REGULATION 2015/2120/EU LAYING DOWN MEASURES CONCERNING OPEN INTERNET ACCESS

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Important dates regarding the Regulation 2015/2120/EU laying down measures concerning open internet access:

2013, November 11 – Proposal adopted by the Commission

2015, October 27 – Proposal approved by the European Parliament

2016, January 19 – Approved by the Council

2015, November 6 – Signature by the President of the EP and by the President of the Council

2015, November 26 – Publication in the Official Journal of the European Union

2016, April 30 – Regulation Implemented

8.1 Introduction

Almost imperceptibly our lived experience changed over the past twenty-five years. If one were able to travel back in time to 1997 to experience (or re-experience) life in the latter days of the 20th Century we would find a world quite unlike today. There were around 70 million internet users, which represented about 1.7% of the global population,¹ and only about 100,000 websites.² It was the year the domain Google.com was

¹ <u>https://www.internetworldstats.com/emarketing.htm</u>

² https://www.pingdom.com/blog/the-web-in-1996-1997/

registered and high-speed modems which could handle data transfers at 56Kbps were introduced. As a result, the vast majority of global citizens had never seen a web page, used email, or owner a mobile phone.³

The debate on the so-called digital divide (between those with stable access to the internet and those without) was in its infancy. In 2000 at the Annual Meeting of the Political Studies Association of the UK at the London School of Economics and Political Science, Harvard Professor Pippa Norris delivered her paper The Worldwide Digital Divide: Information Poverty, the Internet and Development, a paper which would go on to be further developed in her 2001 book Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide. ⁴ The book marked the culmination of several years' work by Norris and in it she identified a number of different divides. The most obvious was the global divide between countries. As Norris noted: "advanced economies such as Sweden, Australia and the United States, at the forefront of the technological revolution may be well placed to pull even farther ahead, maintaining their edge in future decades...But most poorer societies, lagging far behind, plagued by multiple burdens of debt, disease and ignorance, may join the digital world decades later and, in the long term, may ultimately fail to catch up."5 Unfortunately data suggests this gap remains, although there is some limited evidence that widespread adoption of mobile internet has helped bridge the divide slightly in developing countries. 6 More interesting for this chapter though is Norris's second divide, the social divide. This was driven by the uneven distribution of technological opportunities within nations. As Norris observed "as the internet has become increasingly central to life, work, and play, - providing job opportunities, strengthening community networks and facilitating educational advancement - it becomes even more important if certain groups and areas are systemically excluded, such as poorer neighbourhoods, working-class households or peripheral rural communities.⁷

This social divide leads directly, via the e-Europe Action Plan, to Regulation 2015/2120/EU (hereafter the Open Internet Access Regulation). The path from Norris's paper and book to the Regulation may not be clear but it is there. In the e-Europe Action Plan the Commission committed to three key objectives, all of which were designed to increase online social mobility. They were: (1) a cheaper, faster and secure Internet, (2) investing in people and skills, and (3) to stimulate the use of the Internet. To drive this the Commission pledged to increase participation for all in the knowledge-based economy. As the Commission noted: "one of the priorities of the eEurope 2002 Action Plan is to ensure that people have the widest possible access to information technologies...in particular, the Action Plan recommends more effective coordination at European level of policies to avoid info-exclusion."

At this time the Commission was making this pledge awareness of the issue of network neutrality was growing, driven in particular by the work of then University of Virginia Law Professor Tim Wu. In 2003 he published his ground-breaking paper *Network Neutrality, Broadband Discrimination*¹⁰ and in so doing popularised both the idea of network neutrality, something that had been part of the operating principles of the internet since its creation, but which was now under threat due to advances in technology, and the term

⁶ K. V. Bhanu Murthy, Anjala Kalsie & Rishika Shankar, Digital economy in a global perspective: is there a digital divide?, (2021) 13 *Transnational Corporations Review* 1. DOI: 10.1080/19186444.2020.1871257

³ According to Statista there were 215 million mobile (cellular) subscriptions worldwide in 1997.

⁴ Cambridge University Press, Cambridge, 2001.

⁵ Ibid, 5.

⁷ Norris, n.4 above, 10.

⁸ Commission Communication of 13 March 2001 on eEurope 2002: Impact and Priorities A communication to the Spring European Council in Stockholm, 23-24 March 2001: COM(2001) 140 final.

⁹ Ibid.

¹⁰ Tim Wu, Network Neutrality, Broadband Discrimination, 2 *Journal of Telecommunications and High Technology Law* 141 (2003).

"network neutrality" often today shortened to net neutrality. Network neutrality is a hugely complex debate, but Wu very quickly got to the heart of the issue, without network neutrality a truly open, generative and democratic network was impossible. As Wu explains, "A communications network like the Internet can be seen as a platform for a competition among application developers. Email, the web, and streaming applications are in a battle for the attention and interest of end-users. It is therefore important that the platform be neutral to ensure the competition remains meritocratic." Within his concept of network neutrality Wu introduced a secondary concept, one which is in time has been incorporated into the wider concept of net neutrality: broadband discrimination. Wu's concept of broadband discrimination, unjustified restrictions on user behaviour, and Norris's social divide may be seen to be connected. When Norris spoke of "groups and areas are systemically excluded, such as poorer neighbourhoods, working-class households or peripheral rural communities" she could have been describing the same groups which were most at risk of broadband discrimination: rural communities who may have only one available broadband provider or poorer neighbourhoods where cable companies had not invested.

What is clear is that a failure to protect network neutrality and broadband discrimination are triggers for digital social divide. Wealthier users can buy better access by choosing from a variety of products and services whereas remote or poorer communities may find their choice of internet access provider reduced to a few or even one option, meaning that the limitations imposed by that provider effectively determines the scope of their horizon for their internet use. Against this backdrop some countries began to see internet access as a fundamental right. Estonia is usually cited as the first country to adopt a right to internet access when in 2000 it passed a new Telecommunications Act which added internet access to its universal services list. The following year Greece amended its constitution introducing Article 5A(2) which states: "All persons have the right to participate in the Information Society. Facilitation of access to electronically transmitted information, as well as of the production, exchange and diffusion thereof, constitutes an obligation of the State." Possibly the most well-known domestic development on this front remains France's Declaration of 10 June 2009 that "given the generalized development of public online communication services and the importance of the latter for the participation in democracy and the expression of ideas and opinions, the free communication of ideas and opinions enshrined in the Declaration of the Rights of Man and the Citizen of 1789 implied freedom to access such services."

Against the backdrop of these domestic developments the European Union passed the Universal Services Directive. ¹⁵ Article offered a weak internet access right. By Article 4(1) Member States were required to "ensure that all reasonable requests for connection at a fixed location to a public communications network are met by at least one undertaking", and by Article 4(2) this extended to "facsimile and data communications at data rates that are sufficient to permit functional Internet access, taking into account prevailing technologies used by the majority of subscribers and technological feasibility." Vitally this right did not extend to mobile access, which with the introduction of the smartphone in 2007 was fast becoming the key access

¹¹ Ibid, 146.

