ePrivacy Regulation
legal principles and impacts on the digital economy

March 21, 2018

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A study by the Istituto Italiano per la Privacy e la Valorizzazione dei Dati
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Introduction
On January 10, 2017, the European Commission published its proposed Regulation on Privacy and Electronic Communications (ePrivacy Regulation, hereinafter “ePR” or “Proposal”) which, once approved, will repeal and replace the current Directive 2002/58/EC (the so-called “ePrivacy Directive”).

The Proposal follows and complements the last important European legal instrument on privacy, i.e., the General Data Protection Regulation (hereafter “GDPR” or “Privacy Regulation”), and introduces an updated set of rules for electronic communications that complies with and supplements Recital 173 of the GDPR. The latter reads as follows: “[t]his Regulation should apply to all matters concerning the protection of fundamental rights and freedoms vis-à-vis the processing of personal data which are not subject to specific obligations with the same objective set out in Directive 2002/58/EC of the European Parliament and of the Council, including the obligations on the controller and the rights of natural persons. In order to clarify the relationship between this Regulation and Directive 2002/58/EC, the latter should be amended accordingly. Once this Regulation is adopted, Directive 2002/58/EC should be reviewed specifically to ensure consistency with this Regulation”.

Consistency with the provisions of the GDPR implies, for example, a similar sanctions regime and the decision to assign the responsibility for the application of the ePrivacy Regulation also to the authorities that supervise compliance with the GDPR. Furthermore, the data breach notification requirements envisaged by the ePR do not differ from the notification obligations provided for in Articles 33 and 34 of the GDPR.

Another important reason which led to the issuing of the Proposal lies in the European legislator’s intention to also extend the scope of application of Directive 2002/58/EC to so-called Over-The-Top service providers (hereinafter, “OTTs”), that is, those providers that offer services, content and applications through the Internet. From the point of view of the European Commission, in fact, traditional telephone services and text messages (SMS) have now been largely replaced by the functions offered by OTTs. Thus, it seems necessary to harmonize the regulation of digital communications services with the regulation initially reserved to “traditional” communications services.

The inclusion of OTTs within the scope of application of the ePR is largely due to the ability of metadata (e.g. date, time, duration, language, place and type of communication) to generate business for the same Over-The-Top services that collect them. In fact, by collecting and analyzing such data, OTTs benefit not only in terms of marketing, but also, in the case of big data analytics, in terms of profiling for predicting or modelling new trends and behaviors based on the study of online interactions and on how places, preferences, events, etc. are selected by users. For this reason, the Proposal emphasizes that: “In line with the ‘Better Regulation’ requirements, the Commission carried out an ex post Regulatory Fitness and Performance Program (“REFIT evaluation”) of the ePrivacy Directive. It follows from the evaluation that the objectives and principles of the current framework remain sound. However, important technological and economic developments have taken place in the market since the last revision of the ePrivacy Directive in 2009. Consumers and businesses increasingly rely on new internet-based services enabling inter-personal communications such as Voice over IP, instant messaging and web-based email services, instead of traditional communications services. These Over-the-Top communications services (“OTTs”) are in general not subject to the current EU electronic communications framework, including the ePrivacy

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Directive. Accordingly, the Directive has not kept pace with technological developments, resulting in a protection void of communications conveyed through new services.\(^2\)

In essence, the main objective of the Proposal is therefore to “provide a high level of privacy protection for users of electronic communications services, and at the same time a level playing field for all market players.”\(^3\)

Precisely because of this dual purpose, the first part of this study aims to identify, analyze and propose a solution to the two sets of critical issues that emerge in the ePR:

- First, when the Proposal is read together with the provisions of the GDPR, one may identify several contradictions. These concern: (i) the applicability of the ePR instead of the GDPR; (ii) the consent of the data subject; and (iii) more generally, the difference between the principle of data protection and that of confidentiality;
- Second, the introduction of OTTs within the ePrivacy Regulation would leave no room for the differentiation of such providers based on the electronic communications services they offer, given that their services are classified as electronic communications services by default.

The first part of the study takes also into consideration the most recent positions on the Proposal of the last Estonian presidency and of the current Bulgarian presidency. Both positions show how delicate is the on-going debate on the Proposal.

The second part of this study aims to highlight the centrality of electronic communications services in the digital economy and in the broader process of digital innovation with regard to the data associated with them (content and metadata). It does this by drawing attention to the conditions in which the processing may prove necessary for the functioning of markets and to allow the innovation processes to be in a position to take place.

The provision of digital services is increasingly characterized by the processing of data, of which (electronic) communication is an example. This raises, among other things, the question of the “legitimate interest” of the data controller. For this reason, this text will reflect on the appropriateness of a balancing act that take into account the survival needs of digital service providers - from OTTs to small and medium-sized businesses – without triggering risks for the users concerned (in particular for their dignity, identity, reputation, discrimination).

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\(^3\) Ibid.
Part 1

Section 1 – Background and definitions
To understand the Proposal for an ePrivacy Regulation within the broader European framework for the protection of personal data and the market of communication operators, we should first define some fundamental concepts that may be found in the Proposal. This will help us to gain a new and accurate point of view on the critical issues of the ePR, and on the possible solutions offered by the European regulatory framework (GDPR).

1.1 – Confidentiality or personal data protection?
First of all, the Proposal reiterates that: “The ePrivacy Directive ensures protection of fundamental rights and freedoms, more specifically respect for private life, confidentiality of communications and protection of personal data in the electronic communications sector. [...] It implements in the EU’s secondary law the fundamental right to respect for private life, with regard to communications, as enshrined in Article 7 of the Charter of Fundamental Rights of the European Union (“Charter”).”

The terms “confidentiality of communications” and “protection of personal data in the electronic communications sector”¹, however, express two different concepts:
- "confidentiality” means that the electronic communications data (i.e. content or metadata, see Para. 1.3), regardless of whether or not they are personal data, are protected from interferences, such as “listening, tapping, storing, monitoring, screening or other kinds of interception, surveillance or processing of electronic communications data, by persons other than the end-users”⁴, except where permitted by the Proposal. It could be said that “confidentiality” is the “privacy of communications”, that is the protection of the personal sphere of an individual communicating with another (or more individuals) freely and without interference/interception by third parties (see Art. 8 of the European Convention on Human Rights). In essence, “Confidentiality of electronic communications ensures that information exchanged between parties and the external elements of such communication, including when the information has been sent, from where, to whom, is not to be revealed to anyone other than to the parties involved in the communication”⁵;
- “protection of personal data”, on the other hand, does not only mean privacy, since it is not limited to the protection of personal data, understood as confidentiality and non-disclosure of the data. Data protection also ensures other rights, such as the rights to access, correct and delete the data, and to receive an appropriate notice, etc. (cf. Art. 8 of the Charter of Fundamental Rights of the European Union), as well as obligations for the data controller. In fact, as noted by the Article 29 Data Protection Working Party⁶, Convention 108 of the

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Council of Europe introduced the protection of personal data as a concept distinct from that of privacy (or confidentiality of communications, in this case). Obviously, the concept of confidentiality, understood as part of the protection of personal data, is present in the GDPR. Art. 5 of the latter Regulation contains several key principles, including that of the integrity and confidentiality of data (cf. Art. 5(1)(f) of the GDPR). This ensures an “appropriate security of personal data, including protection against unauthorized or unlawful processing and against accidental loss, destruction or damage, using appropriate technical or organizational measures”. Note that both the consultation of personal data and their disclosure or otherwise making the data available constitute a processing operation, according to Art. 4(2) of the GDPR.

1.2 – Metadata or content data?

Another distinction must be highlighted: that between metadata and content data. The ePrivacy Proposal distinguishes between “electronic communications content” meaning “content exchanged by means of electronic communications services, such as text, voice, videos, images, and sound” and “electronic communications metadata”, or “data processed in an electronic communications network for the purposes of transmitting, distributing or exchanging electronic communications content; including data used to trace and identify the source and destination of a communication, device location data generated while providing electronic communications services, and the date, time, duration and the type of communication”. In essence, metadata concern the nature of the content (language, location, transmission time, etc.), while the content represents the message itself, consisting of a set of information that may or may not be personal data (e.g. medical conditions, personal experiences, political opinions, sexual preferences, etc.). However, Recital 2 of the ePR clarifies that metadata can also be personal data where they include, for example, “the numbers called, the websites visited, geographical location, the time, date and duration of a call made by an individual etc.” since the aforementioned data allow “precise conclusions to be drawn regarding the private lives of the persons involved in the electronic communication, such as their social relationships, their habits and activities of everyday life, their interests, tastes etc.”.

