

# Public consultation on the draft BEREC Report on the Internet Ecosystem

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## Consulta: Public consultation on the draft BEREC Report on the Internet Ecosystem

### Our work and context

The **Law and Technology Research Institute of Recife - IP.rec**<sup>1</sup> is an independent Brazilian research and advocacy think tank that focuses on analyzing policies and technological developments that affect the human rights ecosystem on the Internet.

The work in research and advocacy in the field of law and technology is a key part of the interest of the Institute in building and reflecting on the Internet ecosystem. Over the years, we have directly intervened in spaces of governance, mobilization and production of knowledge around the administration, coordination and use of resources and services regarding the Internet. In this path, IP.rec has constantly participated in events such as the National Brazil IGF, the Fórum da Internet no Brasil (FIB), and national and international discussions, such as the World Summit on the Information Society, in 2017.

The Institute's work is fundamentally based on a multisectoral and diverse perspective, especially on a regional and geographic level, and is structured around the defense of a neutral, free and open Internet. Based on these lines of action, we welcome the initiative of the Body of European Regulators of Electronic Communications (BEREC) in opening policy papers and issues for public contribution, signalling an essential participatory construction of common understandings.

The object of the public consultation is the Body's Draft Report about the Internet ecosystem. This document was presented by BEREC as a holistic analysis of the users' experience in cyberspace in relation to the various elements of the Internet ecosystem. In addition, the document highlights how their interactions can impact the regulatory intervention of BEREC and the National Regulatory Authorities (NRAs).

The choice to designate the object of analysis as an ecosystem indicates that the theme will be approached as a functional set of biotic and abiotic components, as defined by the English ecologist Arthur G. Tansley. In analogy, the Internet ecosystem can be understood as a functional set of interactions between an array of components involved, for example, in the use of messaging and e-commerce applications.. In short, it is a report that seeks to address technical features, operating systems, service providers, users, market dynamics, and the

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regulatory environment around these interactions, based on the context of the European Union.

Given the importance of continuously approaching the functional set of elements and interactions that constitute the Internet, as well as the possible implications that emerge from an analysis produced by a regulatory body such as BEREC, IP.rec praises the initiative and presents its contributions from a multisectoral perspective, attentive to the public and international interest on the topic, mobilizing an approach grounded in the theoretical framework of Internet Governance. As defined in 2003, within the scope of the Working Group on Internet Governance (WGIG) and the World Summit on the Information Society (WSIS), Internet Governance can be broadly defined as “the development and application by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet.”.

The use of the Internet has taken place in a scenario of increasing complexity and ubiquity that impacts both the user experience and the regulatory activities performed by institutions such as BEREC. The presented report is based on the identification of actors and market dynamics that point to a worrying scenario of concentration and growing collection of data from users and non-users, in a setting distinguished by the spread of the Internet of Things (IOT) and automated solutions in general, based on Artificial Intelligence and tendential inertia of loyal consumers in relation to the services and brands that they are used to consume.

Thus, topics related to competition dynamics, regulatory environment, intermediary liability, privacy and data protection, as well as the current configuration of Internet governance, should be widely discussed. These themes were analyzed by BEREC and we present our contributions on the matter, based on critical aspects we chose to highlight. The agency's diagnosis is unequivocal in alerting to a situation of market concentration and growing practices that violate the ideal of a free and open Internet. This global reality and several of the practices analyzed by BEREC on other policy papers, such as *zero-rating*, must be known and appropriated by Brazilian users.

“Together with BEREC’s previous work on the regulation of digital gatekeepers<sup>5</sup>, this report shows how a small number of digital platforms have reached a position allowing them to shape and restrict both the competition dynamics on different

elements of the internet ecosystem and the relative openness under which content, services and information can be accessed and shared”

(BEREC, 2022, p. 6)

### **Internet ecosystem and market concentration: chapters 3, 4 and 5**

In the **third chapter** of the Draft Report, BEREC presents its version of the components that can be highlighted in the Internet ecosystem, from a functional perspective, from when someone requests or uploads any content to the moment such content is delivered by the server. Thus, the Internet ecosystem is divided into three parts: 1) Client side, including technical devices, operating systems (OS) and the applications installed; 2) Internet infrastructure, which includes the Domain Name System (DNS), Internet Access Services (IAS), and connections made by Internet Protocol (IP); e 3) Server side, involving the resources used by the content provider and the app, namely services involving cloud computing, the server itself and the Content Delivery Network (CDN). Beyond this “traditional” version of the Internet, BEREC emphasizes the need to weight up components related to the use of several increasingly integrated IOT devices, influencing the way users access IAS.