¹² Although the Act has since been repealed and replaced by the Electronic Communications Act 2004 the original wording that internet access be "universally available to all subscribers regardless of their geographical location, at a uniform price" remains in Estonian Law.

¹³ The Constitution of Greece.

¹⁴ Decision n° 2009-580 of June 10th 2009: Act furthering the diffusion and protection of creation on the Internet, Art.12.

¹⁵ Directive 2009/136/EC of the European Parliament and of the Council of 25 November 2009 amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services.

mode for internet users, or to broadband access which was necessary for high-speed downloading and uploading.

Recognising this the EU launched the *Digital Agenda for Europe Action Plan.*¹⁶ As part of this plan the Commission moved forward with proposals to formally recognise network neutrality in EU law. In April 2011 a communication from the Commission to Parliament and the Council entitled *The Open Internet and Net Neutrality in Europe*,¹⁷ noted that despite Art.8(4)(g) of the Framework Directive¹⁸ requiring national regulatory authorities to promote the interests of the citizens of the European Union by promoting the ability of end users to access and distribute information or run applications and services of their choice, concerns had been raised about throttling of peer-to-peer (P2P) file-sharing or video streaming by certain providers in France, Greece, Hungary, Lithuania, Poland, and the United Kingdom and blocking or charging extra for the provision of voice over internet protocol (VoIP) services in mobile networks by certain mobile operators in Austria, Germany, Italy, the Netherlands, Portugal, and Romania.¹⁹ The Commission noted that the EU remained committed to 'preserving the open and neutral character of the internet, taking full account of the will of the co-legislators now to enshrine net neutrality as a policy objective and regulatory principle to be promoted by national regulatory authorities'.²⁰ The Commission also noted though that amendments made in the 2009 Telecoms Reform Package were still being implemented by member states and so recommended no immediate action be taken, rather they would monitor the situation.

The monitoring period ended in summer 2012. A study by the Body of European Regulators of European Communications (BEREC) found that 20 per cent of all internet users, and potentially up to half of EU mobile broadband users, had contracts that allowed their ISP to restrict services like VoIP or P2P. They further found that those fixed and mobile operators with contractual restrictions on P2P, 96 per cent of fixed-line providers, and 88 per cent of mobile providers, enforced them technically. As a result the Commission launched a public consultation into transparency, switching, and internet traffic management with an aim to preserve net neutrality. The public consultation stage closed on 15 October 2012 after which the Commission put together a series of packages on net neutrality and mobile roaming which led on 11 September 2013 to the publication of the Connected Continent legislation package. Key among this was the proposal for a Regulation laying down measures concerning the European single market for electronic communications and to achieve a connected continent.

8.2 Regulation 2015/2120/EU The Open Internet Access Regulation

¹⁶ European Commission, Digital Agenda for Europe: key initiatives (MEMO/10/200): https://ec.europa.eu/commission/presscorner/detail/en/MEMO 10 200

¹⁷ COM(2011) 222 final: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011DC0222.

¹⁸ Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive).

¹⁹ Above n.16 at [4.1].

²⁰ EU Telecoms Reform Package [2009] OJ L337.

²¹ BEREC, A View of Traffic Management and other Practices Resulting in Restrictions to the Open Internet in Europe (29 May 2012).

²² http://ec.europa.eu/digital-agenda/en/node/67489/#openinternet

²³ COM(2013) 627 final: https://ec.europa.eu/digital-agenda/news-redirect/11950.

The Regulation aims to "establish common rules to safeguard equal and non-discriminatory treatment of traffic in the provision of internet access services and related end-users' rights."²⁴ Unlike the Universal Services Directive this is clearly a Net Neutrality provision rather than an access provision. To be clear while the Universal Services Directive created a right to access the internet it did not address Tim Wu's broadband discrimination point. By Directive 2009/136/EC users had a right to a "connection at a fixed location...at data rates that are sufficient to permit functional Internet access" but this was not required to be neutral or non-discriminatory. The Open Internet Access Regulation is specifically designed to meet the broadband discrimination point by requiring "equal and non-discriminatory treatment of traffic". There are a number of provisions in this short Regulation designed to promote and protect both non-discriminatory access to and non-discriminatory use of the internet, including apps, platforms, and services which use the internet to deliver content and services.

Vitally to protect the longevity of the Regulation it adopts a technologically neutral stance. This is key for the longevity of the Regulation, the favouring of one technological solution over any other would risk obsolescence as technology evolved. By taking a principles-based approach²⁵ the Regulation sets open access standards for all internet access service providers including Internet Service Providers (incorporating broadband providers) and mobile network operators (MNOs). These principles require internet access service providers to allow end users to connect through open interfaces, i.e., users can use any network technology and terminal equipment that they wish to connect to the network.²⁶ This removes the possibility of bundling technology and access through a single provider which used to be common. For example, when first launched in the UK the iPhone could only be used on the O2 network.²⁷ It should be noted this does not restrict the common practice of SIM locking phones which are bought from a MNO to that network, as the limitation applies to preventing the use of types of terminal equipment on the network not limiting the use of a single piece of equipment under a contractual agreement.

The primary principle is that users "have the right to access and distribute information and content, and to use and provide applications and services without discrimination." This is not without constraint. As the Regulation makes clear "This Regulation does not seek to regulate the lawfulness of the content, applications or services, nor does it seek to regulate the procedures, requirements and safeguards related thereto. Those matters therefore remain subject to Union law, or national law that complies with Union law." This limitation allows Members States to continue to employ tools such as intermediary injunctions under Art.8(3) of the Copyright and Related Rights in the Information Society Directive, or to block or remove certain content in line with domestic law such as extremely pornographic material under ss.63 and 68 of the UK Criminal Justice and Immigration Act 2008 without falling foul of the open access principle.

This is not the only limitation on the open access principle. Net neutrality means, to paraphrase Sir Tim Berners-Lee, "that data packets on the internet should be moved impartially, without regard to content,

²⁴ Regulation 2015/2120/EU, Recital 1.

²⁵ Julia Black, The Rise, Fall and Fate of Principles Based Regulation, *LSE Law, Society and Economy Working Papers* 17/2010: http://ssrn.com/abstract=1712862.

²⁶ Regulation 2015/2120/EU, Recital 4.

²⁷ https://www.apple.com/uk/newsroom/2007/09/18Apple-Chooses-O2-as-Exclusive-Carrier-for-iPhone-in-UK/

²⁸ Regulation 2015/2120/EU, Recital 6.

²⁹ Ibid.

