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## CLOUD COMPUTING CONTRACTS AS CONTRACTS FOR THE SUPPLY OF DIGITAL CONTENT: CLASSIFICATION AND INFORMATION DUTY\*

by

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*Cloud computing contracts are among the most frequently concluded contracts over the Internet. Until now, however, they have been considered mainly from the perspective of data protection and intellectual property laws. Although these analyses provide valuable insights, they do not fully cover an important area, i.e. consumer protection. The article focuses on the latter issue, taking Consumer Rights Directive as a reference point. The Directive is one of the latest acts concerning consumer protection in the European Union. It also introduces a new type of agreement that should cover cloud computing contracts. In addition, characteristically for European law, it provides for an information duty as a means of consumer protection. The article examines these two aspects by seeking an answer to the following questions: (1) do cloud computing contracts classify as contracts for the supply of digital content? And (2) do the provisions on information duty suit well cloud computing contracts? The analysis includes the results of empirical studies of these contracts. In the conclusion, the article states that the new type of contract may not significantly improve consumer protection, mainly due to the ambiguity resulting from recital 19 of the Directive. On the other hand, consumers may benefit from the provisions on information duty, though it does not directly address the main problems connected with cloud computing contracts.*

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The article is divided into four parts. The first provides an introduction to the topic. The second discusses cloud computing contracts as contracts for the supply of digital content. The third analyses the provisions on information duty from the point of view of the contracts under consideration. Finally, the fourth summarises previous comments.

## KEY WORDS

*Cloud Computing Contracts, Consumer Protection, Digital Content, Information Duty*

## 1. INTRODUCTION

Technical progress has an important influence on private law. This is particularly evident in the case of the Internet which has changed the way contracts are concluded and performed. A similarly revolutionary impact is also attributed to cloud computing.<sup>1</sup> This IT-solution offers various advantages, including costs reduction, access to previously unavailable functionalities or simply greater convenience.<sup>2</sup> Consequently, the question arises how clouds will affect private law. So far, cloud computing contracts have been primarily considered from the perspective of copyright and data protection. Such reference points are understandable, given that a computer program and information it processes constitute an intangible asset. The analysis undoubtedly leads to insightful conclusions. However, there is also another important issue that has not yet been addressed, i.e. the question of consumer protection in cloud computing contracts. Some authors even claim that focusing on contractual rights and duties is characteristic of the American rather than the European approach to cloud computing.<sup>3</sup> I believe that the following considerations can at least partially fill the gap.

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<sup>1</sup> See European Commission. (2012) *Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions 'Unleashing the Potential of Cloud Computing in Europe'*. (COM(2012) 529 final). [online] Luxembourg: Publications Office of the European Union, pp. 8, 13. Available from: <http://ec.europa.eu/transparency/regdoc/rep/1/2012/EN/1-2012-529-EN-F1-1.Pdf> [Accessed 14 March 2019].

<sup>2</sup> Bradshaw, D. et al. (2014) *Uptake of Cloud in Europe Follow-up of IDC Study on Quantitative estimates of the demand for Cloud Computing in Europe and the likely barriers to take-up*. [online] Luxembourg: Publications Office of the European Union, pp. 8, 13. Available from: <https://publications.europa.eu/en/publication-detail/-/publication/cfe5a91c-85cf-4c64-99e9-1b5900c8529a/language-en/format-PDF/source-search> [Accessed 14 March 2019].

<sup>3</sup> Celestine, C. M. (2013) "Cloudy" Skies, Bright Futures? In Defense of a Private Regulatory Scheme for Policing Cloud Computing. *Journal of Law, Technology and Policy*, 1, p. 157.

European law protects consumers in several acts, forming a patchwork of regulations.<sup>4</sup> I would like to focus the following considerations mainly on Consumer Rights Directive (“CRD” or “the Directive”).<sup>5</sup> There are two reasons for choosing this frame of reference. Firstly, it is one of the most recent acts related to consumer protection. Therefore, it should respond to legal challenges arising from the use of new technologies.<sup>6</sup> Moreover, the *European Commission* pointed out in 2012 that the rules of the draft Common European Sales Law Regulation (“CESL Regulation”)<sup>7</sup> address “some aspects of cloud computing”<sup>8</sup>. The statement was then upheld in the decision on setting up an expert group on cloud computing contracts.<sup>9</sup> Though the Regulation was never adopted, its ideas influenced the provisions of Consumer Rights Directive. Secondly, the Directive develops the *acquis* of its predecessors by introducing a contract for the supply of digital content.<sup>10</sup> This new type of agreement seems specifically tailored for the delivery of intangible assets. Consequently,

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<sup>4</sup> See Weatherill, S. (2012) The Consumer Rights Directive: How and Why a Quest for “Coherence” Has (Largely) Failed. *Common Market Law Review*, 4, pp. 1281–1286; Weatherill, S. (2013) *EU Consumer Law and Policy*. 2nd ed. Cheltenham-Northampton: Edward Elgar, p. 141.

<sup>5</sup> Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council. *Official Journal of the European Union* (2011/L-304/64) 22 November. Available from: <http://data.europa.eu/eli/dir/2011/83/oj> [Accessed 14 March 2019].

<sup>6</sup> See Markou, Ch. (2017) Directive 2011/83/EU on Consumer Rights. In: Arno R. Lodder and Andrew D. Murray (eds.). *EU Regulation on E-Commerce*. Cheltenham-Northampton: Edward Elgar, pp. 181–182; Weatherill, S. (2013) *EU Consumer Law and Policy*. 2nd ed. Cheltenham-Northampton: Edward Elgar, p. 112.

<sup>7</sup> European Commission. (2011) *Proposal for a Regulation of the European Parliament and of the Council on a Common European Sales Law*. (COM(2011) 635 final). [online] Available from: <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52011PC0635> [Accessed 14 March 2019].

<sup>8</sup> European Commission. (2012) *Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions ‘Unleashing the Potential of Cloud Computing in Europe’*. (COM(2012) 529 final). [online], pp. 9, 11–12. Available from: <http://ec.europa.eu/transparency/regdoc/rep/1/2012/EN/1-2012-529-EN-F1-1.Pdf> [Accessed 14 March 2019].

<sup>9</sup> Recital 6 – Commission Decision of 18 June 2013 on setting up the Commission expert group on cloud computing contracts. *Official Journal of the European Union* (2013/C-174/6) 20 June. Available from: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2013:174:0006:0008:EN:PDF> [Accessed 14 March 2019].

<sup>10</sup> Council Directive 85/577/EEC of 20 December 1985 to protect the consumer in respect of contracts negotiated away from business premises. *Official Journal of the European Communities* (1985/L-371/31). Available from: <https://eur-lex.europa.eu/eli/dir/1985/577/oj> [Accessed 14 July 2019]; Directive 97/7/EC of the European Parliament and of the Council of 20 May 1997 on the protection of consumers in respect of distance contracts. *Official Journal of the European Communities* (1997/L-144/19) 20 May. Available from: <https://eur-lex.europa.eu/eli/dir/1997/7/oj> [Accessed 14 July 2019].

the question arises as to how it applies to cloud computing contracts. The answer is important to understand the way clouds work and the risks they pose.

