.

(Torino: Utet, 1983) App. IV, 214. Cf U. De Siervo, 'Investigazione privata' in *Enciclopedia del diritto* (Milano: Giuffrè, 1972) XXII, 678; G. Giacobbe, 'La responsabilità civile per la gestione di banche dati', in V. Zeno-Zencovich ed, *Le banche dati in Italia. Realtà normative e progetti di regolamentazione* (Napoli: Jovene, 1985) 130.

[8] S. Schaff, 'La nozione di informazione e la sua rilevanza giuridica' *Diritto dell'informazione e dell'informatica*, 450 (1987), considers that information 'can be used billions of times, can lose its economic value [...] or its practical value (become obsolete), but nonetheless remain usable'.

[9] Cf ibid 452; A.M. Sandulli, 'La libertà d'informazione', in A.M. Sandulli ed, *Problemi giuridici dell'informazione: atti del XXVIII. Convegno nazionale di studio: Roma, 9-11 dicembre 1977*, (Milano: Giuffrè, 1977) 2; P. Perlingieri, n 4 above, 351, which emphasises that the concrete value of the information results from its concrete role in the social dynamics.

[10] Cf V. Zeno-Zencovich, 'Cosa'*, Digesto delle discipline privatistiche. Sezione civile* (Torino: Utet, 1989) IV, 453.

Information can be protected only in an indirect way: namely as a consequence of the protection of much wider interests (eg professional secrets, trade secrets, privacy secrets).[11] The main reason given for not treating information as a good is based on the conviction that the concept of 'good' is inherently connected to the notion of exclusive use.[12]

In contrast to the abovementioned opinion, it is contended in other literature that the concept of a 'good' presupposes something which is capable of being the 'subject of rights' (Art 810 of the Italian Civil Code)[13] and that such rights are not necessarily exclusive, as is typically the case with proprietary rights.[14] In this regard, a remarkable effort has been made to adapt the traditional concept of a 'good' in so far as it forms the subject of a contract, especially in cases where the subject of the contract is an intangible good such as a software, which previously had not been adequately categorized.[15] Italian jurisprudence is on the other hand certainly more cautious in extending the categories of 'goods' to new subject matter emerging from social developments.[16]

In our opinion, the above illustrated development as well as the wide formulation of Art 810, Civil Code allows information to be included within the scope of the article. In any case, the use of

[11] Ibid 453.

[12] Ibid 455, at n 102; D. Messinetti, *Oggettività giuridica delle cose incorporali* (Milano: Giuffrè, 1970) 36.

[13] Cf Art 810 Codice Civile: '*Sono beni le cose che possono formare oggetto di diritti*'.

[14] Cf S. Pugliatti, 'Beni (teoria gen.)', *Enciclopedia del diritto* (Milano: Giuffrè, 1959) V, 173, who underlined that 'the Italian *Codice civile* of 1865 defined the concept of good referring to the subjective patrimonial right par excellence: the property; but it has already been mentioned that such reference doesn't exclude other rights'; see also A. Iannelli, *Stato della persona e atti dello stato civile* (Napoli: Edizioni Scientifiche Italiane, 1984) 62.

[15] P. Perlingieri, *Il diritto civile nella legalità costituzionale secondo il sistema italo-comunitario delle fonti* (Napoli: Edizioni Scientifiche Italiane, 3rd ed, 2006) 723; M. Giorgianni, 'Il diritto privato e i suoi attuali confini' *Rivista trimestrale di diritto e procedura civile*, 391 (1961). Cf *amplius* P. D'Addino Serravalle, 'Article 810 codice civile', in *Codice civile annotato con la dottrina e la giurisprudenza*, G. Perlingieri ed (Napoli: Edizioni Scientifiche Italiane, 3rd ed, 2010) vol III, 7.

[16] See eg Corte di Cassazione 20 January 1992 no 659, *Giurisprudenza italiana*, I, 2126 (1992) wich refused to qualify as good the *know how*; cf Corte di Cassazione

information doesn't necessarily require exclusive utilization. It has already been made clear in relation to intangible goods, that they can be used by a plurality of subjects.[17] Information today is relevant to the person entitled to its use because of the uses that it can be put to. Its particular characteristic consists not necessarily in it being exclusive but rather in its ability to satisfy the interest of more than one subject.[18]

According to German law, it is also indisputable that data are not 'things' within the meaning of the §§ 90 ff of the German *Bürgerliches Gesetzbuch* (*BGB*). They are, however, also not legal rights, and therefore do not fall within the classic civil law notion of a 'subject'; from a sales law point of view, they could, however, be treated as 'other subjects' as defined in § 453 para 1, Alt. 2 of the *BGB*, on the basis that the leading authorities have already been willing to recognise software as such.[19] Moreover, the German Imperial Court had already held in 1914 that the delivery of electrical energy was subject to sales law.[20]

In any case, the categorization of information as a 'good' is necessary in order to recognise its social significance and utilisation value. On the other hand, an express legislative provision is ultimately not necessary to be able to define information as a 'good'.[21]

III. The Directive Consumer Rights

For the first time in EU law there are now provisions which expressly protect data as such and give special treatment to the commercial use of data in sales law. Directive 2011/83/EU in

3 December 1984 no 6339, *Nuova giurisprudenza civile commentata*, I, 554 (1985), which considered 'goods' the television channels.

[17] D. Messinetti, 'Beni immateriali 1) Diritto privato', *Enciclopedia giuridica* (Roma: Treccani, 1988) V, 5.

[18] Ibid 7.

[19] W. Weidenkaff, 'sub § 453 BGB', Rn 8, *Palandt Kommentar zum BGB* (München: C.H. Beck Verlag, 73nd ed, 2014), 709.

[20] *Entscheidungen des Reichsgerichts in Zivilsachen*, 86, 12, 10 November 1914.