³⁰ Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society.

destination or source."31 It does not mean that internet access service providers cannot offer different levels of service at different prices. As Recital 7 recognises: "In order to exercise their rights to access and distribute information and content and to use and provide applications and services of their choice, end-users should be free to agree with providers of internet access services on tariffs for specific data volumes and speeds of the internet access service." Further internet access service providers may need to take actions to manage their service. Today Internet Service Providers must carry much more data across networks than they were originally designed to handle. While telecommunications companies strive to upgrade their networks using modern fibreoptic communications, at some points on the network data may find itself being transported using old-fashioned and inefficient copper wire. With HD and now UHD television content being streamed by US giants Netflix, Amazon and Disney, as well as by domestic broadcasters, as well as the rise in videoconferencing technologies such as Zoom, Teams and WebEx, driven by pandemic work patterns, Internet Service Providers find their network under more strain than ever. As a result, the Regulation permits "reasonable traffic management is to contribute to an efficient use of network resources and to an optimisation of overall transmission quality responding to the objectively different technical quality of service requirements of specific categories of traffic, and thus of the content, applications and services transmitted."32 This though "should be transparent, non-discriminatory and proportionate, and should not be based on commercial considerations"33 and "any traffic management practices which go beyond such reasonable traffic management measures, by blocking, slowing down, altering, restricting, interfering with, degrading or discriminating between specific content, applications or services, or specific categories of content, applications or services, should be prohibited, subject to the justified and defined exceptions laid down in this Regulation."34 Traffic management measures that go beyond such reasonable traffic management measures may only be applied as necessary and for as long as necessary to comply with the three justified exceptions laid down in the Regulation.³⁵

Finally with mobile access to online services being a vital part of our everyday lives in the smartphone society, the ensure that users "have the right to access and distribute information and content, and to use and provide applications and services without discrimination" the Regulation seeks to remove entry barriers to mobile network access caused by data roaming charges. To remedy this the Regulation set out that retail roaming surcharges for mobile data should be abolished from 2017,³⁶ subject to a fair use policy.³⁷

8.2.1 Articles 1-2: Subject matter and scope

The key to effective net neutrality regulation is to permit the market for internet access to function effectively, by allowing different products and services to be marketed to end users, while preventing unreasonable, unclear, or unfair interference with traffic data. As a result, the Regulation focuses on discrimination as the key to determining when fair and reasonable market distinctions tip over to become unfair interference in data traffic. Article 1(1) "establishes common rules to safeguard equal and *non-*

³¹ Tim Berners-Lee, 'In defense of net neutrality', *Wall Street Journal* 22 June 2017; Olivia Solon, 'Tim Berners-Lee on the future of the web: "The system is failing", *The Guardian* 16 November 2017.

³² Regulation 2015/2120/EU, Recital 9.

³³ Ibid.

³⁴ Recital 11.

³⁵ Recital 12.

³⁶ Recital 21.

³⁷ Recital 22.

discriminatory treatment of traffic in the provision of internet access services and related end-users' rights"³⁸ while Art.1(2) "sets up a new retail pricing mechanism for Union-wide regulated roaming services in order to abolish retail roaming surcharges without distorting domestic and visited markets".³⁹

By these two provisions the scope of the Regulation meets the specific aims outlined above: (1) to have the right to access and distribute information and content, and to use and provide applications and services without discrimination; and (2) to remove entry barriers to mobile network access caused by data roaming charges.

The subject matter of the Regulation is then followed by a short definitions section at Article 2. The two defined terms are "provider of electronic communications to the public" and "internet access service". A provider of electronic communications to the public, we are told at Article 2(1) is "an undertaking providing public communications networks or publicly available electronic communications services" while Article 2(2) defines an internet access service as "a publicly available electronic communications service that provides access to the internet, and thereby connectivity to virtually all end points of the internet, irrespective of the network technology and terminal equipment used".

This may seem thin on definitions for such a technically complex area of law but the reason for this is that Article 2 also incorporates "the definitions set out in Article 2 of Directive 2002/21/EC" (the Framework Directive). This introduces a further sixteen definitions, not all relevant to the Open Internet Access Regulation. Definitions borrowed from the Framework Directive that are relevant to the operation of the Regulation include "user", defined as: "a legal entity or natural person using or requesting a publicly available electronic communications service", "electronic communications services" which "means a service normally provided for remuneration which consists wholly or mainly in the conveyance of signals on electronic communications networks, including telecommunications services and transmission services in networks used for broadcasting", "public communications network" which means "an electronic communications network used wholly or mainly for the provision of publicly available electronic communications services"; and vitally "end-user" which means "a user not providing public communications networks or publicly available electronic communications services".

Some further guidance on these definitions is given by BEREC, the Body of European Regulators for Electronic Communications, established by Regulation (EC) No 1211/2009 of the European Parliament and of the Council of 25 November 2009, as part of the Telecom Reform package. In its *Guidelines on the Implementation of the Open Internet Regulation*,⁴⁴ it explains "end-user means a user not providing public communications networks or publicly available electronic communications services. In turn, "user" means a legal entity or natural person using or requesting a publicly available electronic communications service. On

³⁸ Emphasis added. It should be noted for readers in the UK that the word common was deleted from the UK implementation by the Open Internet Access (Amendment etc.) (EU Exit) Regulations 2018/1243 Pt 3 reg.3(2) on 31 December 2020.

³⁹ UK readers may note that Art.1(2) was deleted from the UK implementation by the by Electronic Communications (Amendment etc.) (EU Exit) Regulations 2019/919 Pt 4 reg.5(2) on 31 December 2020.

⁴⁰ Directive 2002/21/EC, Art.2(h).

⁴¹ Directive 2002/21/EC, Art.2(c).

⁴² Directive 2002/21/EC, Art.2(d).

⁴³ Directive 2002/21/EC, Art.2(n).

⁴⁴ BoR (20) 112 11 June 2020:

 $[\]underline{https://berec.europa.eu/eng/document_register/subject_matter/berec/download/0/9277-berec-guidelines-on-the-implementation-o~0.pdf$

that basis, BEREC understands "end user" to encompass individuals and businesses, including consumers as well as CAPs.⁴⁵

BEREC also explain that provider of electronic communications to the public (PECP) comprises both public communications networks and electronic communications services, both of which are described above, and which are defined in Article 2 of the Framework Directive. They go on to make clear that provider of electronic communications to the public do not include providers of electronic communication services or communication networks that are not publicly available. Private networks are therefore not within the scope of the Regulation, however as BEREC go on to make clear VPNs form a sort of hybrid, part of which is public and part of which is private: "Virtual private network (VPN) services are typically offered by PECPs to anyone that wishes to enter a contract about the provision of such a service. These would therefore typically be considered to be publicly available, although the operation of a specific VPN would be a private network." Thus the operation of a corporate network across a VPN falls partly within and partly without the Regulation. The operation of the data carriage agreement by ISPs or MNOs falls within the scope of the Regulation but the internal operation of the corporate network, being private, does not.