Given these premises, metadata and content together constitute the so-called “electronic communications data”, which may be personal and even sensitive for the individuals involved in the communication but are not always constitute personal data. This is the case of data concerning legal entities or data related to machine-to-machine communications, which cannot be classified as personal data because they are raw data that would require a further processing after transmission to acquire the status of personal data.

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7 Convention No. 108 for the Protection of Individuals with regard to Automatic Processing of Personal Data, in https://www.coe.int/en/web/conventions/full-list/-/conventions/rms/0900001680078c45
1.3 – Data in transit or archived data?

Another fundamental distinction to be kept in mind when analyzing the ePR is the difference between the so-called “data in transit” and “stored data”.

Data in transit are data sent between two or more terminals (devices or servers) by means of an electronic communications network. An electronic communications network is defined by the European Electronic Communications Code (EECC)\textsuperscript{12} as “transmission systems, whether or not based on a permanent infrastructure or centralized administration capacity, and, where applicable, switching or routing equipment and other resources, including network elements which are not active, which permit the conveyance of signals by wire, radio, optical or other electromagnetic means, including satellite networks, fixed (circuit- and packet-switched, including Internet) and mobile terrestrial networks, electricity cable systems, to the extent that they are used for the purpose of transmitting signals, networks used for radio and television broadcasting, and cable television networks, irrespective of the type of information conveyed”\textsuperscript{13}.

Instead, stored data are those data that are retained following a transmission, including content data. Pursuant to Art. 7(1) of the Proposal, the latter type of stored data must be deleted or anonymized by the electronic communications service provider “after receipt of electronic communication content by the intended recipient or recipients. Such data may be recorded or stored by the end-users or by a third party entrusted by them to record, store or otherwise process such data, in accordance with Regulation (EU) 2016/679”. Likewise, “the provider of the electronic communications service shall erase electronic communications metadata or make that data anonymous when it is no longer needed for the purpose of the transmission of a communication”\textsuperscript{14}. However, Art. 6 of the Proposal provides for exceptions to the immediate erasure of electronic communications data, which will be discussed in Paragraph 2.3.

After having analyzed the possibility to process “electronic communications data” from the point of view of the communications service provider, we need to focus on the user requesting the service. With regard to communications services between two parties, such as instant messaging, it is clear that the deletion of content by the service provider does not prevent the user from storing it on his/her own terminal. Nonetheless, today there are several services that have the character of an electronic communication, but where the entities communicating are the user and the server providing the service. A real-time translation application can be used as an example. The application records the content of a conversation in order to translate it simultaneously into a foreign language. If, however, the service provider must delete the content once the server has sent the translation to the user’s terminal, the user will no longer have access to the translated content and will not be able to reproduce it as he/she wishes. Another examples of that of a screen reader for the visually impaired that translate written texts into vocal texts. Once the communication has been completed, i.e. the text has been transformed into an audio and sent by the provider to be listened to, an immediate deletion of the content will entail that the user cannot replay the message several times and must repeat the translation operation from the beginning, thus losing the actual benefits of the tools used.


1.4 – Traditional communications operators or applications and services based on independent networks and cloud systems?

A final important differentiation is that between traditional communications services providers and providers of applications/service based on independent networks or cloud systems.

The former providers, such as mobile and landline operators and Internet service providers, offer services on dedicated networks and infrastructures. In most cases, these operators are the owners of the infrastructures used to provide the communications services.

Alongside this traditional model of “communication operators”, however, is the exponential increase in communications services based on the use of the Internet, made possible by so-called Over-The-Top (OTT) operators that do not own the communication infrastructures but provide applications and content directly to end-users using so-called Internet protocols and the connection supplied by the traditional operators. As a consequence, the latter operators increasingly provide the means of transmission (the network) and less and less the electronic communications services, while OTTs offer the final service directly to the user and possibly store the data in the cloud to make it easier to provide the service even when the connection to the network changes. In particular, the so-called Cloud networking allows for a new approach to the functions and services of the network (connectivity, security, management and control) through an actual virtualization of the network and the infrastructure. Therefore, OTTs use the systems provided by traditional operators, but they do not provide or manage (at least for the time being) the networks/infrastructure or the access to the Internet.

Section 2 – Over-The-Top service providers (OTT) and electronic communications

The considerations presented above are intended to provide an overview on the concept of Over-The-Top services (OTT) in relation to electronic communications services. In fact, it is in impossible to disregard the definitions of the concepts covered in Section 1, if one wants to properly analyze ePR from the point of view of those affected by the regulation.

For this reason, we have decided to begin also this Section with another important definition, i.e. that of OTT. According to the BEREC,15 OTTs are providers of services, content and applications through the Internet, and which give rise to an innovative type of communication. This innovative type of communication is characterized by an added value compared to the mere transmission of content from point A to point B, typically provided by traditional operators. This means that the term OTT does not indicate a particular type of service, but rather a method of supplying it, by means of the Internet. This method is independent from the Internet access service provider, which is a different entity than the OTT.

OTTs, therefore, provide services, including communications services. But, what is an “electronic communications service”? The concept was introduced by Art. 4(1)(b) of the Proposal by reference to Art. 2(4) of the Proposed European Electronic Communications Code (hereinafter, the “EECC”).16 The latter defines an “electronic communications service” as “a service normally provided for remuneration via electronic communications networks, which encompass “internet access services” as defined in Article 2(2) of Regulation (EU) 2015/2120; and/or “interpersonal communications services”; and/or services consisting wholly or mainly in the conveyance of signals on electronic communications networks, including telecommunications services and such as transmission services.

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in networks used for the provision of machine-to-machine services and for broadcasting, but excludes services providing, or exercising editorial control over, content transmitted using electronic communications networks and services."

2.1 – OTTs and electronic communications services

In light of the definition of the EECC, there are two fundamental elements that characterize an electronic communications service:

1. It is normally provided for a fee. However, the remuneration is not necessarily of an economic nature, since it may also consist in the provision of personal data for the benefit of the service provider who will then use it on the market. The remuneration criterion, in essence, implies that the electronic communications service is based on an economic activity regardless of the “bargaining chip” used to obtain the service. In fact, the European Court of Justice has specified that, pursuant to Art. 2(a) of Directive 2000/31/EC, “information society services” shall cover “the provision of online information services for which the service provider is remunerated, not by the recipient, but by income generated by advertisements posted on a website.”\(^{17}\)

2. The electronic communications service encompasses “Internet access service and/or […] interpersonal communications service” as well as services “consisting wholly or mainly in the conveyance of signals”. As already mentioned in Paragraph 1.4 above, OTTs do not provide access to the Internet, but use it to offer their products/services, which can also be of interpersonal communication (e.g. instant messaging, email, VOIP, etc.). Interpersonal communication, in fact, consists of a “service normally provided for remuneration that enables direct interpersonal and interactive exchange of information via electronic communications networks between a finite number of persons, whereby the persons initiating or participating in the communication determine its recipient(s); it does not include services which enable interpersonal and interactive communication merely as a minor ancillary feature that is intrinsically linked to another service”\(^{18}\).

However, can the other services offered by Over-The-Tops, i.e., those that do not concern interpersonal communications, be defined as “electronic communications services”? To answer this question, it is necessary to reflect upon the use of the term “mainly” in the definition of “electronic communications services”, which are services “consisting wholly or mainly in the conveyance of signals” pursuant to Art. 2(4) of the EECC. According to the Proposed Code, if the service does not consist wholly in the conveyance of signals, the term “mainly” implies that the elements of the service concerning the conveyance of signals must be evaluated in relation to those that do not concern it. In other words, it is necessary to make a quantification (rather than a more appropriate qualification) to decide whether a service represents an electronic communication or not.