This is in turn connected with the information duty, viewed as “*the core of the Directive*”<sup>11</sup>. The duty aims at correcting the imbalance of the bargaining process by removing information asymmetry, a source of consumer’s weaker position.<sup>12</sup> The approach is market-neutral since it respects the autonomy of the parties and their private negotiations.<sup>13</sup> In American literature, it is even seen as a distinctively European perspective on cloud computing contracts.<sup>14</sup> The survey from 2012 confirms the need for such a regulation, indicating that middle and low value (i.e. consumer-oriented) cloud markets are still limited in information.<sup>15</sup> However, the consumer should be “properly” informed, which means that they receive information relevant to the transaction. The elaboration (sometimes regarded as the overgrowth<sup>16</sup>) of the information duty raises the question if the Directive covers the areas that should be balanced in favour of the consumer.

## 2. CONTRACTS FOR THE SUPPLY OF DIGITAL CONTENT

### 2.1. GENERAL OVERVIEW

The concept of a contract for the supply of digital content dates back to the CESL Regulation. However, the draft did not clarify the nature of this agreement, even though several provisions referred to it. Consumer Rights Directive adopts a similar approach. Its provisions do not define the contract for the supply of digital content. Nevertheless, recital 19 of the CRD offers some insight into the essence of this agreement. In my opinion, there are two basic elements of this contract.

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<sup>11</sup> Weatherill, S. (2013) *EU Consumer Law and Policy*. 2nd ed. Cheltenham-Northampton: Edward Elgar, p. 112.

<sup>12</sup> Markou, Ch. (2017) Directive 2011/83/EU on Consumer Rights. In: Arno R. Lodder and Andrew D. Murray (eds.). *EU Regulation on E-Commerce*. Cheltenham-Northampton: Edward Elgar, p. 195.

<sup>13</sup> Weatherill, S. (2013) *EU Consumer Law and Policy*. 2nd ed. Cheltenham-Northampton: Edward Elgar, p. 92.

<sup>14</sup> Celestine, C. M. (2013) “Cloudy” Skies, Bright Futures? In Defense of a Private Regulatory Scheme for Policing Cloud Computing. *Journal of Law, Technology and Policy*, 1, p. 156.

<sup>15</sup> Hon, W. K., Millard, Ch. and Walden, I. (2012) Negotiating Cloud Contracts: Looking at Clouds from both Sides Now. *Stanford Technology Law Review*, 16 (1), p. 127.

<sup>16</sup> Weatherill, S. (2012) The Consumer Rights Directive: How and Why a Quest for “Coherence” Has (Largely) Failed. *Common Market Law Review*, 4, pp. 1293–1294.

Firstly, Article 2 (11) of the Directive broadly defines digital content as data produced and supplied in digital form. Recital 19 of the CRD develops this concise explanation by listing examples of digital content such as computer programs, music, videos or texts. From this perspective, cloud computing contracts easily fit into the category of contracts related to digital content. The NIST recommendations, a document often cited in the context of cloud computing, support the conclusion.<sup>17</sup> As indicated therein, three main cloud service model, i.e. *Software as a Service* (“SaaS”), *Platform as a Service* (“PaaS”) and *Infrastructure as a Service* (“IaaS”), focus on remote use of computer programs.

Secondly, the data should be transferred by one party to the other. The word “supply” in the name of the contract indicates this requirement. Moreover, Article 2 (11) and recital 19 of the Directive treat the supply of data as an intrinsic element of the concept of digital content. Moreover, according to recital 19 of the CRD, data stored on a tangible medium constitutes goods within the meaning of Article 2 (11) thereof. As a result, the supply of such digital content is subject to the provisions on delivery of goods, which in turn confirms the above requirement to transfer the data. The conclusion also corresponds with the technical aspect of using digital content. Computers can present the data only if it is loaded into their storage, even if it is transient as in the case of *Random Access Memory* (RAM).<sup>18</sup> Therefore, the transfer of the content is necessary for the other party to perceive the data. Similarly, recital 19 of the Directive recognises that the supply of the digital content can be permanent (i.e. a consumer downloads a file) or temporary (i.e. a consumer only accesses the content, e.g. in the form of streaming).

However, the Directive does not explicitly state that data should be supplied by the trader. As a result, one could argue that the classification of a contract as a contract for the supply of digital content does not depend on the person who delivers the data. On the other hand, several provisions indirectly contradict this statement. The rules on digital content concern mainly the obligations of the trader who is treated as having the best

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<sup>17</sup> Mell, P. and Grance, T. (2011) *The NIST Definition of Cloud Computing. Recommendations of the National Institute of Standards and Technology*. Gaithersburg: National Institute of Standards and Technology, pp. 2–3. [online] Available from: <https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nistspecialpublication800-145.pdf> [Accessed 14 March 2019].

<sup>18</sup> Wikipedia. (2019) *Software*. [online] Available from: <https://en.wikipedia.org/wiki/Software> [Accessed 21 July 2019].

information about the subject matter of the contract.<sup>19</sup> Consequently, it can be assumed that this knowledge arises from possessing the data, which leads to the conclusion that the trader is the party who should supply digital content. This is further supported by Articles 17 (1) and 18 regulating the delivery of the content by the trader. Besides, the right of withdrawal generally refers to the situations in which the consumer is the person who received or should have received the data.<sup>20</sup>

The assumption that the trader should supply the data is also supported by the analysis of the legislative process in which the Directive has been adopted. Except for a minor reference to “*data files download by the consumer*”, the *European Commission* initially did not create a set of provisions on contracts for the supply of digital content.<sup>21</sup> This was later criticised by the MEPs who introduced the terms “digital content” and “intangible moveable item” of which only the first one was adopted in the Directive.<sup>22</sup> As indicated in their report, the content was to be “transmitted” and “downloaded”.<sup>23</sup> Similarly, during the debate on the proposal for the Directive, MEPs said that consumers would be downloading and purchasing digital content.<sup>24</sup> In addition, *Directorate-General for Justice* presents the same stance in the Guidance to the CRD.<sup>25</sup> This document also states that

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<sup>19</sup> Article 5 (1) and (2), 6 (1) and (2) as well as recital 19 of the CRD.

<sup>20</sup> Article 9, 14 and recital 40, 46, 49, 51, 55 of the CRD with the exception in Article 16 (m) and recital 19 thereof concerning the supply of digital content on an intangible medium.

<sup>21</sup> European Commission. (2008) *Proposal for a Directive of the European Parliament and of the Council on consumer rights*. (COM(2008) 614 final). [online] Available from: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2008:0614:FIN> [Accessed 20 July 2019].

<sup>22</sup> European Parliament. (2011) *Report on the proposal for a directive of the European Parliament and of the Council on consumer rights*. [online] Available from: <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A7-2011-0038+0+DOC+PDF+V0//EN> [Accessed 20 July 2019].

<sup>23</sup> Proposals of amendments of Article 10 (1) (ha) and recital 11e – op. cit. See also the amendment of recital 10a proposed by the Committee on Legal Affairs and recital 12a proposed by Committee on Economic and Monetary Affairs – op. cit.