BEREC also give further guidance on the term "internet access service". One point of contention is the use of the term "provides...connectivity to virtually all end points of the internet" in the definition of an IAS. We know that not all points on the network are equally accessible. Large portions of the Chinese internet may not be accessible to European users, do such barriers mean that there is not "connectivity to virtually all end points of the internet?" BEREC helpfully explain that as the internet "is a distributed system where a single ISP controls a rather limited part not all endpoints might be reachable all of the time. However, such a lack of reachability should not preclude that the service is defined as an IAS."⁴⁹ BEREC also give guidance to national regulators that the definition of IAS should not be read so restrictively as to preclude operators which only provide access to a sub-set of the internet by way of so-called walled gardens from being in scope. As BEREC observe "an ISP could easily circumvent the Regulation by providing such sub-internet offers. These services should therefore be considered to be in the scope of the Regulation and the fact that they provide a limited access to the internet should constitute an infringement of Articles 3(1), 3(2) and 3(3) of the Regulation."⁵⁰

8.2.2 Article 3: Safeguarding of open internet access

This is the key provision of the Regulation: Europe's Net Neutrality provision. By Article 3(1) "End-users shall have the right to access and distribute information and content, use and provide applications and services, and use terminal equipment of their choice, irrespective of the end-user's or provider's location or the location, origin or destination of the information, content, application or service, via their internet access service." BEREC in their *Guidelines* explain that the right is not a unitary right rather it is made up of three

⁴⁵ Ibid, para [4]. A CAP is a Content and Application Provider. CAPs make content (e.g. web pages, blogs, video) and/or applications (e.g. search engines, VoIP applications) and/or services available on the Internet. CAPs may also make content, services and applications available via specialised services.

⁴⁶ Ibid, para [8].

⁴⁷ Ibid, para [9].

⁴⁸ Ibid, para [11].

⁴⁹ Ibid, para [15].

⁵⁰ Ibid, para [17].

distinct rights. The first is the right to the right to access and distribute information and content, 51 the second is the right to use and provide applications and services, 52 and the third is the right to use terminal equipment of their choice.⁵³ The first two are relatively self-explanatory but the third may need a little explanation. Terminal equipment is "equipment directly or indirectly connected to the interface of a public telecommunication network."54 It is therefore the equipment which directly connects you to the network – normally a router or modem or with MNOs it would be a SIM-enabled device. This choice prevents internet access service providers from requiring the use of obligatory equipment.

As noted above, net neutrality does not equate to a complete removal of market conditions for internet access. Article 3(2) therefore provides that commercial agreements entered into by end users with internet access service providers are not subject to Article 3(1). Permitted characteristics such as price, data volumes or speed, and commercial practices are allowed. As BEREC explain this is made up of two aspects: (1) the freedom to conclude agreements between ISPs and end-users relating to commercial and technical conditions as well as characteristics of internet access services; and (2) the provision that such agreements and commercial practices shall not limit the exercise of the end-users' rights laid down in Article 3(1).55 What does this mean? It means that article 3(2) contains matching positive and negative rights and duties for both providers of internet access services and end users. Providers have a positive right to set commercial terms for their product but have the negative duty to ensure they do not through their terms and conditions limit end user rights. End users have the positive right to receive open access but have a duty to agree commercial terms with the provider.

Article 3(3) houses the net neutrality principle: "Providers of internet access services shall treat all traffic equally, when providing internet access services, without discrimination, restriction or interference, and irrespective of the sender and receiver, the content accessed or distributed, the applications or services used or provided, or the terminal equipment used." This prohibits "discrimination, restriction or interference" with traffic, which according to Recital 11 includes "blocking, slowing down, altering, restricting, interfering with, degrading or discriminating between specific content, applications or services, or specific categories of content, applications or services." As the UK regulator Ofcom explains in their guidance the types of activity prevented by Article 3(3) includes: (1) blocking access to, slowing down ('throttling'), or discriminating in other way between internet traffic on the provider's network, unless it is necessary to do so for legal, security or emergency reasons; and (2) managing internet traffic to gain a commercial advantage - for example by redirecting you away from a website to one affiliated with the provider, or to slow down the services of rival organisations.⁵⁶ BEREC note that neutrality does not necessarily mean the same experience for every end user, observing that "equal treatment does not necessarily imply that all end-users will experience the same network performance or quality of service (QoS). Thus, even though packets can experience varying transmission performance (e.g. on parameters such as latency or jitter), packets can normally be considered to be treated equally as long as all packets are processed agnostic to sender and receiver, to the content accessed or distributed, and to the application or service used or provided."57

⁵¹ Ibid, para [23].

⁵² Ibid, para [24].

⁵³ Ibid, para [25].

⁵⁴ Directive 2008/63/EC of 20 June 2008 on competition in the markets in telecommunications terminal equipment, Art.1(1)(a).

⁵⁵ BEREC *Guidelines*, para [31].

⁵⁶ Ofcom, What is Net Neutrality?: https://www.ofcom.org.uk/phones-telecoms-and-internet/advice-forconsumers/advice/net-neutrality.

⁵⁷ BEREC *Guidelines*, para [53].

The second paragraph of Article 3(3) contains the key limitation on the open internet principle: that providers of internet access services may implement "reasonable traffic management measures". The Article makes clear that "to be deemed to be reasonable, such measures shall be transparent, non-discriminatory and proportionate, and shall not be based on commercial considerations but on objectively different technical quality of service requirements of specific categories of traffic. Such measures shall not monitor the specific content and shall not be maintained for longer than necessary." Ofcom explains this means that providers may take steps to "manage its internet traffic, so that its network runs smoothly. But these measures should not be taken for longer than necessary. The provider must be absolutely clear about its traffic management policy and practices."58 BEREC, as ever give further guidance. They note that the principle of nondiscrimination does not preclude ISPs from implementing traffic management measures which differentiate between objectively different categories of traffic.⁵⁹ This is provided for in Recital 9 where it is explained that "any such differentiation should, in order to optimise overall quality and user experience, be permitted only on the basis of objectively different technical quality of service requirements (for example, in terms of latency, jitter, packet loss, and bandwidth) of the specific categories of traffic, and not on the basis of commercial considerations." In considering proportionality BEREC make clear that "there has to be a legitimate aim for this measure, as specified in the first sentence of Recital 9, namely contributing to an efficient use of network resources and to an optimisation of overall transmission quality."60 Reasonable traffic management measures must also be proportionate in scope and duration, ⁶¹ meaning that they are not maintained for longer than necessary and rely on the least intrusive measure among equally effective alternatives.⁶² Permanent or regularly recurring traffic management measures are less likely to qualify as reasonable under this exception than targeted measures.⁶³

In exceptional circumstances Article 3(3) allows providers to depart from these rules, allowing them to differentiate between specific content, applications, and services. This differentiation can include blocking, slowing down, restriction, etc., of traffic, which is not normally permitted under the reasonable traffic management exception. This is only possible where the providers are either (1) complying with specific EU or national law or court orders; (2) to preserve the integrity and security of the network; or (3) to prevent impending network congestion and mitigate the effects of exceptional or temporary network congestion, provided that equivalent categories of traffic are treated equally. Temporary congestion is explained in Recital 15 as situations where the demand for specific content, applications, or services: or the number of network users rise significantly over a short period of time. Exceptional congestion applies to unpredictable and unavoidable circumstances due to technical failures or emergency situations. In contrast to the other justifications, ISPs must continue to treat equal categories of traffic equally even under these circumstances. They may though still deviate from the general prohibition of blocking, throttling etc. as long as it is done in an application-agnostic way⁶⁴ and adheres to the principle of proportionality.⁶⁵ The exception is designed to

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⁵⁸ Ofcom, What is Net Neutrality?