In summary, the report focuses on the interaction between the elements highlighted below, characterizing them by the role they play in user navigation flow, and their relationship with regulatory mechanisms:

1. Client side
  - a. App architecture
    - i. App stores (discovery element)
    - ii. Native apps (pre-installed or downloaded from app store)
  - b. Web architecture
    - i. Search engines (discovery element)
    - ii. Web browsers (interpreting code from downloaded web pages)
  - c. OSs (enabling element)
  - d. Devices (que podem ser dispositivos de IOT)

2. Internet infrastructure
  - a. Internet Access Service (IAS)
  - b. Domain Name System (DNS)
  - c. Conexão IP
3. Server side
  - a. Underlying storage and processing platform
    - i. Hosting (storage of information)
    - ii. CDN (temporary storage of information, so-called caching)
    - iii. Cloud computing (covering IaaS and PaaS)
  - b. Application server elements corresponding to client-side app elements
    - i. App store server
    - ii. Search engine server
    - iii. Servers for attention-intensive applications, como aplicações de mídias sociais ou compartilhamento de vídeos
    - iv. Servers for other applications, como streaming and video-on-demand (VoD) content providers, e-commerce platforms, cloud services or number-independent interpersonal communications services (NI-ICS)
    - v. IOT application server

We believe that the model adopted by BEREC is precise in identifying components whose functions directly impact the experience of users online. As highlighted by the analysis presented in the report, these are aspects that can determine which websites and which contents someone can access. Furthermore, the roles highlighted demonstrate that there are strong interactions between the ecosystem's components. Hence, when these connections are characterized by concentration and bundling, there is an imminent risk of continuous damage to the open nature of the Internet. Such a state of affairs must be carefully analyzed, with active engagement of organized civil society and users, especially in view of the expansion of IOT devices and virtual and augmented reality, with growing data collection from users and environments.

From the highlighted components in the user's journey, the **Chapter 4** of the report describes the European regulatory environment for digital markets, an activity in which BEREC plays a central role and which they define as measures “set in place to protect rights of users and prevent market failures, for instance by lowering barriers to entry and by promoting innovation, openness, interoperability, transparency and non-discrimination” (BEREC, 2022, p. 19)<sup>2</sup>. As emphasized by the document, the role of carry out *ex ante* national market analysis is assigned to National Regulatory Authorities (NRA), created by the European Electronic Communications Code (EECC). This kind of action is directly connected with the aim of promoting competition in the former monopolistic markets in that sector, based on the idea of protecting end-user rights and ensuring the network openness. Consequently, even companies with significant market power (including ISPs - Internet Service Providers) would be subject to strict network access obligations in order to achieve effective competition in the Electronic Communications Services (ECS) market.

As highlighted by BEREC, net neutrality in Europe is also consolidated in the regulatory framework of the internal market. The Open Internet Regulation (OI) is described as a directive aimed at guaranteeing the opening of publicly available Internet access services, with “openness” being understood as a concept related to the guarantee of net neutrality, the “non-discriminatory transmission of internet traffic to and from users” (BEREC, 2022, p. 20) as well as the technological neutrality of devices required for accessing the Internet. According to the Body of European Regulators, these are necessary measures for allowing the Internet to continue to function as a driver of technological innovation. Net neutrality and the agency's considerations on the Digital Markets Act (DMA) and the Digital Services Act (DSA) are further explored throughout the **fourth chapter** of the report, but here they will be discussed later, adding up on the discussion of the **fifth chapter**.