<sup>24</sup> European Parliament. (2011) *Debates: Wednesday, 23 March 2011 – Brussels*. [online] Brussels: European Parliament. Available from: <http://www.europarl.europa.eu/sides/getDoc.do?type=CRE&reference=20110323&secondRef=ITEM-020&language=EN&ring=A7-2011-0038> [Accessed 15 July 2019]; European Parliament. (2011) *Debates: Thursday, 23 June 2011 – Brussels*. [online] Brussels: European Parliament. Available from: <http://www.europarl.europa.eu/sides/getDoc.do?type=CRE&reference=20110623&secondRef=ITEM-014&language=EN&ring=A7-2011-0038#4-223-000> [Accessed 15 July 2019].

<sup>25</sup> Directorate-General for Justice. (2014) *DG Justice Guidance Document concerning Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council*. [online] pp. 64–65. Available from: [https://ec.europa.eu/info/sites/info/files/crd\\_guidance\\_en\\_0.pdf](https://ec.europa.eu/info/sites/info/files/crd_guidance_en_0.pdf) [Accessed 16 July 2019].

*“the Directive does not seem to apply to contracts under which it is the consumer who transfers goods to the trader”.*<sup>26</sup>

The conclusion has been subsequently accepted by some authors.<sup>27</sup> Therefore, one can conclude that digital content should be supplied by the trader. A contract that obliges a consumer to provide data does not constitute a contract for the supply of digital content. However, it may be qualified as a service contract within the meaning of Article 2 (6) thereof.

From this perspective, one may ask how do cloud computing contracts fit into the category of contracts for the supply of digital content. The above scheme fits well with *SaaS* contract. In this case, the consumer is interested in using a computer program in the cloud.<sup>28</sup> The provider supplies the application through a thin client (e.g. a web browser) or a program interface. Consequently, the transfer of data is requested by the consumer. It also forms the subject matter of *SaaS* contract. Moreover, the assumption remains valid when it comes to *PaaS* contract. This time, the consumer wants to get a software environment to host his applications.<sup>29</sup> The provider supplies it as digital content. Nevertheless, the consumer, not the provider, installs the applications in the cloud environment. Therefore, the transfer of digital content forms the subject matter of *PaaS* contract, though only a certain amount of data is uploaded at the request of the consumer.

On the other hand, the supply of digital content seems questionable in the case of *IaaS* contract. In this cloud service model, the consumer is not interested in accessing the applications supplied by the provider. Instead, the consumer wants to use provider's hardware resources, such as data processing or storage.<sup>30</sup> From this perspective, there is no digital content relevant for the parties which could be treated as the subject matter of *IaaS* agreement. However, the conclusion can be challenged by stating that cloud management involves the use of computer programs mentioned in recital 19 of the CRD as digital content. The argument seems even more

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<sup>26</sup> Op. cit., pp. 5–6.

<sup>27</sup> Markou, Ch. (2017) Directive 2011/83/EU on Consumer Rights. In: Arno R. Lodder and Andrew D. Murray (eds.). *EU Regulation on E-Commerce*. Cheltenham-Northampton: Edward Elgar, p. 186.

<sup>28</sup> Mell, P. and Grance, T. (2011) *The NIST Definition of Cloud Computing. Recommendations of the National Institute of Standards and Technology*. Gaithersburg: National Institute of Standards and Technology, p. 2. [online] Available from: <https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nistspecialpublication800-145.pdf> [Accessed 14 March 2019].

<sup>29</sup> Op. cit., pp. 2–3.

<sup>30</sup> Op. cit., p. 3.

convincing, given the demonstrative character of a list provided for in the recital. In my opinion, this view does not seem correct. While software as such constitutes digital content within the meaning of Article 2 (11) and recital 19 of the Directive, its use in the cloud is only instrumental for *IaaS* contract. A computer program does not form the main subject matter of this agreement. This suits the purpose of *IaaS* contract. A consumer concludes this agreement to fill the cloud with the digital content arbitrarily selected by them, not to exploit data supplied by the provider. Moreover, digital content is supplied by the consumer, which contradicts the previous conclusion that contracts for the supply of digital content require the trader to supply the data.

It is also worth noting that currently many items are equipped with software (e.g. various smart devices). However, these computer programs often do not form the main subject matter of a contract. Their role is only instrumental as they are needed for proper use of the item. If one assumes that even minimal amount of data is sufficient to classify a contract as a contract for the supply of digital content, then one has also to conclude that this qualification will apply to a significant number of everyday contracts. This is contrary to the idea put forward by the lawmakers as well as the guidelines issued by the *Directorate-General for Justice*. From both these points of view, contracts for the supply of digital content concern primarily the data (e.g. music or film files), not hardware. In my opinion, the questioned stance would seem also counter-intuitive to consumers. For this reason, *IaaS* contracts should not be classified as contracts for the supply of digital content. It is necessary to emphasise that this conclusion does not leave consumers unprotected. *IaaS* contract can be still regarded as a service contract within the meaning of Article 2 (6) of Consumer Rights Directive.

## 2.2. INTANGIBILITY OF THE MEDIUM

Although recital 19 of the CRD states that digital content can be supplied in any form, its medium is not irrelevant for consumer protection. This is also the perspective from which the Directive address the question of the classification of contracts related to digital content. Their nature has been a subject of legal controversy as to whether they should be regarded



as sales contracts or service contracts.<sup>31</sup> A detailed analysis of this matter would certainly exceed the volume limits for this article. However, such presentation is not necessary because the Directive has resolved this controversy by distinguishing two types of contracts for digital content. The distinction is based on the type of medium used to convey the data.

On the one hand, recital 19 of the CRD provides that digital content on a tangible medium should be perceived as goods within the meaning of Article 2 (4) thereof. This is an important statement in the light of Article 2 (7) of the Directive. According to this provision, a distance contract should be concluded under “*organised distance sales or service-provision scheme*”. The organisation requirement is usually met in the case of traders who act as professionals. Moreover, as indicated in Article 2 (5) of the CRD, a sales contract is a contract under which the trader transfers or undertakes to transfer the ownership of goods to the consumer in exchange for the payment of the price. Therefore, a contract for the supply of digital content on a tangible medium can be classified as a sales contract. Alternatively, if the contract for the supply of digital content on a tangible medium does not transfer ownership, it can be qualified as a service contract within the meaning of Article 2 (6) of the Directive. The latter conclusion also corresponds to the broad understanding of services in European law.<sup>32</sup>

On the other hand, the Directive does not specify the status of digital content supplied otherwise than on a tangible medium (for the purpose of this article, the term “digital content on an intangible medium” is used to designate such data). Instead, recital 19 of the CRD indicates that a contract for the supply of this type of digital content should not be treated as a sales contract or a service contract. Consequently, it cannot be classified as a distance contract. Some provisions on distance contracts explicitly refer also to contracts for the supply of digital content on an intangible medium.<sup>33</sup> However, in my opinion, this does not substantiate the identification of both contracts. Otherwise, it is difficult to justify separate rules for contracts for the supply of digital content on an intangible medium. If they

<sup>31</sup> See Bezáková D. (2013) The Consumer Rights Directive and its Implications for Consumer Protection Regarding Intangible Digital Content. *Masaryk University Journal of Law and Technology*, 7 (2), pp. 181–183.