[21] P. Perlingieri, n 4 above, 348.

relation to the rights of the consumer[22] expressly protects 'digital content' which is defined in Art 2, no 11 (Definitions) as 'data which are produced and supplied in digital form'. Pursuant to Art 9 and Art 16 (m) of the Directive, consumers are also precluded from exercising their usual withdrawal rights where digital content is supplied on-line pursuant to long distance and off-premises

[22] Directive 2011/83/EU of 25 October 2011, Official Journal EU 3 L 304, 64 on Consumer Rights. About the directive 2011/83/EU, see in the Italian literature eg G. D'Amico, 'Direttiva sui diritti dei consumatori e Regolamento sul Diritto comune europeo della vendita: quale strategia dell'Unione europea in materia di armonizzazione?' *I Contratti*, 611 (2012); G. De Cristofaro, 'La Direttiva 2011/83/UE del 25 ottobre 2011 sui 'diritti dei consumatori': l'ambito di applicazione e la disciplina degli obblighi informativi precontrattuali', in A. D'Angelo and V. Roppo eds, *Annuario del contratto 2011* (Torino: Giappichelli, 2012) 30; S. Mazzamuto, 'La nuova direttiva sui diritti dei consumatori' *Europa e diritto privato*, 861 (2011). Cf for the Italian implementation, decreto legislativo 21 February 2014 no 21 'Attuazione della direttiva 2011/83/UE sui diritti dei consumatori, recante modifica delle direttive 93/13/CEE e 1999/44/CE e che abroga le direttive 85/577/CEE e 97/7/CE' (Gazzetta Ufficiale Serie Generale 11 March 2014 no 58), available at http://www.gazzettaufficiale.it/eli/id/2014/3/11/14G00033/sg (the explanatory note to the draft of the implementation provisions is available at http://documenti.camera.it/apps/nuovosito/attigoverno/Schedalavori/getTesto.ashx?file=0059_F001.pdf&leg=XVII): in this regard see eg S. Pagliantini, 'La riforma del codice del consumo ai sensi del d.lgs. 21/2014: una rivisitazione (con effetto paralizzante per i consumatori e le imprese?)' *I Contratti*, 796 (2014); G. De Cristofaro, 'Il recepimento della direttiva 2011/83/UE nell'ordinamento italiano (il d.lgs. 21 febbraio 2014, n. 21, di riforma del codice del consumo)' *Le Nuove leggi civili commentate*, forthcoming (2015); A. De Franceschi, 'Transposition of the consumer rights directive – Italy' *Journal of European Consumer and Market Law*, 123 (2014). Cf in addition the German implementation law 'Gesetz zur Umseztung der Verbraucherrechterichtlinie und zur Änderung des Gesetzes zur Regelung der Wohnungsvermittlung', of 20 September 2013, Bundesgesetzblatt I, 364, 2, available at the website of the German Federal Ministry of Justice and Consumer Protection (http://www.bmjv.de/SharedDocs/Downloads/DE/pdfs/Gesetze/BGBl_Verbraucherrechterichtlinie.pdf?_blob= publication File): for an overview of the new provisions see C. Busch, 'Transposition of the consumer rights directive – Germany' *Journal of European Consumer and Market Law*, 119 (2014); C. Wendehorst, 'Das neue Gesetz zur Umsetzung der Verbraucherrechterichtlinie' *Neue Juristische Wochenschrift*, 577 (2014), K. Tonner, 'Das Gesetz zur Umsetzung der Verbraucherrechterichtlinie – unionsrechtlicher Hintergrund und Überblick' *Verbraucher und Recht*, 443 (2013); M. Schmidt-Kessel, 'Verträge über digitale Inhalte – Einordnung und Verbraucherschutz' *Kommunikation und Recht*, 475 (2014).

contracts.[23] Digital contents are also defined in Recital 19 as follows: 'data which are produced and supplied in digital form, such as computer programs, applications, games, music, videos or texts, irrespective of whether they are accessed through downloading or streaming, from a tangible medium or through any other means'.[24]

IV. The WIPO Copyright Treaty (WCT)

By referring to a 'tangible medium', which excludes off-line supply, the above mentioned EU Directive finds itself in good company with the WCT of 20 December 1996,[25] to which 90 States are signatories. The doctrine of exhaustion under US copyright law also assumes that para 109 of the Copyright Act deals with tangible copies, which can furthermore be contractually more comprehensively dealt with.

The above follows because the agreed statements in relation to Articles 1, 6 and 7 WCT, although only relevant to content protected by copyright law, also refer to data which are able to be commercialised in tangible form, for example, on CD-ROM's or DVD's. It is true that the agreed statements in Art 1, para 4 of the WCT (Relationship to the Berne Convention, as amended on 28

[23] C. Perlingieri, 'La protezione del cyberconsumatore secondo la direttiva 2011/83/UE' *Le Corti Salernitane*, 526 (2012); M. Lehmann, 'E-Commerce in der EU und die neue Richtlinie über die Rechte der Verbraucher' *Computer und Recht*, 261 (2012); A. De Franceschi, 'Informationspflichten und "formale Anforderungen" im Europäischen E-Commerce', *Gewerblicher Rechtsschutz und Urheberrecht – Internationaler Teil*, 865 (2013).

[24] Recital 19 of Directive 2011/83/UE specifies also that: 'Similarly to contracts for the supply of water, gas or electricity [...] contracts for digital content which is not supplied on a tangible medium should be classified, for the purposes of this Directive, neither as sales contracts, nor as service contracts. For such contracts, the consumer should have the right of withdrawal unless he has consented to the beginning of the performance of the contract during the withdrawal period and has acknowledged that he will consequently lose the right to withdraw from the contract'. For the details of this withdrawal right, cf M. Lehmann, n 23 above, 263; R. Schulze and J. Morgan, 'The Right of Withdrawal', in G. Dannemann and S. Vogenauer eds, *The Common European Sales Law in Context* (Oxford: Oxford University Press, 2013) 294.

[25] See http://www.wipo.int/treaties/en/ip/wct/ (last visited 20 January 2015).