We return to the helpful example of the simultaneous translation service, provided by an OTT. One could say that, by simplification, the OTT operates as follows:

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\(^{17}\) Para 30, Case C-291/13, Court of Justice of the European Union, September 11, 2014, in http://curia.europa.eu/juris/document/document.jsf;jsessionid=9ea7d2dc30d62e1d948523c64c73847880b584114941.e34KaxiLC3qMe40Rch05axyNahj0?text=\&docid=157524&pageIndex=0&doclang=it&mode=lst&dir=&occ=first\&part=1\&cid=356650

a) It sends voice content in language X from the user’s device to the server;
b) It transforms the voice content in language X into text;
c) It translates the text into language Y;
d) It transforms the text in language Y into voice content in language Y;
e) It sends the voice content in language Y from the server to the user’s device.

Therefore, it is clear that the transmission of content is fundamental for the provision of the service, since without it there would be no start or end to the translation process. However, the elements of the service not related to the transmission itself – that is, the translation process – are not merely accessories with respect to the transmission of the initial vocal content. On the contrary, they represent the fundamental aim of the transmission. Therefore, even if from a quantitative point of view the elements of the transmission appear to be greater, in reality from a qualitative point of view it is the additional elements that constitute the true nature of the service.

If you define all the services offered by OTTs that are “mainly” based on the conveyance of signals as “electronic communications services” then you should assume that the example of the translator is a mere transmission of content from point A (server) to point B (user). Instead, it is quite clear that the transmission starts from point B to get to A, the content then undergoes several transformations once it has arrived at A and is sent back to B in another form. The transformations of the content constitute the fundamental aim of the transmission and qualitatively characterize and define the type of service. From this perspective, it seems then that the translation service in question cannot be regarded as an electronic communications service.

Another example may further clarify the above explanation. Modern cars are equipped with what is called On-Board Diagnostics Generation Two (OBD-II), i.e., a connection system that collects and transmits signals related to fuel level, speed, temperature, etc. These parameters are often combined with the data collected by accelerometers and GPS data from mobile phones in order to provide the driver with information about the vehicle and the its journey, directly on driver’s device. Given that the OBD-II is not an “internet access service” nor an “interpersonal communications service”, the key question is the following: can it be considered as a service consisting “mainly in the conveyance of signals”? Prima facie, the answer seems to be yes. The OBD-II actually works as follows:

a) It sends data to the appropriate server;
b) The data are analyzed, and useful information is produced for the driver;
c) The information is sent to the driver on his/her phone.

However, while the transmission of information to the server and the subsequent transmission to the driver’s device requires the conveyance of signals, is this the true purpose of the service? The conveyance of signals is an essential part of the service, but the essential purpose is another, that is, to provide information about the vehicle. From a quantitative perspective, the transmission prevails. Nonetheless, from a qualitative perspective, the service does not consist “wholly or mainly in the conveyance of signals”.

Moreover, in the impact assessment that accompanies the Proposal, an OTT is defined as an Internet platform that allows for the exchange of communications between the members of the platform itself, in the form of voice, text or data. This type of provider does not control the transmission of messages but depends on the Internet connection of the users for the

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transmission of the messages\textsuperscript{20}. This is a substantial difference between the communications operator that deals with the mere conveyance of signals, thus falling within the scope of the ePR, and the type of innovative communications offered by OTTs. In fact, while, in some cases, the function of these innovative communications is similar to that provided by traditional operators (e.g., email, VOIP, instant messaging chat, etc.), the services offered by OTTs do not seem to be comparable by default to electronic communications services (as defined in Art. 2(4) of the EECC), at least from a functional point of view. It is precisely the concept of “functionality” that, in the next paragraph, will allow us to better understand if and when OTTs can be assimilated to electronic communications services and when, instead, their function is different from that of this type of service - as in the aforementioned cases of the simultaneous translator and OBD-II.

In short, the problem seems to be twofold. On the one hand, it is difficult to reconcile OTT services with the main characteristics of electronic communications services, as defined by Art. 2(4) of the EECC. On the other hand, there is the problem of understanding what the functions of the service actually are and whether they are similar to a conveyance of signals - a point on which we have already expressed some doubts - or to interpersonal communications. However, also in this case, one should evaluate the circumstances in which the communications take place, that is, whether the communication constitutes the primary purpose or whether it is instead a “\textit{minor ancillary feature that is intrinsically linked to another service}”\textsuperscript{21}.

2.2 – Classification of OTTs

Recital 11 of the Proposal emphasizes that: “\textit{Services used for communications purposes and the technical means of their delivery have evolved considerably. End-users increasingly replace traditional voice telephony, text messages (SMS) and electronic mail conveyance services in favor of functionally equivalent online services such as Voice over IP, messaging services and web-based email services. In order to ensure an effective and equal protection of end-users when using functionally equivalent services...}”.

To understand the concept of functional equivalence, it is necessary to use the aforementioned BEREC report on OTTs\textsuperscript{22}. The latter proposes the following taxonomy of Over-The-Top servicess:

- a) OTT-0, \textit{i.e.}, all services that qualify as electronic communications services (e.g. VOIP services);
- b) OTT-1, \textit{i.e.}, services that do not qualify as electronic communications services, but that could potentially compete with traditional electronic communications services;
- c) OTT-2, \textit{i.e.}, services that do not constitute electronic communications services and do not compete with them (e.g. e-commerce, music/video streaming services).

Therefore, BEREC does not assimilate all OTTs to electronic communications services by default and recognizes that as a result of technological evolution it is increasingly difficult to distinguish between electronic communications services as originally defined by Directive 2002/58/EC and other services arising from the use of the Internet. In this sense, it is interesting to note the passage in which the European regulator itself defines the coverage of OTT services by the traditional definition of

\textsuperscript{20} Ibid., “\textit{An over-the-top (OTT) service provider is essentially an Internet platform that allows communications to be exchanged by the members of the platform, in the form of voice, text or data. These providers do not control the transmission of the messages, but rely on end-users' Internet connections for the messages to be relayed}”.

\textsuperscript{21} Ibid.

\textsuperscript{22} BEREC, \textit{Report on OTT services}, January 2016.
electronic communications services as “unclear”, and acknowledges that it is difficult to decide whether to qualify an OTT service as an electronic communications service\(^{23}\).

It is rather clear that the rules introduced by the ePR may be applied to the OTT-0 category if, for example, one thinks of Internet telephony services or messaging services that replace text messages (SMS) (\emph{e.g.}, Apple iMessage). In fact, in these cases, the services offered by OTTs have the same function as those offered by traditional communications operators.

The situation of the OTT-1 category, however, slightly more complex. Services that apparently seem to belong to the OTT-0 category often conceal a different function. Programs such as Skype, WhatsApp or Viber, for example, allow users to make calls over the Internet, but only within the community of users who have downloaded the app. Although it cannot be considered functionally identical to traditional electronic communications services, this type of OTT service can nonetheless compete with traditional electronic communications services (mobile and fixed telephony) and, for this reason, could fall within the OTT-1 category.

However, in Paragraph 2.1 above we have highlighted that, in the impact assessment that accompanies the Proposal\(^{24}\), OTTs do not control the transmission of messages. Instead, the transit of the communication it offers depends on the Internet connection of the users, managed by traditional communications operators\(^{25}\). This is clarified in the opinion of the Dutch Trade and Industry Appeals Tribunal\(^{26}\), which stated that the email services offered by Gmail and Hotmail cannot be considered electronic communications services because the mail service provider (in this case, Google and Microsoft) cannot be considered the party that transmits the signals that make the mail service possible. Therefore, in spite of the apparent simplification of the BEREC taxonomy, at the European level there are still legal questions on the classification of OTTS, which resulted in diametrically opposed national positions. For example, while the AGCOM (the Italian Communications Authority) believes that text messages (SMS) can be replaced by instant messaging and emails\(^{27}\) (OTT-0), the French authority (ARCEP) does not share the same opinion as it believes that instant messaging does not enjoy the same interoperability as a text messaging service,\(^{28}\) and therefore is not functionally similar to it - thus resulting qualifying as an OTT-1.

However, it is undeniable that, regardless of whether these services belong to the OTT-0 or 1 category, they are interpersonal communications services, as defined by Art. 2(5) of the EECC.

Furthermore, an interesting AGCOM survey on electronic communications\(^{29}\) highlighted how OTTs and traditional operators are treated differently, underlining that pursuant to the current Directive

\(^{23}\) Ibid., “As it is unclear to what extent the current ECS definition covers some types of OTT services, different conclusions can be drawn regarding whether specific OTT services are qualified as ECS”.