It is in the **fifth chapter** that the most prominent actors in the European market are presented, based on the components and functions previously highlighted. Here, the diagnosis made by BEREC reinforces the warning regarding the growing concentration of that market, an aspect that should be brought to the attention of the international community. The diagnosis shows that there is concentration, or even monopolistic dynamics, not only in each segment alone, but involving actors that are continuously present in several of the activities

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<sup>2</sup> “(...) estabelecidos para proteger os direitos dos usuários e prevenir falhas de mercado, por exemplo, reduzindo as barreiras à entrada e promovendo inovação, abertura, interoperabilidade, transparência e não discriminação” (BEREC, 2022, p. 19, tradução livre)

of the user's online journey. When the same company dominates, for example, not only the market for operating systems and browsers, but also for CDNs, cloud storage and social media, there is damage to openness and competition. From IP.rec's point of view, there is a frontal damage to the possibilities of using the Internet for the full development of individuals and populations, which indicates that not only are such functions interconnected and are mutually dependent, but that they are often related in an oligopolistic way, in true "*provider-specific ecosystems*" (BEREC, 2022, p. 24). These are the cases of Google, Apple, Meta, Amazon and Microsoft, the "Big Tech" analyzed by the report. Formally, we suggest standardizing any reference made to Google\Alphabet, sometimes referred to simply as Google, even when such mention is related to its wider ecosystem. The subheading 5.1. Alphabet, on page 25, is different from the designation previously adopted.

IP.rec understands that BEREC's analysis details the oligopolistic dynamic between the Big Techs (Alphabet, Apple, Meta, Amazon and Microsoft), which concentrate market power in the scope of Internet services and infrastructure. Those actors, through the Internet of Things - and we also highlight the growing spread of Artificial Intelligence and devices related to "expanded reality" - have more and more openings for accessing user data.

IP.rec supports a free, open Internet, based on the guarantee of human rights, and sees as pertinent to deepen the discussion about the business models of these companies, the market dynamics they establish among themselves and with others, as well as as with the states in which they operate and the means they use to collect new customers, not only in Europe, but above all in the Global South. Therefore, the discussion is absolutely relevant, given that the debates originated in the European scenario tend to spread and motivate parallel and consequential debates, not always with the specificities of the Global South in mind.

In this sense, IP.rec is also aware of BEREC's position regarding the practice of zero-rating, defined by the organization as the application of "(...) a price of zero to the data traffic associated with a particular application or class of applications (and the data does not count towards any data cap in place on the internet access service)". In other words, that is, when Internet Service Providers offer customers "free browsing" for specific applications. As announced in June 2022, through an update to the "Guidelines on the Implementation of the Open Internet Regulation", BEREC understands that this practice affects market dynamics,



harms net neutrality and, therefore, directly violates the Open Internet Regulation, thus incorporating recent European court decisions and rendering the practice inadmissible.

IP.rec shares this understanding and believes that it can not only be included, but highlighted, in the report under analysis. We emphasize that the decision is globally relevant and has a direct impact on the relationship between the Internet and citizenship. In Brazil, [data about national connectivity points to the prevalence of mobile connection](#), with limited data plans and zero-rating for Big Tech apps. This occurs even with net neutrality already being guaranteed by [Brazilian law](#) and arises from national connectivity and market dynamics associated with a [different \(and limited\) evaluation of Brazilian authorities](#). The case may illustrate an international asymmetry between countries regarding enforcement and bargain power in the face of transnational companies, whose practices limit meaningful and equal access for Brazilian users, who cannot leave their WhatsApp conversations to browse freely. The zero-rating issue show that large “gatekeepers”, by monopolizing the market, harm the democratic and egalitarian use of the Internet, as well as the possibility of real net neutrality, an aspect reinforced by BEREC’s guidelines.

Market concentration is, according to the report, the main target of the Digital Markets Act. DMA assembles a set of ex-ante prohibitions and obligations for large gatekeepers in order to establish open markets for new companies. As informed by the report, the regulation results from investigations and *ex post* decisions by the European Commission on cases of abuse, bundling, undue advantages and “killer acquisitions” by technology giants. DMA is well presented and justified within the report, which makes the document an important source of information regarding the reasons that led to the approval of the proposal early in July.