September, 1979)[26] expressly provide that the reproduction right as set out in Art 9 of the Berne Convention, and the exceptions permitted thereunder, 'fully apply in the digital environment, in particular to the use of works in digital form'. The agreed statements, however, make it clear in relation to Art 6 (Right of distribution) and Art 7 (Right of rental) that the expressions 'copies' and 'original and copies' as used in these articles refer exclusively to fixed copies, 'that can be put into circulation as tangible objects'. It needs to be borne in mind that the WCT was established in 1996: in other words, at a time when neither 'streaming' nor 'cloud computing' were discussion items. The same applies to the Directive on the harmonisation of certain aspects of copyright and related rights in the information society ('Info-Directive')[27] which was enacted as European law by agreement under the WCT. In this respect it is appropriate to also refer to Recital no 33 of the Database Directive,[28] wherein the legal doctrine of exhaustion as understood at the time was also applied to the sale of data on a tangible medium: '... the question of exhaustion of the right of distribution does not arise in the case of on-line databases, which come within the field of provision of services [...] unlike CD-ROM or CD-i, where the intellectual property is incorporated in a material medium, namely an item of goods, every on-line services is in fact an act which will have to be subject to authorization where the copyright so provides'. Under European law at that time every on-line activity was consequently classified as a service.[29]

[26] For the English version see http://www.wipo.int/treaties/en/ip/berne/trtdocs_wo001.html (last visited 20 January 2015).

[27] Directive 2001/29/EC of 22 May 2001, Official Journal L6, 71 of 10 January 2002; cf in addition S. von Lewinski, in M.M. Walter ed, *Europäisches Urheberrecht* (Wien-New York: Springer, 2001) 689, 699.

[28] Directive 1996/9/EC of 11 March 1996 on the legal protection of databases, Official Journal EC 77/20 of 27 March 1996.

[29] Cf instead others: J. Reinbothe, 'Europäisches Urheberrecht und Electronic Commerce', in M. Lehmann ed, *Electronic Business in Europa* (München: C.H. Beck, 2002) 367, 386. See also M. Schmidt-Kessel, L. Young, S. Benninghof, C. Langhanke and G. Russek, 'Should the Consumer Rights Directive apply to digital content?' *Zeitschrift für Gemeinschaftsprivatrecht*, 10 (2011).

V. The draft Common European Sales Law (CESL)

In comparison, data are handled in a materially more up to date and technologically oriented manner in the new draft CESL.[30] Digital content is defined in Art 2(j) of the CESL as 'data which are produced and supplied in digital form, whether or not according to the buyer's specifications, including video, audio, picture or written digital content, digital games, software and digital content which makes it possible to personalise existing hardware or software…'.

It is significant that, pursuant to Art 5(b) of the draft CESL, digital data are fundamentally put on the same footing as any other object that might be purchased, irrespective of whether they are delivered on-line or off-line or made available for downloading. The result is that, in cross-border EU commercial transactions, digital data are treated as tradeable goods and legally protectable under sales law in the same manner as other goods.

This also applies to laws relating to interference in the performance of obligations, as illustrated by Articles 106-122 (Buyer's remedies) of the CESL. Consistent therewith are also the new Art 59, para 1, lit. o) of the Italian Codice del consumo[31] as well

[30] COM (2011) 635 final, backed by the European Parliament on 26 February 2014: see http://www.europarl.europa.eu/sides/getDoc.do?type=TA&language=EN&reference=P7-TA-2014-0159. Cf M.B.M. Loos, 'The regulation of digital content B2C contracts in CESL' *Journal of European Consumer and Market Law*, 146 (2014); B. Zahn, 'Die Anwendbarkeit des Gemeinsamen Europäischen Kaufrechts auf Verträge über digitale Inhalte' *Zeitschrift für Europäisches Privatrecht*, 82 (2014); M. Lehmann, n 23 above, 262; M.B.M. Loos, N. Helberger, L. Guibault and C. Mak, 'The regulation of digital content contracts in the Optional Instrument of contract law' *European Review of Private Law*, 729 (2011); D. Staudenmayer, 'Der Kommissionsvorschlag für eine Verordnung zum Gemeinsamen Europäischen Kaufrecht' *Neue Juristische Wochenschrift*, 3491 (2011); M. Basile, 'Un diritto europeo della vendita come secondo regime a carattere facoltativo?' *Giustizia civile*, 75 (2013). With specific reference to E-Commerce, see eg T. Haug, 'Gemeinsames Europäisches Kaufrecht – Neue Chancen für Mittelstand und E-Commerce' *Kommunikation Recht*, 1 (2012). See also Europe Economics, *Digital content services for consumers: assessment of problems experienced by consumers (Lot 1), Report 4: Final Report*, 74 (2011); this report is available at http://ec.europa.eu/justice/consumer-marketing/files/empirical_report_final_-_2011-06-15.pdf (last visited 20 January 2015).

[31] See new Art 59, para 1, lit. o), *Codice del Consumo*: 'The withdrawal right

as § 356(5) of the German *BGB*,[32] which both implement the Directive on consumer rights.

Accordingly and despite their technical nature, data are to be treated as commercial goods and subject in every way to sales law, irrespective of whether in the course of trade they are embodied on a tangible medium or intangibly, for example, in a digital network.

Digital content comprising electronic signals are now treated in commercial law in the same manner as they have long been treated economically.[33]

VI. The Court of Justice of the European Union: UsedSoft v Oracle

The Court of Justice of the European Union has come in its ground breaking decision *UsedSoft* v *Oracle*[34] to a similar conclusion,

according to articles from 52 to 58 for distance and off-premises contracts is excluded relating to: [...] the supply of digital content which is not supplied on a tangible medium if the performance has begun with the consumer's prior express consent and his acknowledgment that he thereby loses his right of withdrawal'.

[32] See new § 356, para 5, *Bürgerliches Gesetzbuch* (*BGB*) introduced by law of 20 September 2013, n 22 above: 'With regard to a contract for the supply of digital content which is not supplied on a tangible medium, the right of withdrawal expires even if the trader has started with the performance of the contract, after the consumer...'.