\(^{25}\) Ibid., “An over-the-top (OTT) service provider is essentially an Internet platform that allows communications to be exchanged by the members of the platform, in the form of voice, text or data. These providers do not control the transmission of the messages but rely on end-users’ Internet connections for the messages to be relayed”.


\(^{27}\) Annex A to Resolution No. 165/16/CONS, Comprehensive survey concerning the development of digital platforms and electronic communications services, consumer communications services, in https://www.agcom.it/documents/10179/5054337/Allegato+29-6-2016/9d7168c6-6205-47e7-a2d9-23cecd1df59?version=1.0

\(^{28}\) BEREC, Report on OTT services, January 2016.

\(^{29}\) Annex A to Resolution No. 165/16/CONS, Comprehensive survey concerning the development of digital platforms and electronic communications services, consumer communications services, in
2002/58/EC “while OTTs indirectly use the resources of traditional mobile operators, they must neither bear the costs involved nor comply with the rules imposed by sector regulations. Overall, the disparity could confer a number of advantages on OTT operators offering the services covered by the Survey, allowing them in principle at least to offer them to consumers under more advantageous conditions than those offered by mobile network operators subject to more burdensome regulations”. That said - and note the use of the conditional “could confer” and the expression “in principle at least” - the outcome of the examination of the regulatory and market framework by the AGCOM highlights “that to remove the said asymmetries completely or in part - for example by also stipulating obligations for OTT entities or decreasing the burden on traditional operators - could slow down or even stop the development of the most innovative electronic communications services, for example in the event that obligations imposed on OTTs should prove to be disproportionate. Regulation of the sector could therefore risk interrupting the virtuous cycle of innovation that characterizes this sector. The Survey emphasizes, therefore, the need to evaluate with particular caution the appropriateness of establishing symmetrical obligations.”

As for the OTT-2 category, it includes all those services that do not belong to the two previous categories, in particular streaming and audio/video downloading services, such as YouTube, Netflix and Spotify, as well as online gaming, e-commerce and search engines. The particularity of this category lies in the fact that, although it is not comparable to that of electronic communications services (OTT-0) or services potentially competing with traditional ones (OTT-1), it falls within other regulatory regimes that concern, for example, Internet Information Services (IIS), market competitiveness, copyright, cybersecurity, data portability, etc.

The OTT-2 category seems to fully fall within that of services “that provide content transmitted using electronic communications networks and services or that exercise editorial control over such content” and for this reason they are excluded from the traditional definition of “electronic communications service”. However, some OTT-2 services operate as intermediaries, facilitating interactions between users (e.g., chatting in online gaming). In this case, then, the OTT operates similarly to an interpersonal communications service that is ancillary to other services. Thus, pursuant to Recital 11 of the ePR, it must protect the confidentiality of communications. However, as a “minor ancillary feature that is intrinsically linked to another service”, it does not fall under the definition of an “electronic communications service”, as defined by Art. 2(4) of the EECC.

2.3 – OTTs and the delicate balance between the ePrivacy Regulation and the GDPR

“This proposal reviews the ePrivacy Directive, foreseeing in the Digital Single Market Strategy objectives and ensuring consistency with the General Data Protection Regulation.”

The first paragraph of the ePR introduces the new regulation in the area of electronic communications, immediately establishing the close link with the provisions of the GDPR, which the Proposal is intended to supplement. The Explanatory Memorandum that precedes the legislative content of the Proposal, in fact, describes the relationships between electronic communications, OTTs and personal

https://www.agcom.it/documents/10179/5054337/Allegato+29-6-2016/9d7168c6-6205-47e7-a2d9-23ccde1df59?version=1.0

30 Ibid.
31 Ibid.
32 Ibid.
data protection: “To ensure the effective legal protection of respect for privacy and communications, an extension of scope to cover OTT providers is necessary. While several popular OTT providers already comply, or partially comply with the principle of confidentiality of communications, the protection of fundamental rights cannot be left to self-regulation by industry. (...) Regarding the enforcement of this Regulation, it relies on the supervisory authorities and the consistency mechanism of the General Data Protection Regulation”\textsuperscript{35}.

Based on the above passage, it is possible to make some observations regarding OTTs and the relationship they have with the confidentiality and protection of personal data, recalling the distinction we have outlined in Paragraph 1.1 above.

First of all, the Proposal justifies the introduction of OTTs within the ePrivacy rules based on the need to protect fundamental rights, as such protection “cannot be left to self-regulation by industry”. With regard to confidentiality, it has already been stressed how it is actually necessary to apply Art. 5 of the Proposal to OTTs and to all entities involved in communications allowing the transit of data, including internet access suppliers (see Paragraph 1.5). However, as regards the conveyance of signals, OTTs provide their digital services on the Internet, but the transit of data is made possible by access providers and traditional operators - unless the OTT has its own telecommunications infrastructure, which is not yet the case. Similarly, in the case of interpersonal communications, the confidentiality conditions of Art. 5 of the ePR apply, even where interpersonal communications services are ancillary to other services - as may be the case in the OTT-2 category, which includes, for example, online gaming (ref. Recital 11 of the Proposal).

However, as regards the regulation on personal data protection, the GDPR introduces so-called Codes of Conduct\textsuperscript{36} with the express purpose to “calibrate the obligations of controllers and processors, taking into account the risk likely to result from the processing for the rights and freedoms of natural persons.”\textsuperscript{37}. It therefore seems difficult to understand the reasons that led the European legislator to exclude OTTs being subject to the Codes of Conduct in order to guarantee, through self-regulation, the protection of fundamental rights concerning the protection of personal data. Furthermore, pursuant to Art. 40(9) of the GDPR, the Codes can be approved by the Commission to have general validity throughout the European Union, which would allow for uniform application of the rules of the Code in the various member countries. Art. 40(3) of the GDPR further provides for the possibility of adhering to the Code of Conduct also for “controllers or processors that are not subject to this Regulation pursuant to Article 3 in order to provide appropriate safeguards within the framework of personal data transfers to third countries or international organizations”. In a context such as that of OTTs, which offer their services using the Internet, which is by its nature devoid of defined spatiality, a Code of Conduct could guarantee protection of the rights of the data subject. Furthermore, we should then not underestimate the certification mechanism, in particular for those OTTs that offer M2M communications services, which could well demonstrate respect of the obligations imposed by the GDPR through the certification mechanism established by Art. 42 of the GDPR. At the same time, also thesers could benefit from such an approach, as the certifications


\textsuperscript{36} Art. 40 of Regulation (EU) 2016/679 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), in http://eur-lex.europa.eu/legal-content/IT/TXT/HTML/?uri=CELEX:32016R0679&from=IT

\textsuperscript{37} Recital 98 of Regulation (EU) 2016/679 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), in http://eur-lex.europa.eu/legal-content/IT/TXT/HTML/?uri=CELEX:32016R0679&from=IT
allow “data subjects to quickly determine the level of data protection of the corresponding products and services”\textsuperscript{38}. It is no coincidence, after all, that Art. 32(3) of the GDPR, concerning the Security of processing, states: “Adherence to an approved code of conduct as referred to in Article 40 or an approved certification mechanism as referred to in Article 42 may be used as an element by which to demonstrate compliance” with the Security requirements set forth in Art. 32.

The main perplexity therefore relates to the reasons why the ePR superimposes data protection on confidentiality, and introduces new rules for new entities whose difficult-to-classify activities seem to be more appropriately regulated by the GDPR. It is clearly necessary to also guarantee the confidentiality of communications for the services offered by OTTs, in accordance with Art. 5 of the ePR. However, with regard to data protection, OTTs should be subject to the GDPR when they offer services that are not “functionally equivalent” to those offered by traditional operators. The Explanatory Memorandum to the Proposal states that “the Directive [2002/58/EC] has not kept pace with technological developments, resulting in a void of protection of communications conveyed through new services”\textsuperscript{39}. One of the key principles of the ePrivacy Regulation is to establish “a level playing field for all market operators”\textsuperscript{40}, which (theoretically) could provide services with equivalent functionality and, therefore, could compete with each other. However, guaranteeing a level playing field for providers of electronic communications services also means ensuring that those identified as “suppliers” actually provide the services referred to in Art. 2(4) of the EECC in a situation of mutual competitiveness. In light of the difficulty to categorize OTTs - analyzed in paragraph 2.2 – the latter do not seem to fully fall by default within the definitions of the ePR. Thus, it seems difficult to assimilate the functionalities of their services to those offered by traditional suppliers - even when they belong to the OTT-0 and 1 categories. The GDPR is addressed to data controllers and processors regardless of the type of services offered. In addition, it guarantees the highest level of protection with regard to personal data protection. Thus, regulating the data processing activities OTTs under the GDPR would mean preventing and combating the risks for the processing of electronic communications data in the highest possible form. This could done without necessarily having to classify services which, by their nature, are increasingly complex from a functional point of view. The fact that OTT services resemble traditional ones does not in fact imply the need (nor the possibility) to extend the obligations for traditional operators to OTTs. The potential risk would actually be that of paralyzing the development of the market itself - as we will explain in Part 2 of this study.