<sup>32</sup> Article 50 – Consolidated version of the *Treaty on the Functioning of the European Union*, 13 December 2007 (2012/C-326/1). [online] Available from: [https://eur-lex.europa.eu/eli/treaty/tfeu\\_2012/oj](https://eur-lex.europa.eu/eli/treaty/tfeu_2012/oj) [Accessed 20 July 2019].

<sup>33</sup> See Articles 6 (2), 9 (2) (c), 14 (4) (b), 16 (m) of the CRD.

were simply distance contracts, there would be no need for additional provisions.

Moreover, sales and service contracts require a monetary remuneration from the consumer. As a result, the contracts in which the consumer does not pay for the goods or services as well as the contract in which they provide the trader with a non-monetary remuneration are excluded from the scope of Article 2 (5) and (6) of the CRD.<sup>34</sup> Consequently, consumer protection would be weakened if contracts for the supply of digital content on an intangible medium were classified as sales or service contracts. This results from the fact that consumer-oriented providers frequently do not charge a fee but instead derive their income from a non-monetary remuneration (see part 3.2.2.).

It should be emphasised that excluding contracts for the supply of digital content on an intangible medium from the notion of distance contracts is often more theoretical than practical. The situation of a consumer who has concluded a contract for the supply of digital content on an intangible medium is significantly similar to the situation of a consumer who has concluded a distance contract, in particular a distance service contract.<sup>35</sup> This results from the fact that the Directive in many provisions on the contracts for the supply of digital content on an intangible medium refers to the rules concerning the distance contracts. Therefore, the current regulation can be seen as a way of solving the problem of the classification of contracts related to digital content, even if it is somewhat counter-intuitive at first sight.

Although the term “digital content on an intangible medium” is only an expression of a conceptual convention used to describe the subject matter of a contract for the supply of data otherwise than by transferring the carrier on which it is stored, it needs some additional clarification.

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<sup>34</sup> Markou, Ch. (2017) Directive 2011/83/EU on Consumer Rights. In: Arno R. Lodder and Andrew D. Murray (eds.). *EU Regulation on E-Commerce*. Cheltenham-Northampton: Edward Elgar, pp. 187. See also Directorate-General for Justice. (2014) *DG Justice Guidance Document concerning Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council*. [online] pp. 8, 64. Available from: [https://ec.europa.eu/info/sites/info/files/crd\\_guidance\\_en\\_0.pdf](https://ec.europa.eu/info/sites/info/files/crd_guidance_en_0.pdf) [Accessed 16 July 2019].

<sup>35</sup> Markou, Ch. (2017) Directive 2011/83/EU on Consumer Rights. In: Arno R. Lodder and Andrew D. Murray (eds.). *EU Regulation on E-Commerce*. Cheltenham-Northampton: Edward Elgar, pp. 187–188.

In the context of electronic commerce and intellectual property, the word “medium” is usually understood as

*“a particular form of storage material for computer files, such as magnetic tape or discs” or more generally as “the material or form used by an artist, composer or writer”.*<sup>36</sup>

Consequently, the term implies physicality of the item containing the data. Similarly, recital 23 of the CRD defines the expression “durable medium” as a corporeal thing storing the information. The recital also lists examples of the medium which includes

*“paper, USB sticks, CD-ROMs, DVDs, memory cards [...], hard disk of computers as well as e-mails”.*

As a result, when taken literally, the expression “intangible medium” may seem self-contradictory, particularly if one considers that data is almost always stored on some kind of a tangible medium (e.g. a server), even though the user might not have direct access to this device. Therefore, it is necessary to highlight that the term “digital content on an intangible medium” is just a construct created in opposition to a more common notion of “digital content a (tangible) medium”. It aims to cover various ways in which the consumer can access the data without receiving goods within the meaning of Article 2 (3) of the Directive.

In my opinion, the main difference between contracts for the supply of digital content does not depend on the type of medium on which the data is stored, but rather on the way in which the consumer has access to it. If they can directly use digital content, then the situation is similar to possessing a good. The condition is met, for instance, in the case of a computer program stored on a CD, DVD or a USB stick which was given to a consumer. Recital 19 of the CRD further confirms this conclusion by treating digital content on a tangible medium as goods. However, if the consumer has only indirect access to data, the similarity to possessing a good becomes questionable. The consumer does not enjoy the full control of data because the use of it is always mediated by somebody else (e.g. a provider). The situation poses serious risks for them such as being

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<sup>36</sup> Oxford University Press. (2019) *Oxford Dictionaries*. [online] Oxford University Press. Available from: <https://en.oxforddictionaries.com/definition/medium> [Accessed 14 March 2019].

locked in the contract or losing confidential information. These drawbacks also justify a separate regulation of this type of agreements.

### 2.3. CLOUD COMPUTING AS “INTANGIBLE MEDIUM”

The question arises how to classify *SaaS* and *PaaS* contracts. In both cases, the consumer does not manage or control the cloud.<sup>37</sup> When it comes to *SaaS* contracts, the restriction also extends to the application used by the consumer. He can only change some of the settings to adjust the program to his needs. The provider in turn controls not only executable files, but also data files. The consumer is more independent in the case of *PaaS* contracts. They can manage the applications they deployed onto the cloud. However, the provider controls the environment in which the consumer runs their software. As a consequence, the consumer has only indirect access to digital content in *SaaS* and *PaaS* contracts. Therefore, they should be qualified as contracts for the supply of digital content on an intangible medium. The risks typical for these agreements confirm this conclusion (see part 3.2. of the article).

Moreover, the consumer accesses digital content in the cloud in a way similar to streaming, a method mentioned in recital 19 of the CRD. The latter process is characterised by dividing digital content into smaller parts which are sent to the user.<sup>38</sup> Due to the high speed of data transmission, the user can perceive the full content, though he never acquired it as a whole (e.g. he never gets a complete film or music file). In the case of cloud computing, the division of digital content is not necessary. However, the exploitation of the content also employs the process of transmission. The input data is sent to the provider's server which performs computational tasks and transmits the output back to the consumer. The exchange of the data is rapid enough to make the process seem as if the consumer used the main computer program in the cloud without any intermediaries. Despite this difference, I believe that cloud computing may be compared to streaming because both ways of exploiting digital content rely on data transmission and they do not allow the consumer to fully and directly access the content.

<sup>37</sup> Mell, P. and Grance, T. (2011) *The NIST Definition of Cloud Computing. Recommendations of the National Institute of Standards and Technology*. Gaithersburg: National Institute of Standards and Technology. [online] pp.2–3. Available from: <https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nistspecialpublication800-145.pdf> [Accessed 14 March 2019].

<sup>38</sup> Lu, Th. Y. (2018) Understanding Streaming and Copyright: A Comparison of the United States and European Regimes. *Journal of Business and Technology Law*, 13 (2), pp. 187–188.