[33] Cf Communication of 11 October 2011, COM (2011) 636 final, 9: EU-Commission has also in the meantime formulated the principle of equal treatment and handling in connection with the draft sales law as follows: 'In order to take into account the increasing importance of the digital economy, and to ensure that the new regime is 'future-proof', digital content contracts will also fall within the scope of the new rules. This means that the Common European Sales Law could also be used, for example, when buying music, films, software or applications that are downloaded from the internet. These products would be covered irrespective of whether they are stored on a tangible medium such as a CD or a DVD'.

[34] Case C-128/11 *UsedSoft GmbH* v *Oracle International Corp.* (European Court of Justice Grand Chambre 3 July 2012) available at www.eur-lex.europa.eu; for a particularly detailed analysis see H. Zech, 'Vom Buch zur Cloud' *Zeitschrift für Geistiges Eigentum*, 368 (2013); M. Grützmacher, 'Endlich angekommen im digitalen Zeitalter!? Die Erschöpfungslehre im europäischen Urheberrecht: der gemeinsame Binnenmarkt und der Handel mit gebrauchter Software' *Zeitschrift für Geistiges Eigentum*, 46 (2013); see also M. Senftleben, 'Die Fortschreibung des urheberrechtlichen Erschöpfungsgrundsatzes im digitalen Umfeld' *Neue Juristische*

although the decision of course only directly addressed the problem of exhaustion with respect to the sale of software. However, in line with the principle of a single European market, the court fundamentally treated data which a user finally transfers on an outright basis as tradeable goods to be dealt with in a manner akin to property under commercial law.[35] Although this argument was initially derived by the Court of Justice of the European Union from the Directive 2009/24/EU on the legal protection of computer programs,[36] it must also be applied to other digital contents (data in electronic form) which in EU cross border transactions are handled and sold like goods in respect of which 'ownership'[37] can be transferred.[38]

Wochenschrift, 2924 (2012); A. Ohly, 'Anmerkung zu EuGH v. 3 July 2012, Rs. C-128/11, Usedsoft/Oracle' *JuristenZeitung*, 42 (2013); R. Hilty, 'Die Rechtsnatur des Softwarevertrages' *Computer und Recht*, 625 (2012); J. Schneider and G. Spindler, 'Der Kampf um die gebrauchte Software – Revolution im Urheberrecht?' *Computer und Recht*, 489 (2012); R. Hilty, K. Köklü and F. Hafenbrädl, 'Software Agreements: Stocktaking and Outlook – Lessons from the UsedSoft v Oracle Case from a Comparative Law Perspective', 44 *The International Review of Intellectual Property and Competition Law*, 263 (2013); in the USA the general principle of international exhaustion continues to apply, cf 17 USC (United States Code) para 109 (a), 'First Sale' doctrine, *Kirtsaeng* v *Wiley, Gewerblicher Rechtsschutz und Urheberrecht – Internationaler Teil*, 672 (2013); see also Bundesgerichtshof 17 July 2013 – I ZR 129/08 – *UsedSoft II* (referral back to the Oberlandesgericht, the Higher Regional Court, in Munich).

[35] See point 61 of the judgment *UsedSoft GmbH* v *Oracle International Corp.*: 'It should be added that, from an economic point of view, the sale of a computer program on CD-ROM or DVD and the sale of a program by downloading from the internet are similar. The on-line transmission method is the functional equivalent of the supply of a material medium'; similarly M. Lehmann, in U. Loewenheim ed, *Handbuch des Urheberrechts* (München: C.H. Beck, 2nd ed, 2010) 1866 (12).

[36] Directive 2009/24/EG of 23 April 2009, Official Journal EC L 111/16 of 5 May 2009.

[37] See point 46 of the judgment *UsedSoft GmbH* v *Oracle International Corp.*

[38] See also T. Hoeren and I.I. Försterling, 'Online Vertrieb "gebrauchter" Software', *Multimedia und Recht* 642, 647 (2012); J. Schneider and G. Spindler, n 34 above, 497; T. Hartmann, 'Weiterverkauf und "Verleih" online vertriebener Inhalte Zugleich Anmerkung zu EuGH, Urteil vom 3 Juli 2012, Rs. EUGH Aktenzeichen C12811 C-128/11 – UsedSoft/Oracle' *Gewerblicher Rechtsschutz und Urheberrecht – Internationaler Teil* 980, 984-989 (2012); also M. Grützmacher, n 34 above, 81 ff; L. Kubach, 'Musik aus zweiter Hand – ein neuer digitaler Trödelmarkt?', *Computer und Recht* 279, 283 (2013); N. Malevanny, 'Die UsedSoft-

The foregoing also applies where there is a download from the 'cloud',[39] in other words, when in the course of cloud computing data are sold on an outright basis to a buyer to both use and own.[40] In practice, a data set in this context is commercially treated as a good and should therefore be classified and treated as such under commercial law principles.

The Directive on consumer rights[41] and the imminent Common European Sales Law,[42] the Court of Justice of the European Union[43] and the Commission[44] have clearly indicated that the EU law in the future will develop in the following manner in relation to the commercial handling of data in digital form: data in the form of digital content are considered as tradeable commercial goods. When data usage rights are the subject of an outright sale, there is a transfer of both sale or gift objects and rights. From a contractual and property law perspective, the laws relating to the sale or gifting of

Kontroverse: Auslegung und Auswirkungen des EuGH-Urteils' *Computer und Recht* 422, 426 (2013); affirmative with regard to at least computer games and otherwise open J.P. von Ohrtmann and C. Kuß, 'Der digitale Flohmarkt – das EuGH-Urteil zum Handel mit Gebrauchtsoftware und dessen Auswirkungen' *Betriebs-Berater*, 2262, 2264 ff (2012); possibly also M. Rath and C. Maiworm, 'Weg frei für Second-Hand-Software? EuGH, Urteil vom 3 July 2012 – C-128/11 ebnet Handel mit gebrauchter Software', *Wettbewerb in Recht und Praxis* 1051, 1055 (2012). Contra view: J. Marly, 'Der Handel mit so genannter "Gebrauchtsoftware"' *Europäische Zeitschrift für Wirtschaftsrecht* 654, 657 (2012); H. Hansen, 'Keine Erschöpfung beim Online-Vertrieb von eBooks', *Gewerblicher Rechtsschutz und Urheberrecht – Prax*, 207 (2013); possibly also N. Rauer and D. Ettig, 'Urheberrecht: EuGH trifft Grundsatzentscheidung zu "gebrauchter" Software' *Europäisches Wirtschaft- und Steuerrecht* 322 (2012). Cf *contra* Landgericht Bielefeld 5 March 2013 Beck-Rechtsprechung 07144 (2013).