Under the justification of opening digital markets, one of the important themes of the DMA is the guarantee of interoperability, meaning the ability of different systems and organizations to communicate through two or more systems without a technological dependence. Interoperability ensures that computer systems exchange information efficiently and facilitate access to information, being one of the fundamental quality for maintaining an open Internet. In the [final version of the DMA](#), there is the prerogative of mandatory interoperability between messaging services, a requirement that may demand standardization measures of encryption protocols. This should be carefully discussed and remains as a

sensible issue, an issue that was not properly considered by the DMA's Impact assessments, in an already common and unfortunate practice by the European Union legislators.

Encryption is a tool that has managed to prove its effectiveness in protecting privacy and data protection in the digital environment, providing greater security to communications and assuming a leading role in the defense of human rights in the digital sphere, in addition to being necessary for the realization of the free and open Internet (SARAIVA; TORRES, 2022). Therefore, IP.rec considers that the BEREC report must include the “safeguard” that is somehow mentioned in the DMA, “(...) the gatekeeper and the requesting provider should ensure that interoperability does not undermine a high level of security and data protection (...)”, since it must ensure that [interoperability does not pose a threat to encryption](#). The protection guaranteed by end-to-end encryption must be preserved.

With the COVID-19 pandemic and the acceleration of the digitization of human activities, this safeguard is even more necessary. Trust and security is a must with the use of the network for work, shopping, entertainment, as well as enabling and storing conversations with friends and family. Encryption plays a fundamental role in this regard, being an instrument of relevant technical and socio-legal value for the realization of human rights. As we did not find the mention of this mechanism and the attention to its consideration even in the face of the important demand for interoperability, IP.rec understands that this consideration can complement BEREC's analysis **and should be included in Chapter 4**.

The **fourth chapter** of the Draft has a subtopic focused on digital services and platforms that fall within the scope of DMA and are identified as core platforms. These include companies that provide online search engines, online social networking services, video sharing platforms, web browsers, as well as any online advertising services joint with services.

In this sense, the report presents the Digital Services Act (DSA) and the changes it brings to the liability of intermediaries. According to BEREC, the DSA modernizes the regime that regulates this liability by establishing new obligations for online platforms. These changes are justified within the scope of enhancing user protection. Although not considered responsible for the content they host, these intermediaries “will be subjected to additional due diligence obligations regarding the hosted content, and the obligation to have a notice-and-takedown procedure in order to provide for the reporting of illegal content present

on the platform<sup>3</sup>” (BEREC, 2022, p. 21). DSA will also force online platforms to share how their algorithms work, to implement processes to quickly remove illegal content and repress users who spread disinformation.

IP.rec is carefully evaluating the European proposal and understands that expanding the multisectoral debate is a necessary proceeding to develop regulations and define parameters of civil liability of intermediaries. In addition, the Institute recognizes the tension established between the need to regulate this sector and the role of the platforms regarding third-party content. In this scenario, it becomes important to assess how intermediaries fail to establish adequate procedures for content removal and moderation, with an absence of clear rules and awareness projects focused on developing an user-centric critical sense and conscious choice for what content they can share. Furthermore, often, after the intermediary’s decision to remove certain content, there are no contestation tools that provide the possibility for users to question the removal decisions, creating a scenario that makes it difficult to guarantee human rights in the digital environment and to effectively regulate intermediary liability. Therefore, there is a flaw in the company's general governance process that involves not only internal procedures, but also communication and procedure initiative on the user side as well.

In this sense, the fine line between the role of platforms for the content, the lack of awareness projects for users, as well as the risks to their freedom of expression, is a barrier to building a solid path in understanding the impact of these responsibilities through social agents and social lenses, which can represent a fundamental thermometer to mediate these issues.