Finally, recital 19 of the CRD treats contracts for the supply of digital content on an intangible medium as similar to contracts for the supply of water, gas or electricity. The conclusion operates on the assumption that the delivery of these items takes place in parts, i.e. by selling them in a limited volume or set quantity. The same reasoning applies to cloud computing contracts because the access to the computer program in the cloud is usually counted into units of time or amount of data sent through the Internet. It is worth noting that the metaphor of utility services is often employed to describe cloud services.<sup>39</sup>

### 3. INFORMATION DUTY

#### 3.1. GENERAL OVERVIEW

The Directive provides for two kinds of information duty depending on the type of contract concluded by the consumer. As indicated in Article 5 of the CRD, basic information duty applies to contracts other than distance contracts or off-premises contracts. Otherwise, if the consumer concludes a distance contract, Article 6 thereof imposes a detailed information duty on the trader. From this perspective, the classification of cloud computing contracts plays a decisive role in determining the proper information duty. The case of *IaaS* contracts is the easiest. Since they do not qualify as contracts for the supply of digital content, they should be treated as service contracts within the meaning of Article 2 (6) of the CRD and consequently also as distance contracts. However, a literal reading of recital 19 thereof could lead to a conclusion that *SaaS* and *PaaS* contracts do not fall under Article 2 (7) of the Directive. This would lead to a paradoxical outcome: the consumer would benefit from more intense protection in the agreements he concludes relatively rarely (*IaaS* contracts). At the same time, his protection would weaken when concluding cloud agreements typical for the consumer (*SaaS* and *PaaS* contracts). Fortunately, this stance is countered in Article 6 (2) of the CRD, according to which the rules on information duty in the case of distance contracts also apply

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<sup>39</sup> Bradshaw, S., Millard, Ch. and Walden, I. (2011) Contracts for Clouds: Comparison and Analysis of the Terms and Conditions of Cloud Computing Services. *International Journal of Law and Information Technology*, 19 (3), p. 190; Calloway, T. J. (2011) Cloud Computing, Clickwrap Agreements, and Limitation on Liability Clauses: A Perfect Storm? *Duke Law and Technology Review*, 11 (1), pp. 166–167; McCorry, D. (2014) With Cloud Technology, Who Owns Your Data?. *The Federal Courts Law Review*, 8 (1), p. 129; McGillivray, K. (2014) Conflicts in the Cloud: Contracts and Compliance with Data Protection Law in the EU. *Tulane Journal of Technology and Intellectual Property*, 17, pp. 252–253.

to contracts for the supply of digital content on an intangible medium. This reference should be considered accurate. Some of the information listed in Article 6 (1) of the CRD concern the general description of the contract (e.g. the main characteristics of the subject matter of the agreement, trader's identity or the price and the method of payment). In my opinion, in this respect, cloud computing contracts do not differ significantly from other contracts. Therefore, I would like to focus the considerations on the areas specific to cloud computing contracts. In addition, to better illustrate the specificity of information duty in the context of the above contracts, I would also like to refer to the surveys published in 2011 and 2012. Findings in these studies are consistent and remain valid. Thus, they constitute a valuable source of information.

### 3.2. FUNCTIONALITY AND RELEVANT INTEROPERABILITY

According to Article 6 (1) (r) and (s) of the CRD, the trader should inform the consumer about the functionality and the relevant interoperability of digital content. Consequently, some authors stress the significance of this provision, stating that otherwise it would be difficult to infer a similar information duty under Article 6 (1) (a) of the Directive.<sup>40</sup> Moreover, recital 19 thereof states information on the functionality and relevant interoperability "in addition" to general information duty. This seems to support the autonomy of the above requirements. However, in my opinion, the description of the main characteristics of cloud service contract – provided for in Article 6 (1) (a) of the CRD – could also partly include information about functionality and interoperability or at least their most important elements. As indicated in recital 19 of the Directive, the term "functionality" means the ways in which digital content can be used, while the expression "relevant interoperability" refers to the standard hardware and software environment with which digital content is compatible. Typical cloud computing contracts describe how the consumer can use the cloud and what actions are prohibited.<sup>41</sup> Moreover, the contracts often determine the availability of the cloud, either guaranteeing a specified

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<sup>40</sup> Markou, Ch. (2017) Directive 2011/83/EU on Consumer Rights. In: Arno R. Lodder and Andrew D. Murray (eds.). *EU Regulation on E-Commerce*. Cheltenham-Northampton: Edward Elgar, p. 200.

<sup>41</sup> Bradshaw, S., Millard, Ch. and Walden, I. (2011) Contracts for Clouds: Comparison and Analysis of the Terms and Conditions of Cloud Computing Services. *International Journal of Law and Information Technology*, 19 (3), pp. 200–202, 214–215.

level of performance or excluding such expectations.<sup>42</sup> Nevertheless, I agree that an explicit listing of this information requirement in Article 6 (1) (r) and (s) of the Directive is more consumer-friendly.

However, the information in Article 6 (1) (r) and (s) of the CRD is generic in nature. The explanation in recital 19 thereof also remains vague. More detailed requirements have been provided for in the guidelines issued by the *Directorate-General for Justice*, although it is also not cloud-specific but applies to digital content in general.<sup>43</sup> Therefore, the main obstacle lies in applying these concepts to cloud computing contracts. In particular, one may ask how detailed the information should be to provide the consumer with adequate knowledge and at the same time to not overwhelm them with information. In my opinion, the provider should notify the consumer at least about the type of cloud service model, the use of the cloud (including the list of prohibited actions), the minimal and optimal requirements to run software and the level of service availability.<sup>44</sup> Besides, the information about the functionality and the relevant interoperability should also refer to the data in the cloud. As indicated in Article 2 (11) of the Directive, data is the core element of the definition of digital content. In my opinion, five key areas need to be covered by the information duty, i.e. data integrity, portability, preservation, confidentiality and location. These are also the issues cloud users often struggle with. Interestingly, the *European Commission* in 2012 and 2015 emphasised the significance of most of the above areas.<sup>45</sup> Nonetheless, the Directive does not name them directly.

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<sup>42</sup> Op. cit., pp. 214–215.

<sup>43</sup> Directorate-General for Justice. (2014) *DG Justice Guidance Document concerning Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council*. [online] p. 64–68. Available from: [https://ec.europa.eu/info/sites/info/files/crd\\_guidance\\_en\\_0.pdf](https://ec.europa.eu/info/sites/info/files/crd_guidance_en_0.pdf) [Accessed 16 July 2019].

<sup>44</sup> Ibid.

<sup>45</sup> See European Commission. (2012) *Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions 'Unleashing the Potential of Cloud Computing in Europe'*. (COM(2012) 529 final). [online], p. 12. Available from: <http://ec.europa.eu/transparency/regdoc/rep/1/2012/EN/1-2012-529-EN-F1-1.Pdf> [Accessed 14 March 2019]; European Commission. (2015) *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'A Digital Single Market Strategy for Europe'* (COM(2015) 192 final). [online], pp. 14–15. Available from: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015DC0192&from=EN> [Accessed 14 March 2019].