[39] See also R. Hilty, n 34 above, 625.

[40] M. Lehmann, in G. Meents and J.G. Borges eds, *Cloud Computing*, (München: C.H. Beck, 2014) chapter 5, at note 73 (to be released); see also M. Lehmann and A. Giedke, 'Cloud computing – technische Hintergründe für die territorial gebundene rechtliche Analyse' *Computer und Recht*, 608 (2013); A. Giedke, *Cloud computing: eine wirtschaftsrechtliche Analyse mit besonderer Berücksichtigung des Urheberrechts* (München: VVF, 2013), *passim*; H. Zech, n 34 above, 368; M.C. De Vivo, 'Il contratto ed il cloud computing' *Rassegna di Diritto civile*, 1001 (2013); A. Ohly, n 34 above, 43; R. Hilty, n 34 above, 633; N. Malevanny, n 38 above, 426.

[41] See n 22 above.

[42] See n 30 above.

[43] See n 34 above.

[44] See n 33 above.

objects apply. These principles can as a consequence also apply to the transfer of intellectual and industrial property in digital form.[45] In copyright law, for example, these principles should also be taken into account in relation to the work being undertaken in the third round of reforms to Italian as well as to German copyright law.[46]

B. Databanks

I. The protection of databanks and data

Under EU law, personal data can only be gathered legally under strict conditions, and for a legitimate purpose. Furthermore, persons or organisations which collect and manage personal information must protect it from misuse and must respect certain rights of the data owners which are guaranteed by EU law. Conflicting data protection rules in different countries can compromise international exchanges. Individuals might also be unwilling to transfer personal data abroad if they were uncertain about the level of protection in other countries. Therefore, common EU rules have been established to ensure that personal data enjoy a high standard of protection everywhere in the EU. The EU's Data Protection Directive no 46 of 1995[47] also foresees specific rules for the transfer of personal data outside the EU to ensure the best possible protection of data when it is exported abroad. Such a directive aims at ensuring a functioning internal market and effective protection of the fundamental right of individuals to data protection. Nevertheless, the minimum harmonization character of the afore mentioned directive has led to an uneven level of protection for personal data, depending on the country where an individual lives or buys goods and services.

In this scenario, the protection given to electronic databases under the European database Directive,[48] to databank works

[45] M. Lehmann, n 23 above.

[46] Cf in addition T. Dreier and G. Schulze eds, *UrhR, Kommentar* (München: C.H. Beck, 4th ed, 2013) 53; about the legislative regulation of the trade in used software.

[47] Directive 1995/46/EC of 24 October 1995, Official Journal EC L 181, 31 of 23 November 1995.

[48] Directive 1996/9/EG of 11 March 1996, Official Journal EG L 77/20 of 27 March 1996; cf in addition S. von Lewinski, in U. Loewenheim ed, n 35 above, 1038,

pursuant to § 4 of the *UrhG* (German Copyright law)[49] and to non-creative collections of data pursuant to § 87a of the *UrhG*,[50] does not extend to the protection of individual datum, but fundamentally rather to the protection of the databank scheme, its structure and retrieval system. Recital 23 of the Directive in any event makes it clear that the creation and the operation of databank software does not fall under the protection of the Databank Directive but instead is only protected by the Computer Program Directive 91/250/EEC, now also Directive 2009/24/EU.[51] In Art 1, para 2 of the Database Directive a databank is defined as a 'collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means'.

The Court of Justice of the European Union[52] has furthermore in its British-horse-racing-board-decision determined that in relation to non-creative databanks, only investments in the means which enable existing information to be captured and collected in a databank can be protected. Protection does not however extend to the production of the elements themselves, namely datum, which can then be collected together in a databank: 'The purpose of the protection by the *sui generis* right provided for by the directive is to promote the establishment of storage and processing systems for existing information and not the creation of materials capable of being collected subsequently in a database'.[53]

at note 16; M.M. Walter ed, *Europäisches Urheberrecht – Kommentar* (Wien-New York: Springer, 2001) 689.

[49] T. Dreier, in T. Dreier and G. Schulze eds, n 46 above, 151.

[50] Ibid 1254.

[51] Directive 2009/24/EU of 23 April 2009 on the legal protection of computer programs, Official Journal EU L 111/16 of 5 May 2009.

[52] Case 203/02, *The British Horseracing Board Ltd e.a.* v *William Hill Organization Ltd* (European Court of Justice Grand Chambre 9 November 2004) available at www.eur-lex.europa.eu. See the critical comment of M. Lehmann, 'Rechtlicher Schutz von Datenbanken – Pferdesportdatenbank' *Computer und Recht*, 10 (2005); see also A. Wiebe, 'Europäischer Datenbankschutz nach "William Hill" – Kehrtwende zur Informationsfreiheit?' *Computer und Recht*, 169 (2005); confirmed in Case 444/02, *Fixtures Marketing Ltd* v *OPAP*, [2004] ECR I-10549; the same also applies to databank works, Case 604/10, *Football Dataco Ltd*, [2012] ECR I-0000; cf fundamentally M. Leistner, *Der Rechtsschutz von Datenbanken im deutschen und europäischen Recht* (München: C.H. Beck, 2000), *passim*.