⁵⁹ BEREC *Guidelines*, para [60].

⁶⁰ Ibid, para [61].

⁶¹ Ibid, para [74].

⁶² Ibid, para [61].

⁶³ Ibid, para [73].

⁶⁴ Ibid, para [91].

⁶⁵ Ibid, para [92].

apply to temporary measures, not as a substitute for network expansion⁶⁶ or as a loophole to circumvent the non-discrimination rule.⁶⁷

The more astute reader will have noticed that none of this appears to specifically prohibit the practice known as zero rating. Zero-rating is when an ISP applies 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). For example, if an internet access service does not charge a user for the data used to access a specific music streaming application or all music streaming applications, then the ISPs is zero-rating those applications. Even BEREC when asked the question 'is zero-rating allowed under the Regulation?' answered: 'It depends'. The BEREC guidelines advised that zero rating is allowed (subject to competition assessments) unless 'all applications are blocked (or slowed down) once the data cap is reached except for the zero-rated applications [as this] would infringe Article 3(3).'⁷⁰

Recently zero rating has become the first part of Article 3(3) to be litigated. *Telenor Magyarország Zrt. v. Nemzeti Média- és Hírközlési Hatóság Elnöke*, ⁷¹ is a 2020 decision of the CJEU in response to a reference from Hungary. Telenor is a Hungarian MNO. It offered two specific data bundling packages, which were at issue in the case "MyChat" and "MyMusic." MyChat was a bundled product containing a 1GB of data for use without restriction, and which permitted the use of six specific online communication applications, namely Facebook, Facebook Messenger, Instagram, Twitter, Viber and Whatsapp, under a 'zero tariff' system. That is their use did not deduct from that 1 GB data limit. Once the subscriber reached the plan's data limit, they could continue to use those applications without restriction, while measures slowing down data traffic would be applied to all other applications and services. "MyMusic" packages operated in much the same way, although the favoured apps and services for which the applicable data limits did not apply were those offering streaming music and/or radio services such as Apple Music, Deezer, Spotify and Tidal. Like "MyChat," once the overall data limit was reached, the user would continue to be able to access those preferred services without restriction while measures blocking or slowing down data traffic were applied to all other services and applications. ⁷²

The case turned largely on the interplay between the three subsections of Article 3. Article 3(1) which establishes the affirmative right of end users to access and distribute information and content online and to use online applications and services equally and without discrimination; Article 3(2) which allows agreements between providers and end users as to price, data volume, data speed, and any commercial practices of the provider; and Article 3(3) which imposes affirmative obligations on the service providers to treat all internet traffic equally and without discrimination. The Court found that Article 3(2) indicated that Article 3(1) was not intended to limit agreements and commercial practices of a given provider of internet access services to a particular end user. In considering Article 3(1) courts should not look at such agreements individually, but to provide for an overall assessment of that provider's agreements and commercial practices.⁷³ This meant that practice of zero-rating was possible under Article 3 but given that "such [zero-rating] agreements on a significant part of the market is liable to limit the exercise of end users' rights"⁷⁴ they could only be possible

⁶⁶ Recital 15.

⁶⁷ BEREC Guidelines, para [90].

⁶⁸ BEREC, What is Zero Rating? https://berec.europa.eu/eng/netneutrality/zero rating/.

⁶⁹ Ihid

⁷⁰ BEREC *Guidelines*, para [41].

⁷¹ Joined cases C-807/18 and C-39/19: ECLI:EU:C:2020:708.

⁷² Ibid, [10] – [11].

⁷³ Ibid, [42].

⁷⁴ Ibid, [46].

if they complied with Article 3(3). This requires that traffic management is not applied on "commercial considerations" and that when Telenor applied restriction blocking or slowing down data traffic to all other services and applications but not to the preferred services they were doing so on "commercial considerations". As a result Telenor were found to be in breach of Article 3(2) as once the 1GB of data was consumed Telenor treated different sources of data differently and in a way which limited the exercise of the rights of end-users laid down in Article 3(1); and in breach of Article 3(3) as they used measures for the blocking or slowing down of traffic based on commercial considerations.⁷⁶

This leaves zero rating practices in a limbo. Technically there is nothing to prevent a provider of internet access services from adopting zero rating agreements. They can decide to offer a service unrated to end users within Article 3. However, once the user consumes their allotted data allowance then according to *Telenor* the provider cannot distinguish between zero-rated services and other services in applying any use restriction. This limits the value of zero-rating services, you can use them to keep users who would otherwise go over their data cap due to use of the zero-rated service within their cap, but once the cap is breached the service provider must either permit the continued use of all data services unimpeded or must place technical measures against all data services including the preferred services.

8.2.3 Article 4: Transparency measures for ensuring open internet access

To ensure compliance with the open internet principles of Article 3. Article 4 provides the tools for the necessary scrutiny of the actions of providers. It begins by requiring providers to supply basic information:

- 1) Information on how traffic management measures applied by that provider could impact on the quality of the internet access services;
- 2) a clear and comprehensible explanation as to how any volume limitation, speed and other quality of service parameters may in practice have an impact on internet access services;
- 3) a clear and comprehensible explanation of how any services offered by the provider and optimised for specific content, applications or services, to which the end-user subscribes might in practice have an impact on the internet access services provided to that end-user;
- 4) a clear and comprehensible explanation of the minimum, normally available, maximum and advertised download and upload speed of the internet access services; and
- 5) a clear and comprehensible explanation of the remedies available to the consumer in accordance with national law in the event of any continuous or regularly recurring discrepancy between the actual performance of the internet access service regarding speed or other quality of service parameters and the performance indicated.⁷⁷

In addition, by Article 4(2), providers are required to put in place transparent, simple and efficient complaints procedures. All these requirements are in addition to pre-existing transparency requirements on transparency of tariffs and must carry put in place by the Universal Services Directive⁷⁸ and in domestic law.⁷⁹ In their guidance to National Regulatory Authorities BEREC indicate that to comply with Article 4(1) any

⁷⁷ Regulation 2015/2120/EU, Article 4(1).

⁷⁵ Ibid, [51] – [52].

⁷⁶ Ibid, [55].