### 3.2.1. DATA INTEGRITY

The survey from 2011 shows that cloud service providers often refrain from ensuring data integrity.<sup>46</sup> Instead, they pass on the task to the users.<sup>47</sup> Sometimes the provider may agree to perform backup services in exchange for an additional fee. Another study from 2012 also confirms that providers are reluctant to oblige to backup data.<sup>48</sup> Interestingly, the study indicates that providers usually backup twice or thrice data in the cloud. However, they do not want to undertake a contractual obligation. Probably, it results from the fact that severe failures happen even to the largest cloud service providers, such as *Google* or *Microsoft*.<sup>49</sup> If they had ensured that the data will not be corrupted due to a completely secure backup of files, they would be exposed to excessive liability that could prevent them from operating business. Moreover, the conclusion of a contract that does not oblige the provider to backup the data can sometimes be a reasonable decision for the consumer (for example, if the fee provided for in the contract is significantly lower).

On the other hand, the lack of backup obligation potentially leads to a situation where the consumer may not achieve the purpose for which he concluded the contract (e.g. reliable data storage). While avoiding taking on a general obligation to backup the data by the provider seems understandable, the consumer has to be aware of the risk of losing the data. Only then can they properly consider the situation, in particular the profitability of the agreement. Therefore, clear information about risks connected with cloud services plays a crucial role in the assessment of the contract.

### 3.2.2. DATA PORTABILITY

To switch the provider or to use a different computer program to process the information in the cloud, the consumer has to recover the data. However, it can be much more difficult than uploading the files in the first

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<sup>46</sup> Bradshaw, S., Millard, Ch. and Walden, I. (2011) Contracts for Clouds: Comparison and Analysis of the Terms and Conditions of Cloud Computing Services. *International Journal of Law and Information Technology*, 19 (3), pp. 203–204.

<sup>47</sup> Similarly Foster, T. N. (2013) Navigating Through the Fog of Cloud Computing Contracts. *John Marshall Journal of Information Technology and Privacy Law*, 30, p. 19.

<sup>48</sup> Hon, W. K., Millard, Ch. and Walden, I. (2012) Negotiating Cloud Contracts: Looking at Clouds from both Sides Now. *Stanford Technology Law Review*, 16 (1), pp. 94–95.

<sup>49</sup> See Calloway, T. J. (2011) Cloud Computing, Clickwrap Agreements, and Limitation on Liability Clauses: A Perfect Storm? *Duke Law and Technology Review*, 11 (1), pp. 170–171.



place. Some providers even try to disclaim any obligation to return the data.<sup>50</sup> The market itself also does not provide sufficient incentives for providers cooperation in the field of interoperability.<sup>51</sup> From this perspective, the information duty can prevent locking the consumer in the contract, which is a serious risk related to cloud computing.<sup>52</sup> There are two aspects of data portability that should be covered by the duty.

Firstly, some providers demand an extra fee for returning the data.<sup>53</sup> Although the survey from 2011 does not register this practice,<sup>54</sup> it is reported in the study from 2012.<sup>55</sup> Alternatively, the providers offer a new contract for assisted migration. Such practices may be justified by additional costs incurred by the provider to transfer the data from the cloud. Particularly, if the format in which the information is stored is not standardised or the amount of information that would be reformatted is significant for the provider. To illustrate this statement one can point out to *Facebook* which in 2012 collected over 1,5 petabytes (i.e. 1 million gigabytes) of photos or *Pinterest* which stored over 7,9 zettabytes (i.e. 1 trillion gigabytes) of data distributed between at least 18 million users.<sup>56</sup> However, the study from 2012 indicates that enterprise-oriented providers sometimes guarantee the return of the data in a standard format or a format chosen by the customer, especially if the amount of data is not significant.<sup>57</sup> Although this remark applies to business-to-business contracts, it points key factors that can be taken into account in the context of agreements concluded with consumers (i.e. the quality and quantity of returned data). Nevertheless, in the latter contracts, it can be expected

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<sup>50</sup> Foster, T. N. (2013) Navigating Through the Fog of Cloud Computing Contracts. *John Marshall Journal of Information Technology and Privacy Law*, 30, p. 24.

<sup>51</sup> Soma, J. et al. (2011) Chasing the Clouds without Getting Drenched. A Call for Fair Practices in Cloud Computing Services. *Journal of Technology Law and Policy*, 16, p. 209.

<sup>52</sup> Hon, W. K., Millard, Ch. and Walden, I. (2012) Negotiating Cloud Contracts: Looking at Clouds from both Sides Now. *Stanford Technology Law Review*, 16 (1), pp. 115–116.

<sup>53</sup> Carpenter, R. H. Jr. (2010) Walking from Cloud to Cloud: The Portability Issue in Cloud Computing. *Washington Journal of Law, Technology & Arts*, 6 (1), pp. 3, 5–7.

<sup>54</sup> Bradshaw, S., Millard, Ch. and Walden, I. (2011) Contracts for Clouds: Comparison and Analysis of the Terms and Conditions of Cloud Computing Services. *International Journal of Law and Information Technology*, 19 (3), pp. 204–205.

<sup>55</sup> Hon, W. K., Millard, Ch. and Walden, I. (2012) Negotiating Cloud Contracts: Looking at Clouds from both Sides Now. *Stanford Technology Law Review*, 16 (1), p. 97.

<sup>56</sup> McCorry, D. (2014) With Cloud Technology, Who Owns Your Data?. *The Federal Courts Law Review*, 8 (1), pp. 129–130.

<sup>57</sup> Hon, W. K., Millard, Ch. and Walden, I. (2012) Negotiating Cloud Contracts: Looking at Clouds from both Sides Now. *Stanford Technology Law Review*, 16 (1), p. 117.

that imbalance in bargaining power will make providers less inclined to meet consumers requests regarding the data format.

Another important factor to consider is the payment. If the contract provides for a fee, it seems reasonable for the consumer to expect that they will be able to download the data in a format readable by commonly used software, at least in a format similar to the one in which the data was uploaded. Therefore, in opinion, if the provider does not return the data in this format, they should at least inform the consumer. It should also be noted that cloud computing contracts often do not require the consumer to pay a fee.<sup>58</sup> However, this statement does not mean that the provider remains without any benefit from these agreements. He receives non-momentary remuneration from the consumer, for example by deriving income from creating a contextual advertisement.<sup>59</sup> From this point of view, it is important to reliably inform the consumer about the limitations of data portability, particularly about the costs of recovering digital content. Otherwise, the practice of cloud service providers can create an unjustified obstacle for the consumer to leave the contract. Moreover, such information is also beneficial for the provider because it eliminates potential doubts concerning the consumer's request to return the data in a specific form.

Secondly, retrieving the data can be difficult for the consumer. The survey from 2012 shows that the simplicity of switching may be a factor taken into account when choosing the provider.<sup>60</sup> However, the study also points out that most providers do not help in the transition. From a technical point of view, the consumer should know the format in which he will receive the files. The information is necessary to assess the readability of the data. Otherwise, he may recover the files that no other computer program will be able to process. Moreover, the providers often offer short timetables for returning data.<sup>61</sup> As a result, the consumer should consider a proper exit strategy. In particular, he should know if he can download the data after the contract has ended or if he has to do it in advance.

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<sup>58</sup> Bradshaw, S., Millard, Ch. and Walden, I. (2011) Contracts for Clouds: Comparison and Analysis of the Terms and Conditions of Cloud Computing Services. *International Journal of Law and Information Technology*, 19 (3), p. 196.

<sup>59</sup> Op. cit., p. 196. Similarly McCorry, D. (2014) With Cloud Technology, Who Owns Your Data? *The Federal Courts Law Review*, 8 (1), p. 146.