[53] Case 203/02, n 52 above; cf in addition also T. Dreier and G. Schulze eds, n

This *dictum* has significantly confined the *sui generis* protection of databases in Europe, even though in one of the predecessors[54] of this Directive, it was originally contemplated that the results of data mining (data mining, being the collection of data), collected and last of all, the datum itself, should all be legally protected.[55] Given that the value of Big Data is constantly increasing[56] it makes sense that the costs of generating data should also be taken into account.[57] Although of course legally bound to do so, the German Federal Court (*Bundesgerichtshof*) has unfortunately accepted this verdict.[58] Only certain investment costs[59] are taken into account in determining whether legal protection under § 87a of the *UrhG* is available:[60] the costs incurred in the collection and arrangement of already existing data, the costs incurred in presenting the data and the preparation of a databank technical infrastructure, as well as the maintenance, care and servicing of such.[61] Investments in the creation of content, in other words, datum from which a databank can subsequently be compiled do not qualify for legal protection; of sole relevance is the

46 above, section 87a, 13; D. Thum, in A.A. Wandtke and W. Bullinger eds, *UrhG* (München: C.H. Beck, 4th ed, 2014), section 87a, 36.

[54] Cf J.J. Gaster, 'Zwei Jahre Sui-generis-Recht: Europaischer Datenbankschutz in der Praxis der EG- Mitgliedstaaten', *Computer und Recht*, 38 (2000).

[55] Likewise M. Leistner, n 52 above, 149; S. von Lewinski, n 27 above, 770.

[56] See n 2 above.

[57] M. Lehmann, n 52 above, 16.

[58] Bundesgerichtshof 1 December 2010 – I ZR 196/08 – *Zweite Zahnarztmeinung II*, *Gewerblicher Rechtsschutz und Urheberrecht*, 724 (2011); Bundesgerichtshof, 25 March 2010 – I ZR 47/08 – *Autobahnmaut*, *Gewerblicher Rechtsschutz und Urheberrecht*, 1004 (2010). In the Tele-Info-CD, decision of 6 May 1999, *Computer und Recht*, 496 (1999), the *Bundesgerichtshof* extended the databank protection rights under § 87a of the *UrhG* to all collections of telephone data as well as the telephone data itself.

[59] Bundesgerichtshof 21 July 2005 – I ZR 290/02 – *Hit Bilanz*, *Computer und Recht*, 849 (2005), with case commentary by U. Wuermeling.

[60] In relation to the difficulties in drawing the boundaries cf T. Hoeren, n 2 above, 35; J. Gaster, ' "Obtinere" of Data in the Eyes of the ECJ – How to interprete the Database Directive after British Horseracing Board Ltd et al v William Hill Organisation Ltd' *Computer und Recht international*, 129 (2005); A. Wiebe, n 52 above, 171.

[61] Bundesgerichtshof 22 June 2011 – I ZR 159/10 – *Automobil-Onlinebörse*, *Computer und Recht*, 757 (2011). Cf in connection therewith also § 87a *UrhG*: 'wesentlich geänderte Datenbank' ('fundamentally changed database').

facilitation of systems for the storage and processing of data, not the data collection as such.[62]

These copyright aspects of databank protection are therefore ineffectual for the protection of data per se.

Competition law protection given to data and data collections against immediate service transfers which directly contravene such laws, as demonstrated in the Tele-Info-CD-decision of the *BGH*[63] (under the old German Competition Law, namely the *UWG*) is however questionable. Protection in this area requires a competition law characteristic which is particularly worthy of protection. The hurdle to showing such a characteristic is not high where the service which has been taken over simply involved, for example, the making of a copy, or in layman's terms, the plagiarising of a competitor's telephone index.

II. No protection for information

It is necessary to distinguish between the protection of data in electronic form and the potential protection of information per se, for which fundamentally throughout the world no legal means of protection exists, according to the principle of 'free access to information'.[64] Although as Art 39 of TRIPS has already shown, it is possible under certain circumstances and within narrow confines for protection to be given to unpublished information, secret know-how, such as for example pursuant to §§ 17 ff of *UWG* for competition law reasons.[65] This is however the classic exception, which justifies the basic rule.

[62] D. Thum, n 53 above.

[63] Bundesgerichtshof, 6 May 1999 – I ZR 199/96 – n 58 above, 496, 500, with commentary by U. Wuermeling. An immediate transfer of service can also happen where only the content of or the information contained in data is acquired, for example, where a telephone directory is transcribed.

[64] Cf generally in addition A. Büllesbach and T. Dreier eds, *Wem gehört die Information im 21. Jahrhundert?* (Köln: Otto Schmidt, 2004) *passim*.

[65] Cf also Art 1, para 1, EU Reg. no 772/2004, Second Technology-Transfer-GVO, of 27 April 2004, Official Journal EU 2004 L 123/11. Cf the overview of know-how protection by C. Musiol, in G.N. Hasselblatt ed, *Münchener Anwaltshandbuch Gewerblicher Rechtsschutz* (München: C.H. Beck, 3rd ed, 2009) 908; A. Mittelstaedt,

III. The right 'to be forgotten' in the internet

More recently, the problem of deleting data in the internet and the 'right to be forgotten' has been discussed in connection with search engines[66] and social networks, such as, for example, Facebook,[67] Instagram[68] and Google.[69] Indeed, a particular aspect of the right to privacy[70] consists of the prerogative to conceal information about ourselves.[71] Reflections about this prerogative have more recently lead to further development of the right to be forgotten, even in the internet.[72]

The basic idea of Mayer-Schönberger,[73] which has been further developed, was that even in the internet there should not be an

in W. Erdmann, S. Rojahn and O. Sosnitza eds, *Handbuch des Fachanwalts, Gewerblicher Rechtsschutz* (Köln: Carl Heymanns, 2nd ed, 2011) 1003.

[66] Cf in addition the Google-decision of the Bundesgerichtshof of 14 May 2013 – VI ZR 269/12 – *Computer und Recht*, 459 (2013), as a consequence of which search engines are obliged at the request of an affected person to remove certain links. Search algorithms must be set up so that privacy breaches can be avoided.