⁷⁸ Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive).

⁷⁹ Regulation 2015/2120/EU, Article 4(3).

information published by providers must be clear and comprehensible. BEREC suggests five characteristics required to meet this standard:

- 1) it should be easily accessible and identifiable for what it is;
- 2) it should be accurate and up to date;
- 3) it should be meaningful to end-users, i.e. relevant, unambiguous and presented in a useful manner;
- 4) it should not create an incorrect perception of the service provided to the end user; and
- 5) it should be comparable at least between different offers, but preferably also between different ISPs, so that end-users are able to compare the offers and ISPs in such a way that the comparison can show differences and similarities.⁸⁰

BEREC also offer additional guidance on the five types of basic information required by Article 4(1). In relation to "information on how traffic management measures [are] applied" BEREC note that regulators want to ensure that "ISPs include in the contract and publish a clear and comprehensive explanation of traffic management measures applied...[and] how the measures might affect the end-user experience in general and with regard to specific applications."⁸¹ With respect to "how any volume limitation, speed and other quality of service parameters may have an impact on internet access services" BEREC recommend that "the most important QoS parameters are delay, delay variation (jitter) and packet loss. These other QoS parameters should be described if they might, in practice, have an impact on the internet access service and use of applications."⁸² In relation to available upload and download speeds BEREC suggest "upload and download speeds should be provided as single numerical values in bits/second (e.g., kbit/s or Mbit/s). In order for the contractual speed values to be understandable, contracts should specify factors that may have an effect on the speed, both within and outside the ISP's control."⁸³

These transparency provisions are designed to ensure an open, fair, and functional marketplace for internet access. They are to allow end users to compare the services of competing ISPs and MNOs to ensure an effective market regulation of open internet principles.

8.2.4 Article 5-6: Supervision and enforcement, Penalties⁸⁴

Supervisory authority is given to "national regulatory authorities" who are required to "closely monitor and ensure compliance with Articles 3 and 4".85 Those regulatory authorities are given permission to "impose requirements concerning technical characteristics, minimum quality of service requirements and other appropriate and necessary measures on one or more providers of electronic communications to the public, including providers of internet access services."86 To ensure national regulatory authorities have access to sufficient information to establish compliance they are awarded a number of investigatory powers by Article 5(2), requiring that providers of electronic communications to the public make available to the regulator

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⁸⁰ BEREC Guidelines, para [130].

⁸¹ Ibid, para [135].

⁸² Ibid, para [137].

⁸³ Ibid, paras [140] - [141].

⁸⁴ For this section Article 5a on Retail charges for regulated intra-EU communications is not within scope. This is a technical measure setting the retail price (excluding VAT) charged to consumers for regulated intra-EU communications at no more than EUR 0.19 per minute for calls and EUR 0.06 per SMS message. This is not relevant to our network neutrality analysis.

⁸⁵ Regulation 2015/2120/EU, Article 5(1).

⁸⁶ Ibid.

"information relevant to the obligations set out in Articles 3 and 4, in particular information concerning the management of their network capacity and traffic, as well as justifications for any traffic management measures applied.".

In their guidelines BEREC note there are three types of NRA actions to monitor and ensure compliance with Articles 3 and 4. These are:

- (1) Supervision, which encompasses monitoring by the NRA as set out in Article 5(1), and facilitated by the powers to gather information from ISPs in Article 5(2), on: Monitoring of restrictions of enduser rights (Article 3(1); Monitoring of contractual conditions and commercial practices (Article 3(2)); Monitoring of traffic management (Article 3(3)); Monitoring and assessment of IAS performance and impact of specialised services on the general quality of IAS (Article 3(5) and Article 4); and Monitoring of transparency requirements on ISPs (Article 4)
- (2) Enforcement, which can include a variety of interventions and measurements as set out in Article 5(1); and
- (3) Reporting by NRAs on the findings from their monitoring, as set out in Article 5(1).87

Supervision includes the power to collect traffic management information by evaluating traffic management practices, ⁸⁸ requesting more comprehensive information from ISPs about implemented traffic management practices, requesting records on traffic management measures/practices applied or by requesting information from ISPs relevant to following up on complaints received by NRAs. ⁸⁹ They may also conduct technical traffic management measurements, ⁹⁰ and develop appropriate monitoring policies for detecting infringements. ⁹¹

Enforcement can take several forms and NRAs are authorised to: (1) require an ISP to take measures to eliminate or remove the factor that is causing degradation; (2) set requirements for technical characteristics to address infringements of the Regulation, for example, to mandate the removal or revision of certain traffic management practices; (3) impose minimum QoS requirements; (4) impose other appropriate and necessary technical measures; (4) issue cease and desist orders in case of infringements; (5) impose cease orders for specific specialised services unless sufficient capacity is made available for IAS within a reasonable and effective timeframe set by the NRA, and (6) impose fines for infringements, in accordance with national law. BEREC make clear that NRAs may "In the case of blocking and/or throttling, discrimination etc. of single applications or categories of applications, prohibit restrictions of the relevant ports or limitations of application(s) if no valid justification is provided for non-compliance with the Regulation, especially Article 3(3) third subparagraph. Measures under Article 5(1) could be particularly useful to prohibit practices that clearly infringe the Regulation including: (a) prohibiting the blocking and/or throttling of specific applications; (b) prohibiting a congestion management practice which is specific to individual applications; (c) requiring access performance, such as minimum or normally available speeds, to be comparable to

⁸⁷ BEREC Guidelines, para [167].

⁸⁸ Allowed by Regulation 2015/2120/EU Article 3(3) third subparagraph.

⁸⁹ BEREC *Guidelines*, para [171].

⁹⁰ Ibid, para [172].

⁹¹ Ibid, para [173].

⁹² Ibid, para [178].

advertised/maximum speeds; or (d) placing qualitative requirements on the performance of application-specific traffic." ⁹³

Article 6 requires member states to "lay down the rules on penalties applicable to infringements of Articles 3, 4 and 5 and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive."94 The penalties implemented are to be notified to the Commission by April 2016. An update was given by the Commission in April 2018 where it was noted that 22 Member States had complied with the notification process and six (Austria, Hungary, the Czech Republic, Ireland, Italy and Portugal) were in arrears. 95 This showed a variety of possible penalties from a fine up to €9,600 in Estonia to up to 10% of the turnover of the provider's relevant business for the relevant period in the UK. This will no doubt be of concern to the Commission, the point of a regulation is to harmonise the approach throughout the EU and to have variation in fines to this extent does undermine enforcement harmony. In their later 2019 Report the Commission that "sanctions differ widely between Member States". 96 The note that "in some Member States, penalties are linked to a company's turnover, others have a fixed maximum amount, and some have a combination of the two. For similar violations of Article 3, the fixed maximum amounts range from around €15,000 to €3 million and turnover related maximum fines range from 0.5 % to 10 %. The type of penalties imposed (fines and/or periodic penalty payments with or without the possibility to impose other sanctions such as suspension of activities) also differ between Member States."97 Clearly also of concern to the Commission is a failure to make use of the full range of penalties with the Commission noting that "only very few penalties have been imposed to date and all of them were well below the applicable maximum."98 The level of concern of the effectiveness of the sanctions regime is evident by the Commission's final observation that "since effective, dissuasive and proportionate sanctions are crucial for the correct implementation of the regulation, the Commission is monitoring the implementation of this provision in the Member States."99

8.2.5 Articles 7: Amendments to the Roaming Regulation

⁹³ Ibid, para [179].