<sup>60</sup> Hon, W. K., Millard, Ch. and Walden, I. (2012) Negotiating Cloud Contracts: Looking at Clouds from both Sides Now. *Stanford Technology Law Review*, 16 (1), p. 116–117.

<sup>61</sup> McGillivray, K. (2014) Conflicts in the Cloud: Contracts and Compliance with Data Protection Law in the EU. *Tulane Journal of Technology and Intellectual Property*, 17, pp. 236–237.

### 3.2.3. DATA DELETION

In addition to the doubts resented above, the survey from 2011 shows that not all providers undertake to erase digital content after the contract has ended.<sup>62</sup> Consequently, the consumer risks that unauthorised persons will access his data. Moreover, it is difficult to determine if the data has actually been deleted from the cloud. The study from 2012 indicates that providers often only remove “pointers” to the data location, not the data itself.<sup>63</sup> Although the process leads to a gradual overwriting of the data over time, it is possible, at least to some extent, to recover the information after such deletion. It is well illustrated by the case of *Digitalocean* which did not delete the data of its customer.<sup>64</sup> Due to a malfunction, the files became viewable by other customers. The survey from 2012 also calls for educating consumers about the removal of data in the cloud.<sup>65</sup> I believe that detailed information on data deletion can be too complicated for an average user, particularly if it concerned purely technical aspects of data storage. This is important because the aim of information duty can be achieved only if the consumer can understand the information.<sup>66</sup> Nevertheless, he should be aware that the termination of the contract will not necessarily erase the data uploaded to the cloud.

### 3.2.4. DATA CONFIDENTIALITY

A number of cloud computing contracts extensively limit the protection of data confidentiality.<sup>67</sup> The survey from 2011 also found that the provider often obtains a licence for user-created content.<sup>68</sup> In most cases, such a licence is necessary for the proper functioning of the cloud. This results from the fact that efficient management of the cloud involves dynamic

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<sup>62</sup> Bradshaw, S., Millard, Ch. and Walden, I. (2011) Contracts for Clouds: Comparison and Analysis of the Terms and Conditions of Cloud Computing Services. *International Journal of Law and Information Technology*, 19 (3), pp. 204–205.

<sup>63</sup> Hon, W. K., Millard, Ch. and Walden, I. (2012) Negotiating Cloud Contracts: Looking at Clouds from both Sides Now. *Stanford Technology Law Review*, 16 (1), p. 118.

<sup>64</sup> McGillivray, K. (2014) Conflicts in the Cloud: Contracts and Compliance with Data Protection Law in the EU. *Tulane Journal of Technology and Intellectual Property*, 17, pp. 235–236.

<sup>65</sup> Hon, W. K., Millard, Ch. and Walden, I. (2012) Negotiating Cloud Contracts: Looking at Clouds from both Sides Now. *Stanford Technology Law Review*, 16 (1), p. 119.

<sup>66</sup> Weatherill, S. (2013) *EU Consumer Law and Policy*. 2nd ed. Cheltenham-Northampton: Edward Elgar, p. 93.

<sup>67</sup> Bradshaw, S., Millard, Ch. and Walden, I. (2011) Contracts for Clouds: Comparison and Analysis of the Terms and Conditions of Cloud Computing Services. *International Journal of Law and Information Technology*, 19 (3), pp. 205–206.

<sup>68</sup> Op. cit., pp. 208–209.

movement of the files between servers, which requires them to be copied to the destination and deleted at the source location. However, the scope of such licences can be broadly formulated and in some cases it includes, for example, the use of the content to advertise the provider.<sup>69</sup> This remark corresponds to the previous observation, according to which cloud service providers can also generate income from non-monetary remuneration. Some authors claim that the consumer should try to stipulate that the data in the cloud is his property and he forbids sharing it with provider's subsidiaries or third parties.<sup>70</sup> Although I agree with the clear definition of the person holding the rights to digital content, I am also sceptic about the possibility of actually imposing such a provision on the provider. The consumer often does not have sufficient bargaining power to discuss contractual terms. Nevertheless, he should be aware of these risks, at least to consciously choose the provider.

### 3.2.5. DATA LOCATION

Uncertainty of data location additionally reinforces the above doubts about cloud computing contracts. Not all providers inform consumers about the place where the data is stored or the information they give is not complete.<sup>71</sup> General Data Protection Regulation addresses some of these difficulties.<sup>72</sup> In particular, the Regulation, like its predecessor the Directive 95/46/EC, limits the transfer of protected data to third countries.<sup>73</sup> Some cloud service providers organisations even regard this as a contractual opportunity.<sup>74</sup> To attract users from Europe, they recommend disclosing the information if the data is located in the *European Economic Area*. Consequently, not only consumers, but also cloud service providers may

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<sup>69</sup> Similarly also McGillivray, K. (2014) Conflicts in the Cloud: Contracts and Compliance with Data Protection Law in the EU. *Tulane Journal of Technology and Intellectual Property*, 17, p. 234.

<sup>70</sup> Foster, T. N. (2013) Navigating Through the Fog of Cloud Computing Contracts. *John Marshall Journal of Information Technology and Privacy Law*, 30, p. 25.

<sup>71</sup> McGillivray, K. (2014) Conflicts in the Cloud: Contracts and Compliance with Data Protection Law in the EU. *Tulane Journal of Technology and Intellectual Property*, 17, pp. 232–233.

<sup>72</sup> Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation). *Official Journal of the European Union* (2016/L-119/1). Available from: <https://eur-lex.europa.eu/eli/reg/2016/679/oj> [Accessed 14 March 2019].

<sup>73</sup> Directive 95/46/EC of the European Parliament and of the Council 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 of the European Communities* (1995/L-281/31). Available from: <http://data.europa.eu/eli/dir/1995/46/oj> [Accessed 14 March 2019].

benefit from the information duty. However, it is necessary to stress that digital content is a broader concept than data protected under the Regulation. In my opinion, indicating the exact location of the data may be burdensome at least for some providers. Often files are transferred between several servers to optimise the use of the cloud. Therefore, a precise indication of the data location can be expensive for the providers, although, in practice, it depends on many factors (such as software used by the provider, cloud infrastructure or a number of users). Moreover, the information may also be of limited importance to the consumer due to the potential for its quick depreciation. Nevertheless, the consumer should be at least aware that his files may be stored in a foreign country, particularly if the country offers a lower level of protection, for example in the field of copyright. An optimal solution would be to oblige the provider to inform about the data location at the consumer's request. However, once again, consumers do not often have sufficient bargaining power to impose such provisions on the other party.

### 3.3. CODES OF CONDUCT AND ARBITRATION

According to Article 6 (1) (n) of the Directive, the trader should inform the consumer about the codes of conduct they use. The information may be valuable in the case of cloud computing contracts. In American literature, the development of "best practices" guidelines is seen as a potential way to effectively regulate these agreements,<sup>75</sup> particularly to facilitate data portability in the cloud.<sup>76</sup> In my opinion, the codes of conduct can be also helpful to define provider's policy on data preservation. This shows a connection to the information about the functionality and the relevant interoperability of digital content.