[67] See K.N. Peifer, 'Persönlichkeitsrechte im 21. Jahrhundert – Systematik und Herausforderungen' *JuristenZeitung*, 853 (2013).

[68] N. Nolte, 'Zum Recht auf Vergessen im Internet', *Zeitschrift für Rechtspolitik*, 236 (2011); C. Kodde, 'Die "Pflicht" zu Vergessen', *Zeitschrift für Datenschutz*, 115 (2013).

[69] Cf Case C-131/12 *Google Spain SL and Google Inc.* v *Agencia Española de Protección de Datos (AEPD), Mario Costeja González* (European Court of Justice Grande Chambre 14 May 2014) available at www.eur-lex.europa.eu.

[70] See eg A. Baldassarre, 'Il diritto di privacy e la comunicazione elettronica', *Percorsi costituzionali*, I, 49 (2010).

[71] See on this point G. Finocchiaro, 'Identità personale (diritto alla)' in *Digesto delle discipline privatistiche. Sezione* civile (Torino: Utet, 2010), 722; M.R. Morelli, 'Oblio (diritto all')' in *Enciclopedia del diritto* (Milano: Giuffrè, 2002), VI, 848; V. Zeno-Zencovich, 'Identità personale', *Digesto delle discipline privatistiche. Sezione civile,* (Utet: Torino, 1993) IX, 294; A. Thiene, 'La tutela della personalità dal neminem laedere ad suum cuique tribuere' Riv. dir. civ., 351 ss. (2014).

[72] Also called, in the Italian literature, '*diritto all'oblio*'. See eg A. Baldassarre, n 70 above, 49; S. Rodotà, *Il diritto di avere diritti* (Bari: Laterza, 2013) 406: 'the right to be forgotten is the right to govern our own memory'. In the Italian jurisprudence, see also Corte di Cassazione 5 April 2012 no 5525, *Nuova giurisprudenza civile commentata*, X, 836 (2012), with case commentary by A. Mantelero; on the same case see also T.E. Frosini, 'Il diritto all'oblio e la libertà informatica' *Il diritto dell'informazione e dell'informatica*, 910 (2012).

[73] V. Mayer-Schönberger, *Delete – The virtue of Forgetting in the Digital Age* (Princeton and Oxford: Princeton University Press, 2009), 16.

eternal digital memory. Instead, there should be a 'gradual forgetting',[74] thereby reflecting the natural and biological memory loss of humans. All information in the internet should be subject to a certain 'end date'.[75] The legal means by which the right to be forgotten is to be achieved is the subject of considerable debate.[76] Suggestions have included a 'digital eraser', a right of withdrawal or a recall right, such as set out in § 42 of the *UrhG* (Right of recall based on altered opinion). From a constitutional point of view, the outcome needs to mirror Art 5 (freedom of expression) of the *Grundgesetz* (German Constitutional Law) and also provide for the possibility of an '*actus contrarius*', namely the deletion of personal information from the internet.

Within this framework, on 25 January 2012 the European Commission proposed a draft regulation for the general protection of data,[77] which is intended to replace the data protection Directive of 1995[78] and is also supposed to introduce a regulation which will lead to 'a right to be forgotten'.[79] In particular, Art 17 ('Right to erasure') of the above mentioned proposal for a regulation

[74] Ibid 199.

[75] Ibid 201.

[76] O. Pollicino and M. Bassini, 'Diritto all'oblio: i più recenti spunti ricostruttivi nella dimensione comparata ed europea', in F. Pizzeti ed, *I diritti nella rete della rete* (Torino: Giappichelli, 2013) 185; S. Rodotà, n 72 above, 406, which defines it as: 'the right to govern our own memory'; M. Mezzanotte, *Il diritto all'oblio. Contributo allo studio della privacy storica* (Napoli: Jovene, 2009) 81; G. Finocchiaro, 'La memoria della rete e il diritto all'oblio', *Diritto dell'informazione e dell'informatica*, 391 (2010); F. Di Ciommo and R. Pardolesi, 'Dal diritto all'oblio in Internet alla tutela dell'identità dinamica. È la rete, bellezza!' *Danno e responsabilità*, 710 (2012). Cf also the Italian leading case regarding online archives: Autorità Garante della Protezione dei Dati Personali, 11 December 2008 (document web no 1582866).

[77] Proposal for a Regulation of the European Parliament and of the Council on the protection of individuals with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation), COM(2012) 11 final. 2012/0011 (COD), Bruxelles, 25 January 2012.

[78] Directive 1995/46/EC of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, Official Journal EC L 181, 31 of 23 November 1995; cf in addition C. Runte, in M. Lehmann and J.G. Meents eds, *Handbuch des Fachanwalts Informationstechnologierecht* (Köln: Carl Heymanns Verlag, 2nd ed, 2011) 1065.

[79] Cf Section 17(1) of the draft general data protection legislation in the EU. Cf O. Pollicino and M. Bassini, n 76 above, 191.

'elaborates and specifies the right of erasure provided for in Art 12(b) of Directive 95/46/EC and provides the conditions of the right to be forgotten [...]'. It also integrates the right to have the processing restricted in certain cases, avoiding the ambiguous terminology 'blocking'.[80]

Even more recently, in the Google-decision the European Court of Justice clarified that: 'according to Art 12(b) and subpara (a) of the first paragraph of Art 14 of Directive 95/46, the operator of a search engine is obliged to remove from the list of results displayed following a search made on the basis of a person's name link to web pages, published by third parties and containing information relating to that person, also in a case where that name or information is not erased beforehand or simultaneously from those web pages, and even, as the case may be, when its publication in itself on those pages is lawful'.[81] The Court observes in this regard that, when appraising the conditions for the application of the mentioned provisions, it should *inter alia* be examined whether the data subject has the right that the information in question relating to him personally should, at a particular point of time, no longer be linked to his name by a list of results displayed following a search made on the basis of his name, without it being necessary in order to find such a right that the inclusion of the information in question in that list causes prejudice to the data subject.[82] After the mentioned ECJ decision, Google

[80] Proposal for a Regulation of the European Parliament and of the Council on the protection of individuals with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation), COM(2012) 11 final. 2012/0011 (COD) Bruxelles, 25 January 2012, 8. Cf eg S.C. Bennett, 'The "Right to Be Forgotten": Reconciling EU and US Perspectives', 30 *Berkeley Journal on International Law*, 161 (2012).