⁹⁴ Regulation 2015/2120/EU Article 6.

⁹⁵ Communications Committee Working Document: Sanctions for violations of the Net neutrality provisions under the TSM Regulation, COCOM17-13REV-3, Brussels, 30 April 2018:

https://www.asktheeu.org/en/request/5309/response/17569/attach/3/COCOM17%2013REV%203%20NN%20Sanctions%20final.pdf

⁹⁶ Report from the Commission to the European Parliament and The Council on the implementation of the open internet access provisions of Regulation (EU) 2015/2120: COM(2019) 203 Final, 10:

 $[\]frac{\text{https://www.eumonitor.eu/9353000/1/j4nvke1fm2yd1u0}}{\text{en.pdf}} \text{ j9vvik7m1c3gyxp/vky3e7xrdjwp/v=s7z/f=/com(2019)203}}$

⁹⁷ Ibid.

⁹⁸ Ibid, 11.

⁹⁹ Ibid.

Finally, ¹⁰⁰ we have Article 7 which implements EEA wide roaming provisions. ¹⁰¹ With affordable access being an important part of open access the changes made by Article 7 to the Roaming (Recast) Regulation of 2012 ¹⁰² are vital to ensure MNOs do not prevent access to the internet via unreasonable data caps or pricing.

Article 7 introduces six new Articles into the Roaming (Recast) Regulation: Article 6a on abolition of roaming surcharges; Article 6b on fair use; Article 6c on sustainability; Article 6d on Implementation; Article 6e on provision of services and Article 6f on transitional arrangements.

The main substantive provision is the new Article 6a. This provides that from 15 June 2017 roaming charges for calls, SMS, MMS and data roaming are to be abolished across all EEA states. This effectively allows customers to use their domestic data allowances anywhere within the EEA at no extra cost, thus ensuring open internet access by MNO is the same anywhere in the EEA as it would be at home. This is subject to a fair use limitation found in Article 6b "to prevent abusive or anomalous usage of regulated retail roaming services by roaming customers, such as the use of such services by roaming customers in a Member State other than that of their domestic provider for purposes other than periodic travel." The type of mischief this is designed to prevent is where a customer takes out a mobile package include data access in one member state where the price of access is much lower and then spends considerable time using their access in another member state where the price of access is normally higher beyond that which would be expected in periodic travel. So, for example a customer takes out a low-cost internet access package in Estonia then spends the next three months working in France where the normal cost of access would be higher. In this case the roaming provision of the Estonian contract may be terminated as not being within fair use.

A similar concern about costs transference and sustainability can also be seen in Article 6c. This specific provision allows a MNO who cannot sustainably support roaming to apply for authorisation from a national regulatory authority to apply a roaming surcharge. Article 6c(3) gives specific guidance to the national regulatory authority in evaluating such applications: "the national regulatory authority shall assess whether the roaming provider has established that it is unable to recover its costs in accordance with paragraph 1, with the effect that the sustainability of its domestic charging model would be undermined. The assessment of the sustainability of the domestic charging model shall be based on relevant objective factors specific to the roaming provider, including objective variations between roaming providers in the Member State concerned and the level of domestic prices and revenues." There have been some concerns that this exemption, which the media refer to as a loophole may undermine the effectiveness of EEA data roaming. In 2017 in an article in *New Europe* Alexandros Koronakis, Irene Kostaki and Emily Buice suggested the exemption allowed for in Article 6c might allow MNOs to escape the data roaming requirement. They noted that "at least six countries have received applications from at least 11 mobile operators" under Article 6c and that "in at least three more countries, companies are finding creative ways to get around the regulation by

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¹⁰⁰ For our purposes. There remains the Article 9 Review Clause which requires the Commission to review Article 3-6 every four year, the first report of which is referred to at 96 above and which made no proposals for amendment to the Regulation: and Article 10 which is the implementation provision. Article 8 which was a minor amendment to the Universal Service Directive was repealed in 2018 by the Recast Directive - Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (Recast).

¹⁰¹ UK readers might note the UK has not remained part of the EU Roaming agreement post-Brexit. UK based providers can now charge roaming fees for visits to the EU and indeed some have already begun to do so.

¹⁰² Regulation (EU) no 531/2012 of the European Parliament and of the Council of 13 June 2012 on roaming on public mobile communications networks within the Union (recast).

new – domestic-only packages."¹⁰³ They detail that "in Lithuania, three companies with over 95% of the mobile market share (Bite Lithuania, Tele2 and Telia Lithuania AB) have seen their applications approved, leaving their customers with an increased communication cost when they take their summer holidays this year" while "Belgium has received two requests, and, as of publication, accepted the application of VOO."

Despite some initial derogations however, the roaming provisions have been generally received as being a success. In 2018 Eurobarometer reported that for mobile internet there was "an increase of eight percentage points of respondents who used them as often as in their country (34% v 26%), this represents an increase of three points compared with respondents who travelled after June 15 in 2017 (31%)" and that "compared to 2017, travellers are now less likely to say they restricted their mobile phone use in some way while travelling in another EU country (-9%), and in particular they are less likely to have switched off data roaming (-6%).¹⁰⁴ In 2019 the Commission issued their Report on the review of the roaming market.¹⁰⁵ There they found that "in Q1 2019, only 1.3% of the total EU/EEA retail roaming data traffic was subject to a surcharge due to the derogation" 106 and that "the number of derogations has been decreasing over time with the regulated decline in maximum wholesale roaming prices: in June 2019, none of the 3 MNOs in Estonia asked for renewal of the derogation; 1 out of 3 MNOs in Lithuania did not renew its application either, and only 3 MNOs renewed their applications in France compared to 11 in 2017." The Report also found the policy of "Roam Like You Are at Home" to be a great success reporting that "the end of roaming fees resulted in a rapid and massive increase in roaming consumption in the EU/EEA after 15 June 2017. In summer 2018, the use of roaming data in the EU/EEA was 12 times higher than in summer 2016. The volume of roaming phone calls was 3 times higher. In the first quarter of 2019 the increase compared to the spring 2017 was by a factor 9 for data and 2.2 for voice. In summer 2018, travellers used on average 440 MB of roaming data per month, compared to 60 MB in summer 2016."108 Of course since January 2021, as a result of Brexit, the UK is no longer part of the EU data roaming regime. This means UK MNOs can impose roaming charges on both EEA customers visiting the UK and UK customers visiting the EEA. The first UK network to announce the reimposition of roaming fees is EE which has announced that from January 2022, they will charge customers who join or upgrade their contract after 7 July 2021 £2 a day to use their tariff allowances in EEA destinations, except Ireland.109

8.3 Conclusion

The need for legally mandated net neutrality, or open internet, is not clear. There are some who believe that as internet access is a market it should be allowed to operate as a market without external interference from government or regulators. In other words, net neutrality regulation is an unjustifiable intervention into the

¹⁰³ Alexandros Koronakis, Irene Kostaki & Emily Buice, "Is EU Roaming-free dream crumbling?" *New Europe*, 5 June 2017: https://www.neweurope.eu/article/eu-roaming-free-dream-crumbling/.