In a recent project to analyze the civil liability of intermediaries, IP.rec carried out a [legislative comparison](#), focusing on initiatives of review of current legal paradigms and dogmatic structures of civil liability, exploring models and possible scenarios of liability for platforms. The chosen approach was based on the dichotomy of the recent “past of experience” (existing legislation and traditional dogmatics) and the “horizon of expectations” (possible models and ongoing bills) proposed by conceptual history methodology. IP.rec proposes that the combination of legislative history with the functions performed by intermediaries and major companies, as well as the primary role and focus on users, can be

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<sup>3</sup> “(...) estará sujeito a obrigações adicionais de due diligence em relação ao conteúdo hospedado, e à obrigação de ter um procedimento de notificação e remoção para permitir a denúncia de conteúdo ilegal presente na plataforma” (BEREC, 2022, p. 21, tradução livre).

part of an approach to develop this regulatory thermometer, seen by the Institute as a possibility to establish more precise regulations and generate a “cascade effect” of large-scale legal adjustments by companies. This proposal points to the need to understand not the law itself, taken as an isolated object, but the law as a determined socio-historical phenomenon, in its relation to both alleged effects and declared causes.

Another topic of the **fourth chapter** is about personal data, an issue classified by BEREC as fundamental for the dependence dynamics that are established within the Internet ecosystem, insofar as companies use those assets to influence users and gain new customers. An important aspect of the commodification of data, mentioned by BEREC, is that this monetary aspect is poorly understood by users, who, in turn, end up opting to benefit from apparently free services. In this way, users end up becoming a “product” of a behavioral profiling that can happen within the same companies and between different segments, aiming at market monopolization, development and functionality of innovations such as Artificial Intelligence (AI) and IoT.

### **Final considerations**

IP.rec praises the consistency of the perspective presented by BEREC regarding the components that functionally integrate the current Internet ecosystem and the analysis regarding the way in which they work for the greater benefit of a limited number of actors. We consider that the report is relevant, eloquent and adequate to the role of the agency in the European ecosystem. The determinations adopted by the European Union in the directives and regulations that have been in the spotlight at a global level can and should be widely evaluated. Even if they should not be automatically incorporated or copied by other countries, they illustrate some of the legislative possibilities of intervening in a concentrated market whose actors and activities must be eligible to more demands than economic accomplishments.

With an fundamental role in activities in a variety of aspects of human life, especially after the pandemic, the path that goes from requesting/uploading content to delivery/download has been subject to the domain of transnational companies, the exploitation of personal data and the absence of responsibility, transparency and accountability for social functions that are of public relevance, such as communication and sociability. The abuse of specific commercial-business actors against the user-client, often in

a dynamic of passivity and impotence, is noticeable and widely known by regulatory bodies such as BEREC, and configures a massive exploitation that can cause friction with rights protected nationally and internationally.

For IP.rec, it is necessary to highlight that the problems diagnosed by BEREC concern an Internet that is global and, therefore, affects all countries and populations, albeit in different ways. From the perspective of an Brazilian-based Institute committed with a human rights stand and the active participation of civil society in matters such as the ones addressed but BEREC, we highlight that there is an international asymmetry between the regulatory power of the states and the economic power of major companies and economic sectors that promote a continuous process of unbridled and irresponsible innovation. The unilateral regulatory power of the European Union, with transnational effects, is a known and studied element of contemporary geopolitics<sup>4</sup> and can be attributed to specific aspects that are not shared by countries like Brazil and should not be globally exported in an unwary way.

IP.rec carefully observes the situation diagnosed by BEREC and the events that point to the risks of a privatized digital public sphere submitted to the interests of publicly traded companies, which triggers a harmful scenario with electoral interference, amplification of disinformation, hate speech, economic inequalities and threats to democratic regimes, among other problems that must be faced, not only in the European Union or from the region's regulatory framework.

The report produced by BEREC and made available for public consultation must be added to complementary perspectives and approaches, since the analysis of the various elements that constitute the Internet ecosystem must prioritize a multistakeholder and holistic approach of Internet governance, aiming to build a solid foundation for the elaboration of regulations that recognize the need to establish a balance between competition dynamics, privacy and data protection, intermediary liability, impact on users, and the safeguard of rights humans in the digital environment. We hope to contribute in this regard and we congratulate, once again, the organization's initiative and the depth of the proposed analysis.

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<sup>4</sup> As discussed by Anne Bradford (2020) about what has been known as the Brussels Effect. One of the examples of unilateral power of transnational regulation is the General Data Protection Regulation (GDPR), whose effect extended not only in terms of application to everyone who processed data from European citizens, but also at the level of reference and legislative export.

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