A practical example of what is affirmed above is represented by the digital assistant that many latest generation cars are equipped with, a service which allow the driver to make phone calls and read/send text messages (SMS) without having to handle the smartphone.

Art. 6(3) of the ePR establishes the following: “Providers of the electronic communications services may process electronic communications content only:

(a) for the sole purpose of the provision of a specific service to an end-user, if the end-user or end-users concerned have given their consent to the processing of their electronic communications

\textsuperscript{38} Recital 100 of Regulation (EU) 2016/679 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), in http://eur-lex.europa.eu/legal-content/IT/TXT/HTML/?uri=CELEX:32016R0679&from=IT


\textsuperscript{40} Ibid.
content and the provision of that service cannot be fulfilled without the processing of such content; or

(b) if all end-users concerned have given their consent to the processing of their electronic communications content for one or more specified purposes that cannot be fulfilled by processing information that is made anonymous, and the provider has consulted the supervisory authority. Points (2) and (3) of Article 36 of Regulation (EU) 2016/679 shall apply to the consultation of the supervisory authority”.

Returning to the example of the digital assistant in the car, think about how (and whether) it would be possible for this tool to recognize a “known user” (usual driver) and distinguish it from a “new user” (driver 2, 3, 4 etc.). And, again, if the automobile was made available by a company (legal entity), according to the mechanisms of consent as defined by Art. 4(11) of the GDPR, such consent should be provided by the legal representative of the company (natural person). This would pose the problem of the processing of the electronic communications data of the company employees who use the vehicle equipped with a digital assistant, but did not provide a “free, specific, informed and unequivocal manifestation of desire for the data processing”41. The provisions of Art. 6(3) of the ePR for OTT services would entail further consent requirements, and would trigger continuous requests for consent. In essence, the user would be subject to an actual consent bombing – with a drastic decline in use of the digital assistant in services such as car sharing, for example.

The impact assessment accompanying the Proposal42 clearly states that by virtue of the submission of OTTs to the ePR they will no longer be able to process personal data in accordance with all the legal bases provided by the GDPR, but will only be able to process the electronic communications data with the user’s consent43, as provided by Art. 6(2) and (3) of the Proposal. As we have already mentioned, Art. 6(2) reiterates and adjusts the requirement of consent also for the processing of metadata:

“Providers of electronic communications services may process electronic communications metadata if:

(a) it is necessary to meet mandatory quality of service requirements pursuant to [Directive establishing the European Electronic Communications Code] or Regulation (EU) 2015/212011 for the duration necessary for that purpose; or

(b) it is necessary for billing, calculating interconnection payments, detecting or stopping fraudulent, or abusive use of, or subscription to, electronic communications services; or

(c) the end-user concerned has given his or her consent to the processing of his or her communications metadata for one or more specified purposes, including for the provision of specific services to such end-users, provided that the purpose or purposes concerned could not be fulfilled by processing information that is made anonymous”.


43 Ibid., “As a consequence of the extension of the scope, OTT providers will no longer be able to rely on all legal grounds for processing personal data under the GDPR and could process communication data only with the consent of the users”
To date, many of the OTTs that provide some of the most popular OTT services already process data on the basis of user consent pursuant to Art. 6(1)(a) of the GDPR or on one of the other grounds specified in Art. 6 of the GDPR. They also implement security and transparency measures (e.g., so-called end-to-end encryption), in accordance with the principle set forth in Art. 5(1)(f) of the GDPR. For this reason, it is not clear why the European legislator has decided to submit OTTs to a lex specialis in terms of the legal basis for the processing, excluding all those grounds mentioned in Art. 6(b) to (f) of the GDPR, which include the vital interests of the data subject, the legitimate interest of the controller, the fulfillment of a legal obligation by the controller, etc.

As repeatedly mentioned, OTTs offer services that are more complex and articulated than the mere conveyance of signals or interpersonal communications within the traditional meaning. Consider, for example, the services offered by machine learning, such as simultaneous translation, electronic calendars, digital personal assistants. In all of these cases, OTTs should be able to process electronic communications data including on the basis of all the legal grounds set forth by the GDPR - including the legitimate interest. A very good example is that of a search engine, which is an OTT, and processes personal data by indexing\(^{44}\) without asking for the consent of all the data subjects concerned by the indexed results of the search. This is because the processing is based on Art. 6(1)(f).\(^{45}\)

Disregarding consent and without prejudice to invoicing, maintaining quality standards and prevention/repression of fraud\(^{46}\), OTTs may process electronic communications data only if:

"(a) it is necessary to achieve the transmission of the communication, for the duration necessary for that purpose; or

(b) it is necessary to maintain or restore the security of electronic communications networks and services or detect technical faults and/or errors in the transmission of electronic communications, for the duration necessary for that purpose"\(^{47}\).

In this sense, as already anticipated in Paragraph 1.3 above, Art. 7 provides for the deletion of electronic communications data after that the intended recipients have received the content of the electronic communications and when the metadata is no longer necessary to transmit the communication.

"Consent as a legal basis was analyzed in Opinion 15/2011 of the Working Party on the definition of consent. The main conclusions of the opinion are that consent is one of several reasons that legitimize the processing of personal data, rather than the main legal basis. It plays an important role, but does not exclude the possibility of invoking, depending on the context, other, perhaps more appropriate,


legal bases from the perspective both of the data processor and of the data subject”\(^\text{48}\). Notwithstanding, there is no reference in the ePR. to processing as “necessary for the execution of a contract to which the data subject is a party” pursuant to Art. 6(1)(b) of the GDPR. This despite the fact that, as it has been repeatedly mentioned, the transmission of the communication does not constitute the essence or the main functionality of the services offered by OTTs, which use the Internet access offered by traditional providers in order to allow the transit of data (metadata and content), but base a large part of their services on the processing of electronic communications data, without which the service itself could not be provided (e.g., simultaneous translation of voice messages, reading of text messages (SMS), routing of calls to a vehicle communications system, etc.). Likewise, there is no reference to the legitimate interest in spite of the fact that “The right to protection of personal data is not an absolute prerogative but must be considered in the light of its social function and must be reconciled with other fundamental rights, in accordance with the principle of proportionality”\(^\text{49}\). In this perspective, the protection of electronic communications data should be placed in a context in which the processing is necessary for the relationships established between the data subjects and the data controllers, such as the legitimate interest, which may also consist of measurements and analyses of the use of the services provided to the user in order to improve the quality of the service offered. Moreover, as the ePR recalls in Recital 17, “The processing of electronic communications data can be useful for businesses, consumers and society as a whole”.

In substance, while Art. 6 of the GDPR provides various legal basis for the processing in addition to the consent of the data subject, Art. 6 of the ePR authorizes most of the processing of electronic communications data only with the consent of the end user, which must also be requested of the user on a six-monthly basis pursuant to Art. 9(3) of the ePR.

The overlap between the legal framework introduced by the GDPR and the \textit{lex specialis} for the electronic communications sector extended to OTTs thus ends up creating unjustified differences in the regulation of personal data processing.