In addition, Article 6 (1) (t) of the CRD lists information about the possibility of recourse to an out-of-court complaint and redress

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<sup>74</sup> Hon, W. K., Millard, Ch. and Walden, I. (2012) Negotiating Cloud Contracts: Looking at Clouds from both Sides Now. *Stanford Technology Law Review*, 16 (1), p.100-101; McGillivray, K. (2014) Conflicts in the Cloud: Contracts and Compliance with Data Protection Law in the EU. *Tulane Journal of Technology and Intellectual Property*, 17, pp. 233-234.

<sup>75</sup> Celestine, C. M. (2013) "Cloudy" Skies, Bright Futures? In Defense of a Private Regulatory Scheme for Policing Cloud Computing. *Journal of Law, Technology and Policy*, 1, p. 159; Soma, J. et al. (2011) Chasing the Clouds without Getting Drenched. A Call for Fair Practices in Cloud Computing Services. *Journal of Technology Law and Policy*, 16, p. 212.

<sup>76</sup> Carpenter, R. H. Jr. (2010) Walking from Cloud to Cloud: The Portability Issue in Cloud Computing. *Washington Journal of Law, Technology & Arts*, 6 (1), pp. 12-13.

mechanism. The consumer may benefit from these procedures, particularly if they are less expensive or less formalised than court proceedings. However, they also pose a risk for them. At least at first sight, the consumer may be forced to enter the litigation initiated in a foreign forum. The survey from 2011 shows that cloud computing contracts often provide for such clauses.<sup>77</sup> Some agreements require arbitration for all disputes. Others specify cases where redress mechanism is mandatory. I agree that these provisions may be unfair within the meaning of Article 3 and Annex 1 (q) of the *Unfair Term in Consumers Contracts Directive*.<sup>78</sup> Consequently, even if the provider did not disclose the information about the mechanism, the consumer can defend himself against the resulting negative consequences.

### 3.4. CONFIRMATION AND BREACH OF INFORMATION DUTY

Apart from describing the content of the duty, the CRD also provides for incentives to inform the consumer. Firstly, in accordance with Article 8 (7) of the Directive, the trader should confirm the conclusion of the contract and all the information listed in Article 6 (1) thereof. The confirmation plays an important role in the case of contracts for the supply of digital content on an intangible medium. As stated in Article 14 (4) (b) (iii) of the CRD, the consumer who withdraws from the contracts bears no costs for the supply of the content, if the trader did not provide confirmation in line with Article 8 (7) thereof. The confirmation may have an even greater role in the case of cloud computing contracts. The study from 2011 shows that some providers actively change the agreements in a relatively short period of time.<sup>79</sup> More importantly, the providers often modify them unilaterally with only limited or no consumer knowledge.<sup>80</sup> Therefore, the possibility of proving the original text of the contract can be crucial from the point

<sup>77</sup> Bradshaw, S., Millard, Ch. and Walden, I. (2011) Contracts for Clouds: Comparison and Analysis of the Terms and Conditions of Cloud Computing Services. *International Journal of Law and Information Technology*, 19 (3), pp. 200, 222.

<sup>78</sup> Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts. *Official Journal of the European Communities* (1993/L-95/29). Available from: <http://data.europa.eu/eli/dir/1993/13/oj> [Accessed 14 March 2019]. See Bradshaw, S., Millard, Ch. and Walden, I. (2011) Contracts for Clouds: Comparison and Analysis of the Terms and Conditions of Cloud Computing Services. *International Journal of Law and Information Technology*, 19 (3), pp. 200, 222.

<sup>79</sup> Bradshaw, S., Millard, Ch. and Walden, I. (2011) Contracts for Clouds: Comparison and Analysis of the Terms and Conditions of Cloud Computing Services. *International Journal of Law and Information Technology*, 19 (3), pp. 190–191, 202, 215–217.

<sup>80</sup> Hon, W. K., Millard, Ch. and Walden, I. (2012) Negotiating Cloud Contracts: Looking at Clouds from both Sides Now. *Stanford Technology Law Review*, 16 (1), pp. 124–125.

of view of potential litigation. Otherwise, the consumer may encounter difficulty in proving the original provisions of the contract, for example the amount of the fee, the period of termination of the contract, the conditions of use or service level agreement.

Secondly, Article 6 (6) of the CRD frees the consumer from the obligation to pay the price if the information he received did not comply with Article 6 (1) (e) thereof. This may prevent the cloud service provider from charging an extra fee hidden in the “pay as you go” remuneration method. Moreover, Article 10 of the Directive extends the grace period if the trader does not inform the consumer about the right of withdrawal. It should also be noted that these provisions are an important step in addressing the problem of effective enforcement of consumer protection.<sup>81</sup>

Finally, Article 6 (9) of the Directive puts the burden of proof on the trader. Consequently, the consumer does not have to prove the information requirements set in Chapter IV of the CRD were not met. This creates an additional incentive for the provider to fulfil his duty. However, I agree that the lack of duty to inform the consumer about the burden of proof is perplexing.<sup>82</sup>

#### 4. SUMMARY

Consumer Rights Directive aims at providing a comprehensive and up-to-date legal framework for consumer protection. To achieve this goal, the Directive requires the trader to inform the consumer about the essential elements of the transaction. Furthermore, the CRD introduces a new type of contract, i.e. a contract for the supply of digital content. Documents issued by the *European Commission* indicate that the concepts underlying the Directive were supposed to address cloud computing contracts. From this point of view, the distinction of contracts for the supply of digital content does not significantly improve consumer protection. Firstly, not all cloud computing contracts provide for an obligation to supply data in digital form. Secondly, recital 19 of the CRD raises unnecessary doubts as to whether *SaaS* and *PaaS* contracts classify as distance contracts. Moreover, the Directive does not expressly respond to the main problems

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<sup>81</sup> Markou, Ch. (2017) Directive 2011/83/EU on Consumer Rights. In: Arno R. Lodder and Andrew D. Murray (eds.). *EU Regulation on E-Commerce*. Cheltenham-Northampton: Edward Elgar, p. 182.

<sup>82</sup> Weatherill, S. (2012) The Consumer Rights Directive: How and Why a Quest for “Coherence” Has (Largely) Failed. *Common Market Law Review*, 4, p. 1294.

identified in the context of the above contracts such as the risk of locking a consumer in a contract due to the lack of data portability or the ambiguity as to where the data is located or the persons who can use it.

However, the information duty, including information about the functionality and the relevant interoperability of digital content, can, to some extent, alleviate these deficiencies. The main obstacle to achieving this aim lies in the vagueness of both terms. This characteristic can be the greatest weakness or the greatest strength of the Directive, depending on the interpretation of these requirements. In my opinion, the provisions of the CRD can empower the consumer if the notion of functionality and relevant interoperability extends to the data in the cloud, in particular its confidentiality, integrity, location, portability and preservation. Such knowledge could increase consumers' awareness about the risks and limitations of cloud computing and thus allow them to make a reasonable decision about entering the contract. From this point of view, the Directive does not offer radically new provisions on consumer protection, but rather evolutionarily adapts already existing rules to changed conditions. Time will tell if such continuation will prove to be a sufficient instrument of protection.

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