¹⁰⁴ Flash Eurobarometer 468, *The end of roaming charges one year later*: https://europa.eu/eurobarometer/api/deliverable/download/file?deliverableId=66037.

¹⁰⁵ Report from the Commission to the European Parliament and the Council on the review of the roaming market COM(2019) 616 final, Brussels, 29.11.2019: https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=63423.

¹⁰⁶ Ibid, 9. ¹⁰⁷ Ibid.

¹⁰⁸ Ibid 6.

¹⁰⁹ Anthony Reuben, "Mobile roaming charges in Europe: What you need to know" *BBC News* 24 June 2021: https://www.bbc.co.uk/news/business-45064268.

market. This is the position held by economists Robert Hahn and Scott Wallsten. In 2005 in their paper *The Economics of Net Neutrality* ¹¹⁰ they argued, "net neutrality is actually a friendly-sounding name for price regulation." They believe that net neutrality rules disincentivise investment by telecommunications companies in both network hardware and innovative software and services as they are unable to recover the full costs of their investments. In the words of Hahn and Wallsten "A mandate erodes incentives to provide broadband Internet access and could prevent new applications or services from ever being developed."

The position Hahn and Wallsten hold is prevalent in the economics literature. In his 2011 paper *Economics of net neutrality: A review*, ¹¹¹ Gerald Faulhaber notes that "given the level of interest in network neutrality, one could be forgiven that the Internet is being violated by rapacious broadband ISPs and there is not a moment to lose in protecting its openness. Since we have had broadband ISPs in the US for over a decade, one might think that the practices of blocking, discrimination, and disadvantaging competitors would be rife, and such practices well-documented. One might think, but one would be wrong."¹¹² He goes on to note that in making the 2010 Open Internet Report and Order the FCC noted four examples of abusive behaviour in practice. This leads him to comment: "in over a decade, there were only four examples of purported misconduct (one which was denied by the courts and another which didn't even rise to the level of a complaint) for the entire broadband ISP industry. By any standard, four complaints about an entire industry in over a decade would seem to be cause for a commendation, not for restrictive regulations."¹¹³ The argument made by Faulhaber is the standard argument from economics. Allow markets to function and then regulate for market failures only where there is clear evidence of failure or harm. However, for Faulhaber there is no evidence of such a failure or harm.¹¹⁴

Of course, one cannot be sure that markets will continue to function efficiently. The answer to this problem is to employ competition law to ensure that where market inefficiencies do lead to abuse these are corrected. This has been advocated by among others Federal Trade Commissioner Maureen Ohlhausen. In her 2016 paper *Antitrust over Net Neutrality: Why we should take competition in broadband seriously,* she argues that "market forces and antitrust policy can not only protect competition in ISP-related markets, but also safeguard nonmonetary goals like free speech and openness, at least to the extent that consumers share those values." This is achieved through vigorous application of competition law: "Antitrust law is a formidable tool for promoting the public interest. If harmful exclusion, throttling, or paid prioritization by ISPs occurs, antitrust is well positioned to tackle those cases." These combined arguments lead to the common position of most economists and at least some competition lawyers, that Internet access and carriage is no different to any other market. It is best regulated through competition in the market and when or if competition fails due to abuse of market inefficiencies, then competition law can step in.

These findings seem to suggest net neutrality is more of a philosophical concern than an actual concern. This brings us back to the concerns of net neutrality proponents such as Sir Tim Berners-Lee. Why should the creator of the World Wide Web hold such strong concerns if the market works? The answer is to be found in an early intervention to the debate on net neutrality. In 2006 he wrote a blog entry, unfortunately no longer

¹¹⁰ Robert Hahn and Scott Wallsten, "The Economics of Net Neutrality" (2005) 3 *The Economist's Voice*: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=943757.

¹¹¹ Gerald Faulhaber, "Economics of net neutrality: A review" (2011) 3 Communications & Convergence Review 53.

¹¹² Ibid, 56.

¹¹³ Ibid, 57.

¹¹⁴ Ibid. 58

¹¹⁵ Maureen Ohlhausen, "Antitrust over Net Neutrality: Why we should take competition in broadband seriously" 15(1) Colorado Technology Law Journal 119 (2016), 133.

¹¹⁶ Ibid, 141.

available, called *Net Neutrality: This is serious*. He opened the entry with twelve words which explains the failure of the market approach – 'When I invented the Web, I didn't have to ask anyone's permission.' Here Berners-Lee explains what is unique about the Internet. The open architecture of the network allows anyone to build anything on the network. Net neutrality protects this. Markets may be generally effective regulators but at a specific level, where gatekeepers can make decisions about a single piece of technology, markets don't always work. This suggests that net neutrality is about more than just markets and market power.

This leads to the suggestion that net neutrality is about principles rather than economics. Lucie Audibert and I argue this in our 2016 paper *A Principled Approach to Network Neutrality*. We believe that "mandating network neutrality through regulation is crucial to the protection of fundamental human rights [as well as] to ensure fair competition and innovation."¹¹⁷ For us, the open internet has become part of our everyday lives and is now a vital sphere for democratic discourse and modern living. ¹¹⁸ The Internet is, in our words, "much more than a platform to post pictures of cute cats and silly videos. It has vital democratic and cultural functions and should be considered a public good to which open and free access is a fundamental right."¹¹⁹ This space cannot be allowed to fall under the control of a small number of gatekeepers and in order to preserve the Internet's openness and to expand its access, regulation is required to prevent ISPs from carrying out illegitimate discrimination of certain types of data: net neutrality regulations.

This approach negates the need to explore market power, abuse, efficiency, or any of the economic arguments. According to this approach we regulate the internet to ensure neutrality not because it is subject to market failure but because it should be managed according to the open network principles which applied when it was designed and built. This is what the Open Internet Regulation does, and it is why we must value it.

¹¹⁷ Lucie Audibert and Andrew Murray, "A Principled Approach to Network Neutrality" (2016) 13 Script-Ed 118, 120.

¹¹⁸ Ibid, 134.

¹¹⁹ Ibid. 119.