In December 2017, the Estonian Presidency has expressed\(^\text{50}\) similar concerns, and has advocated for the inclusion in Art. 6(2) of further legal basis for metadata processing and has suggested to make the provisions of Art. 6(3) more flexible. In particular, the Presidency has proposed a series of adaptations that align the ePR with the GDPR with regard to the inclusion of further legal bases in Art. 6(2):

- Art. 6(2)(b): legitimacy of processing necessary for the execution of the contract of which the user is a party;
- Art. 6(2)(ba): legitimacy of processing necessary to fulfill a legal obligation to which the data controller is subject;
- Art. 6(2)(c): extension of the consent requirement in the event that the user is a legal entity - not only natural persons, therefore;
- Art. 6(2)(d): legitimacy of processing necessary to safeguard the vital interests of the data subject;
- Art. 6(2)(e): legitimacy processing necessary for archiving purposes in the interests of the public, scientific or historical research or for statistical purposes (in line with the provisions of Art. 9(2)(j) of the GDPR).


\(^{49}\) Recital 4 of Regulation (EU) 2016/679 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), in \url{http://eur-lex.europa.eu/legal-content/IT/TXT/HTML/?uri=CELEX:32016R0679&from=IT}

The proposals for changes relating to Art. 6(3) of the Proposal are also interesting and are threefold:

- An amendment to Art. 6(3)(a): to include legal entities in the concept of “end user”;
- An addition of a new paragraph - Art. 6(3)(aa) - in order to provide legitimacy to processing based on an explicit individual service request by the user who provided his consent, as long as the interests and fundamental rights of the user are adequately protected (e.g. indexing functionality, personal digital assistant, translation or inclusion services for people with disabilities);
- The inclusion of an obligation for the controller carrying out the processing on the basis of Art. 6(3)(b), so as to the controller must carry out an impact assessment pursuant to Art. 36(2)(e) of the GDPR.

Starting from the positions of the Estonian Presidency, the Bulgarian Presidency also decided to broaden the legal basis for processing pursuant to Art. 6(2), including legitimate interest, “additional purposes” as identified by Art. 6(4) of the GDPR and in general all those situations in which the processing would be considered legitimate by the GDPR.

Part 2

Section 3 – The ePrivacy Regulation in the context of the digital economy

3.1 – Towards an economy based on data processing

As stated in the first part of this study, electronic communications services 52 are closely linked to the right to confidentiality of communications between natural persons, a right protected by the Charter of Fundamental Rights of the European Union. Confidentiality of communications may also concern content that is of economic, business, scientific or military nature. With regard to this last aspect, the Proposal also focuses on the protection of fundamental rights and freedoms of legal persons. 53

At the same time, we should note that the GDPR, in the case contemplated in Art. 6(1)(f), considers processing to be lawful if it “is necessary for the purposes of the legitimate interests pursued by the controller or by a third party, except where such interests are overridden by the interests or fundamental rights and freedoms of the data subject which require protection of personal data, in particular where the data subject is a child” 54 55. In bringing the formulation of the law within the economic sphere, legitimate interest can also be found in the freedom of economic initiative – the “freedom to conduct a business”, also recognized by the Charter of Fundamental Rights (Art. 16) – which could be realized through the processing of personal data, without requiring the prior consent of the data subject. From this point of view, the need for processing is explained by the survival needs of controller, which may justify his business carried out with “shared” data, 56 to the extent that this does not involve a risk for the data subjects (dignity, identity, reputation, discrimination) 57. Transformations of the economy resulting from technological evolutions and the increasing use of data as “raw material” have outlined new conditions in which processing becomes necessary and legitimate. Such a standard appears to be tailored to the “two-part” structure of the market of services and content offered on the Internet; the same standard can also represent the legal reference for those economic phenomena – such as the economy based on data (data economy), where the purpose of the processing is to provide the service – which outline a scenario in which the data processing is identified with the main economic activity of the companies (core activity) – for example, companies

52 The proposed directive creating the European Electronic Communications Code defines ‘electronic communications services’ as services normally provided for remuneration via electronic communications networks, which encompasses ‘internet access service’ as defined in Article 2(2) of Regulation (EU) 2015/2120; and/or ‘interpersonal communications service’; and/or services consisting wholly or mainly in the conveyance of signals on electronic communications networks, including telecommunications services and such as transmission services in networks used for the provision of machine-to-machine services and for broadcasting, but excludes services providing, or exercising editorial control over, content transmitted using electronic communications networks and services; cf. EUROPEAN COMMISSION, Com(2016) 590 final, October 12, 2016.


54 An example in this sense could be given by the measurement of social phenomena for purposes of general interest. Cf. F. GIANNOTTI, Big data e social mining. I dati, a saperli ascoltare, raccontano storie [Big data and social mining. Data, knowing how to listen to them and tell stories], in AA.VV., Misurare l’innovazione digitale. Gli indicatori di successo delle politiche di innovazione territoriale Venezia [Measuring digital innovation. Indicators of success of innovation policies in the Venice region], Ed. Cà Foscari, 2015, 49-61. The author recalls a well-known study that showed how, in the case of search engines, the hypothesis of a correlation between searches concerning the flu phenomenon and the number of individuals who actually had flu symptoms has proven useful for predicting the impact of this phenomenon in the near future. This can allow health workers to more effectively cope with seasonal epidemics.

55 Standard substantially similar to that provided for by Directive 95/46/EC, Art. 7(1).

56 Data other than “particular categories of personal data” and “personal data relating to criminal convictions and offenses”, mentioned respectively in Articles 9 and 10 of the general regulation.

57 In this sense, R. MOTRONI, Il Regolamento (UE) 2016/679 tra soggetti giuridici del mercato ed oggetto economico [Regulation (EU) 2016/679 between market legal entities and economic aim], in federalismi.it, No. 13, 2017.
that operate in the digital economy – or in any case is an essential part of the economic activity without which it could not be carried out.

3.2 Digital personal assistants

The software applications that allow for interaction between a human being and a machine describe a digital service that uses a service (intermediate) of electronic communications between a human being and a machine, but which is also based on machine learning, a process that is essential to providing a final service such as computer assistance. On the other hand, such service is an emblematic example of the data economy, that is, an economy, in which the output offered is based on the processing of data generated by the interaction between the user and the assistant (machine), and therefore on the electronic communications data describing the “relationship” of information exchange that is established over time between those parties.

In market terms, it should be noted that digital assistant services are likely to make a significant contribution to the growth of digital services with the competing offers of Siri (Apple), Google Assistant, Cortana (Microsoft), Alexa (Amazon), Bixby (Samsung). Even HTC and Sony will integrate this technology in their products in the future. The most promising developments of this type of application will concern domestic assistants (e.g., LG Smart Hub Robot and Olly Emotech), which recognize the user and perceive his/her mood by analyzing the tone of voice. Even the market for personal driving assistants is showing appreciable progress. According to experiments carried out by Watson Conversation Services of IBM and Toyota Yui, these technologies establish a personal bond with the driver, reminding him of events occurred during past travels and processing the perceived emotions.

In terms of legal regulations, it should be noted that the Proposal for a regulation on privacy and electronic communications provides for the processing of data in cases in which, without the processing, the service could not be provided (e.g., digital assistants). However, it should also be noted that the Proposal maintains the rule of prior consent that, in this context, appears to be superfluous, since the request for use of the service represents in itself a consent to the underlying processing of personal data. In this last respect, it is necessary – but also sufficient – that the final

58 The digital assistance service also allows communication between people via email, text messages and phone calls.
60 Cf. in this regard Article 6, Para. 3, letter (a).
service provider provides to the users/data subjects the information that are normally required by law, specifying that the purpose of the processing is precisely the provision of the service.

The rule of prior consent appears to be a barrier to the development of personal assistant services – and, more generally, to the development of the digital services market – if we consider that, in cases where the assistant supports communication between people, the consent should be be also given by the recipients. Such a mechanism appears rather difficult to implement.

2.3 – Behavioral advertising

The experience of the markets of the provision of services and content on the Internet has defined a supply model similar to the one developed in the context of traditional media. In this respect, the Internet economy is an example of a two-sided market that, on the one hand, provides services and content to users free of charge, and, on the other, supplies advertising space to companies, thus rewarding Internet service providers (for example, a search engine or a social platform most likely use the profile of their users to sell advertising spaces). Advertising spaces are sold to advertisers (companies active in all economic sectors). These spaces often would include messages that are tailored to the preferences and interests of the individual Internet users. Preferences and interests are deduced from the collection of behavioral data by various means (keywords entered in search engines, which are a useful clue to understanding the intentions of users; cookies used to know the level of visits to sites, content selected, purchases made; social plug-ins used to acquire data on the relationships that users develop within social media), and their analysis. Thus, the main activity of providers of Internet services and content, which, by their characteristics and purposes could not be carried out - other than at a loss - without the regular and systematic monitoring of users. In fact, the obtantion of behavioral data from the the users through the aforementioned means will be useful to advertisers for their sales performance and their branding objectives (reputation, visibility, brand development, reputation) over the medium to long term.