[81] Case C-131/12 *Google Spain SL and Google Inc.* v *Agencia Española de Protección de Datos (AEPD), Mario Costeja González*, n 69 above para 88. Relating to the request for a preliminary ruling, see eg C. Piltz, 'Spaniens Don Quijote: Google gegen die Datenschutzbehörde – Überlegungen zu den EuGH-Vorlagefragen' *Zeitschrift für Datenschutz*, 249 (2013).

[82] Case C-131/12 *Google Spain SL and Google Inc.* v *Agencia Española de Protección de Datos (AEPD), Mario Costeja González*, n 69 above, para 96; cf also para 97 of the judgement, where the Court adds that: 'As the data subject may, in the light of his fundamental rights under Articles 7 and 8 of the Charter, request that the information in question no longer be made available to the general public on account of its inclusion in such list of results, those rights override, as a rule, not only the

created a webpage, where, if outdated content from a website is still appearing in Google Search results, a data subject can ask Google to update or remove the page.[83]

IV. The right of privacy

The protection of the right of privacy in Germany[84] in particular has gained some relevance within the context of commercial use of private information. Recently the German Supreme Court (*Bundesgerichtshof*) ordered Google to program and design its search engine in such a way, that infringement of privacy rights do not occur; in the decision Autocomplete/Google[85] the court required the search algorithm of any internet intermediary[86] to be designed so

economic interest of the operator of the search engine but also the interest of the general public in having access to that information upon a search relating to the data subject's name. However, that would not be the case if it appeared, for particular reasons, such as the role played by the data subject in public life, that the interference with his fundamental rights is justified by the preponderant interest of the general public in having, on account of its inclusion in the list of results, access to the information in question'.

[83] See https://support.google.com/webmasters/answer/1663691?hl=en (last visited 20 January 2015).

[84] In general see H. Sprau, 'Sub § 823 BGB', Rn 83, *Palandt Kommentar zum BGB* (München: C.H. Beck Verlag, 73nd ed, 2014) ('*Allgemeines Persönlichkeitsrecht*'), 1385; G. Spindler, 'Datenschutz- und Persönlichkeitsrechte im Internet – der Rahmen für Forschungsaufgaben und Reformbedarf' *Gewerblicher Rechtsschutz und Urheberrecht*, 996 (2013); H.P. Bull, 'Grundsatzentscheidungen zum Datenschutz bei den Sicherheitsbehörden' *Neue Zeitschrift für Verwaltungsrecht*, 257 (2011); K.N. Peifer, n 67 above, 853; cf Bundesgerichtshof 14 May 2013, n 66 above, 459.

[85] Cf Bundesgerichtshof 14 May 2013, n 66 above, 459.

[86] As to the general civil responsibility of intermediaries cf C. Czychowski and J.B. Nordemann, 'Grenzenloses Internet – entgrenzte Haftung?', *Gewerblicher Rechtsschutz und Urheberrecht*, 986 (2013); M. Lehmann, in G. Meents and J.G. Borges eds *Cloud Computing*, n 40 above. More recently, about the concept of 'intermediaries whose services are used by a third party to infringe a copyright or related right', see Case C-314/12 *UPC Telekabel Wien GmbH* v *Constantin Film Verleih GmbH, Wega Filmproduktionsgesellschaft mbH* (European Court of Justice Grand Chambre 27 March 2014) available at www.eur-lex.europa.eu para 40: 'Article 8(3) of Directive 2001/29 must be interpreted as meaning that a person who makes protected subject-matter available to public on a website without the agreement of the rightholder, for the purpose of Article 3(2) of that directive, is using

as to enable references to previous research activities of customers to exclude any incorrect additional references which could infringe the privacy rights of a natural person.[87]

As to the question of jurisdiction in the case of a violation of privacy rights in the internet, the ECJ has decided in the case of Martinez,[88] that a plaintiff can bring an action in his or her domicile, where the centre of his or her personal and economic interests is present; the plaintiff can also claim damages for this violation.

C. Conclusions

Digital content comprising electronic signals are now treated in commercial law in the same manner as they have long been treated economically, namely as valuable commercial goods.

The Directive on consumer rights and the imminent Common European Sales Law, the Court of Justice of the European Union and the Commission have clearly indicated that the EU law in the future will develop in the following manner in relation to the commercial handling of data in digital form: data in the form of digital content are considered as tradeable commercial goods. When data usage rights are the subject of an outright sale, there is a transfer of both sale or gift objects and rights. From a contractual and property law perspective, the laws relating to the sale or gifting of objects apply. These principles can as a consequence also apply to the transfer of intellectual and industrial property in digital form.

At the same time, the need for privacy laws to protect individuals

the services of the internet service provider of the persons accessing that subject-matter, which must be regarded as an intermediary within the meaning of Article 8(3) of Directive 2001/29'. Cf also Case C-131/12 *Google Spain SL and Google Inc.* v *Agencia Española de Protección de Datos (AEPD), Mario Costeja González*, n 69 above, para 41 and 60.

[87] If one uses the name of a person as a search topic, infringing references, which violate privacy rights, must be deleted; eg the name of Bettina Wulff, ex-wife of the former German President Wulff, may not be linked with an escort service.

[88] Joined Cases C-509/09 and C-161/10 *Martinez*, [2011] ECR I-10269 *Gewerblicher Rechtsschutz und Urheberrecht – Internationaler Teil*, 47 (2012).

'against' the circulation of information about them has become clearer. Discussion about the abovementioned prerogative has recently lead to the development of a 'right to be forgotten', even in the internet, which right will be expressly acknowledged in the forthcoming EU regulation for the general protection of data.