The processing of user data therefore produces economic benefits for advertisers, who can get their commercial messages to them. Based on the data collected, it is assumed that users have an interest in the products and services covered by the communication. Investments in behavioral advertising, on the other hand, represent the main source of financing for the services and content offered on the Internet. Such a business model has led, on the advertising sales side, to a complex chain of economic activities involving, in addition to the demand and supply of advertising space, providers that perform intermediation functions.

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61 The collection and processing of behavioral data is carried out by providers of behavioral advertising (advertising network providers). Online behavioral advertising (also known as “interest-based advertising”) consists of making available on websites messages on products and services in line with the interests of individual users who have visited those sites. For an in-depth analysis of the businesses involved in behavioral advertising, see ARTICLE 29 WORKING PARTY, Opinion 2/2010 on online behavioral advertising, June 22, 2010.

62 In this regard, cf. COMMUNICATIONS REGULATORY AUTHORITY, Indagine conoscitiva sul settore dei servizi internet e sulla pubblicità online [Comprehensive Survey on the Internet Services and Online Advertising Sector], Resolution 19/14/CONS, Annex A, https://www.agcom.m.it/indagine-conoscitiva-sul-settore-dei-servizi-internet-e-della-pubblicita-online, which describes the parties that perform the intermediation activity: agents (third parties authorized, on the basis of a mandate agreement, to sell advertising space available on the sites of content providers and services), ad networks (intermediaries that aggregate or buy advertising space from a set of websites and sell it to advertisers or media centers, withholding a share of the revenues of each sale), ad exchanges (technology platforms through which web content and services providers, ad networks and advertisers can buy and sell advertising space; those platforms automate the determination of prices and purchases, through online auctions in real time), affiliation networks (entities that act as intermediaries between the owners of affiliated websites and online retailers, through affiliation programs), media centers (entities that negotiate and/or buy advertising space on the Internet on behalf of their customers – advertisers – directly from publishers, or through ad networks and ad exchanges).
Moreover, the remuneration mechanism linked to the two-sided architecture of the market raised the question of the effect of the data processing on the users concerned. In this regard, it should be noted that while a part of the economic literature has documented a negative response to online ads by users with privacy demands, on the other hand, much research attests that a significant number of Internet users express a preference for free solutions and commercial messages oriented to their interests.

(i) European consumers who access the web on a daily basis (at least three hours a day in 52% of cases) are more satisfied with their free experiences supported by ads than paid ones (63% vs. 40%).
(ii) Two-thirds of users browsing the Internet would be willing to share their data to receive targeted advertising.

Source: GFK Europe online: an experience driven by advertising, September 2017.

Research by the Interactive Advertising Bureau (IAB) shows how behavioral data improve the popularity and efficiency of digital advertising campaigns, and thus represent a crucial resource for the entire media sector and for the digital economy. A broader economic analysis reveals the strong contribution of digital behavioral advertising to investments, related economic activities and employment. It is an industry that has evolved rapidly, from an emerging industry, which in 1999 represented a marginal share of total advertising (0.5%), to a major form of advertising in Europe that in 2016 recorded just under € 42 billion in investments.

3.4 – Digital services

The trajectories of the economy in recent years have been characterized in terms of process and product innovation, leveraging data processing, processing means and methods (sensors, cloud computing solutions, Hadoop technologies, machine learning) and communication platforms (social media, email, sharing sites). The experience of companies – from over-the-tops to start-ups – once again reveals the intrinsic tensions of the digital economy that confronts their economic activities, based on the analysis of personal data, with the protection of that data.

Digital services\textsuperscript{63} (e.g., real time translation, software applications for motor vehicles, email) often implies data processing that entails the communication of that data to a number of recipients\textsuperscript{64}. This structuring of digital services, therefore, includes “electronic communications services” which, depending on the case, coincide with the final services (e.g. email) or are an intermediate resource, used to provide a final service (different from the electronic communications). Moreover, digital services are also characterized by provision of storage services for communications data which, in many cases, appear necessary to users. This category includes interpersonal communications services, of which email and communications through social platforms are emblematic examples if we consider that these services involve control, by the data subjects, of the retention of messages (and data) as a function of their needs for re-use. On this point, we should note that the data retention and deletion requirements for electronic communications data specified in the Proposal (Art. 7) are unclear; these

\textsuperscript{63} Digital services are characterized by the use of information technologies; they, therefore, identify themselves with software that reproduce in an automated way the operations that make up the service itself. Compared to services provided in traditional ways, the software replaces, wholly or in part, operations carried out off-line.

\textsuperscript{64} The communication of data, that is to make the data available in any form to a certain number of entities different from the data subject and the parties involved in the processing (controller, processor, employees) is itself processing.
requirements do not exclude the recording or preservation of the content of electronic communications – as such data may be recorded or stored by end users or by a third party appointed by them – but provide for the deletion or anonymization of metadata if they are no longer needed in order to transmit a communication.

Digital services that integrate the function of communication are often subject to screening, which triggers the question of their compatibility with the right to privacy. In this regard, we should point out how, in the provision of email services, the aforementioned processing is a practice of the providers aimed at identifying software that may affect the quality of the services themselves (malware) or spamming practices that often lead to saturation of the capacity of their servers with consequences on the continuity of the service. In examining the legal foundations that legitimize this practice, the Article 29 Working Party considered that the screening of the content of messages, carried out by the email providers to detect viruses and spams, can be justified by the obligation to adopt appropriate technical and organizational measures to guarantee the security of the services provided, pursuant to Art. 4 of Directive 2002/58/EC. This orientation seems to be confirmed in Article 6, Para. 1, letter (b) of the ePR.

3.5 – Digital services for private transport

One of the main areas of application of the so-called Internet of Things is in the automotive industry, through the supplying digital services to drivers (vehicle location, safety indicators derived from driving statistics, accident assistance, distances traveled and journey times). Smart car services – which for some time have also been applied in insurance offer models based on travel and on the pay-for-use formula – rely on the collection of data by devices installed on cars that are able to encode the position and performance of the car. Furthermore, it should be noted that the information on the vehicle, if associated with information on its owner, becomes personal data.

The provision of smart car services, therefore, entails an economic activity that makes use of the processing of personal data and that includes the communication of results (output) on the device of the interested party (e.g. smartphone) through a software application. This and other services related to the Internet of Things (IOT) phenomenon (smart metering, smart city, smart environment) portray a transformation of the digital economy with very promising prospects in terms of economic growth; in this regard, the Milan Polytechnic Institute estimated a 30% growth of the IOT market between 2014 and 2015 (ref. figure), to which the smart car segment contributed approximately 14%. Similar trends in the IOT market in general, and in the smart car segment, in particular, once again highlight the issue of regulating the processing of personal data that could introduce barriers to economic growth. From this point of view, the opt-in approach of the Proposal does not seem to grasp the need for a readjustment of the rules in connection with the changes induced by the digital economy. These changes should lead to a reflection on the correct framing of the needs for confidentiality and service that do not appear to be in conflict. On this point, it should be noted that the confidentiality of electronic communications (data confidentiality during human-machine transmissions) is compatible

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67 Cf., for example, the Vodafone “V-auto by Vodafone” offer, http://news.vodafone.it/2017/11/07/nasce-v-by-vodafone/
with the processing of communications data that the machine operates for its learning and to provide the service.

In light of the dynamics and mechanisms discussed above, it appears necessary to safeguard the confidentiality of communications, also to allow digital service providers to maintain user trust. However, at the same time, we need to ask whether the regulatory framework of the ePR can guarantee the growth rates indicated above and the well-being of the users themselves. Although there are currently no estimates, it is plausible to assume, at least, a reduction in the variety of services and a consequent slowdown in growth.

3.6 – Economy of platforms, SMEs and innovative start-ups

Within an economy that has chosen to be based on its use of data, the production of new knowledge for product and process innovation relies on access to data, including of a personal nature. The interpenetration of information and communication technologies (ICT) in civil society – as well as in the “inanimate” environment (of things) – has increased the opportunities for the “codification of reality” (phenomena, places, events, behaviors) with the production of large and heterogeneous masses of data (big data). In this context, ICTs assume the role of analysis and processing tools with high performance computing, which enable the simultaneous processing of large amounts of data and produce many information and knowledge outputs.

The “platform economy”\(^{69}\) – of which the (controversial) Uber case is, for better or for worse, a paradigmatic example – is a particular expression of the digital economy (and of the data economy) that is characterized by the meeting (mediated by platforms) of parties with specific needs and interests, and by the “network effects” that derive from such meeting. In this context, where big data is formed and collected, processing is a fundamental function for the provision of ‘underlying’

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\(^{69}\) This expression encompasses those economic activities based on the use of Internet platforms that allow for an immediate encounter between a user who requires a good or service and another that is able to provide it by making available resources (goods, skills, time) that it has.
services by companies that are predominantly small and medium-sized (SMEs, start-ups). However, it should not be forgotten that the collection and processing of data and the production of informative and cognitive output are also core activities, that is to say, activities that take on an autonomous economic value, thus assuming a business connotation (data analytics).^{70}

The platform economy --defined by its sharing features, collaboration, and peer-to-peer relationships--has therefore introduced an alternative business model to the traditional one, whose value, derived from data processing, can be used as an exchange leverage in several respects (advertising, innovative services, data analytics products).^{71} This model is generating significant revenues in the area of car sharing services, rentals of real estate, the direct purchase of goods and services. It thus shows consumers’ drive towards solutions perceived as more affordable.^{72} The services provided through the Postmates and Handy platforms are particularly representative examples of this trend; one has increased the number of shipments from 500,000 to 1.5 million in 30 weeks, from 2014 to 2015, the other has grown from 3 million to 52 million dollars in turnover in two years.^{73}

It is estimated that in the next few years the platform economy can reach a global value of 110 billion dollars.


The following table shows the employment implications of the platform economy:^{74}

<table>
<thead>
<tr>
<th>Platform</th>
<th>Sector</th>
<th>Workforce</th>
<th>Geographic region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uber</td>
<td>Transport</td>
<td>160,000</td>
<td>International</td>
</tr>
<tr>
<td>Lyft</td>
<td>Transport</td>
<td>50,000</td>
<td>USA</td>
</tr>
<tr>
<td>Sidecar</td>
<td>Transport</td>
<td>6,000</td>
<td>USA</td>
</tr>
<tr>
<td>Handy</td>
<td>Home services</td>
<td>5,000</td>
<td>USA</td>
</tr>
<tr>
<td>TaskRabbit</td>
<td>Home services</td>
<td>30,000</td>
<td>International</td>
</tr>
<tr>
<td>Care.com</td>
<td>Home services</td>
<td>6,600,000</td>
<td>International</td>
</tr>
<tr>
<td>Postmates</td>
<td>Delivery</td>
<td>10,000</td>
<td>USA</td>
</tr>
<tr>
<td>Amazon Mech Turk</td>
<td>Intellectual work</td>
<td>500,000</td>
<td>International</td>
</tr>
<tr>
<td>Crowdflower</td>
<td>Intellectual work</td>
<td>5,000,000</td>
<td>International</td>
</tr>
<tr>
<td>Crowdsource Clickworker</td>
<td>Intellectual work</td>
<td>8,000,000</td>
<td>International</td>
</tr>
</tbody>
</table>


^{70} In this regard, E. Dagnino, People Analytics: lavoro e tutele al tempo del management tramite big data [Work and management time through big data], in Labour & Law Issues, No. 1, 2017.

^{71} Cf. E. Peedemon, Google, Facebook, i nuovi monopoli e gli ideologi della Silicon Valley (Google, Facebook, the new Silicon Valley monopolies and the ideologues), in Scientific journal on digital cultures, vol 1, No. 2, 2016, 27-34. A. Passoni, Economia delle piattaforme e architettura digitale delle scelte. Appunti sull’alternativa cooperativa [Economics of platforms and digital architecture of choices. Notes on the cooperative alternative], available at http://archiviomarini.sp.unipi.it/688/.


^{74} The table is taken from D. Guarascio S., S. Sacchi, Digitizzazione, automazione e futuro del lavoro [Digitalization, automation and the future of work], Rome, Ed. INAPP, 2017.
Section 4 – Reflections on the balancing of interests in the digital economy

The ePR regulates the interception of electronic communications data, including in addition to the already known cases of interference – in which a party other than those involved in the communication listens to calls, scans electronic communications data (content and metadata), retains data for purposes other than the functionality of the communications service – the monitoring of the behavior of Internet users through the collection of data on their web experiences (sites visited, time spent, preferences expressed, purchases made). In this regard, Article 5 of the Proposal prohibits all interference with electronic communications data including monitoring that, in this perspective, would concern behavioral data allocated within a client-server and machine-to-machine electronic communications system.

This last case again highlights the question of the regulation of processing related to non-economic transactions that occur on the Internet on the users’ side (access to the Internet implies for users the transfer of information on their profile so that operators and advertisers can use it to offer them personalized services and to provide specific and therefore more effective messages, respectively). In an economy in which digital services are based on the availability of data, including that of a personal nature, the stipulation of a preventive consent mechanism for the processing of such data (opt-in) appears to be less and less relevant and likely to introduce an element of alteration of the normal functioning of the market, requiring, for this reason, a new vision of the balancing of interests that can take into account the needs of financial stability for digital service providers, elevating them to the rank of “legitimate interest”. The European Commission’s hypothesis regarding the setting of privacy parameters through browsers offers the possibility to regulate the user’s privacy settings, preventing service reduction or even the introduction of paid solutions for users.

In this perspective, the request for the service by a user should bring to consider his/her consent to the processing of data as implicit, if this constitutes an inseparable component of such service. In this regard, it should be noted that the Commission’s proposal permits processing of the contents of electronic communications (i.e., digital services that integrate the electronic communications function) in cases where the provision of a service cannot take place without such processing (Art. 6, par. 3, letter (a)). In such cases, instead, the consent of the user or users is still requested, but it seems superfluous, being it implicit in the request for the service.

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75 In this regard, cf. EUROPEAN COMMISSION, Com(2017) 10 final, cited in Recital 15: “Interception of electronic communications data may occur, for example, when someone other than the communicating parties, listens to calls, reads, screens or stores the content of electronic communications, or the associated metadata for purposes other than the exchange of communications. Interception also occurs when third parties monitor websites visited, timing of the visits, interaction with others, etc., without the consent of the end-user concerned.”

76 In this regard, cf. COMMUNICATIONS REGULATORY AUTHORITY, Indagine conoscitiva sul settore dei servizi internet e sulla pubblicità online [Comprehensive Survey on the Internet Services and Online Advertising Sector], cit.
Conclusions and recommendations
The objective of this work was to identify if and when the services offered by OTTs can be assimilated to electronic communications services pursuant to Art. 2(4) of the EECC and, therefore, be subject to the rules introduced by the ePR. In addition, the study intended to highlight some concrete effects that the proposed Regulation, as it currently stands, would have on the digital economy.

In conclusion, it can be said that the current formulation of the Proposal does not effectively identify and resolve the complexities deriving from the nature of OTT services, which end up being subject to rules that are not consistent with the provisions and objectives of the GDPR and assimilated to electronic communications services whose definition is now obsolete in light of the innovations introduced by Internet-based services.

While the objective of the Proposal to protect the confidentiality of electronic communications remains desirable and necessary, it appears problematic that the legal basis for the processing of electronic communications data is only based (except for rare exceptions under Art. 6 of the ePR) on the consent of the user to whom the service is provided. In this sense, if the extension of the ePrivacy regulation to OTTs is maintained, it would be advisable to consider an extension of the legal bases for the processing of electronic communications data by these and other suppliers, as already provided for by Art. 6(1) and (4) of the GDPR. From this point of view, the dynamics of the digital economy (multi-sided markets and remuneration of providers, functionality of processing for the core activities of companies) lead to a reflection on the balancing of markets and data protection. Otherwise, the risk would be that of a reduction in Internet services or the introduction of paid solutions for Internet users. With regard to this last aspect, it would be useful to question the repercussions of the decision of search engines and social networks to establish prices for access to its services.