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Network Neutrality: Potential impact on free speech and the right to information

Abstract: The ongoing debate in the EU and the US over the shape of the Internet focuses mainly on the technological and economical aspects of the issue. This paper is meant to be an introduction to the debate on the impact of the network neutrality on free speech and the right to information in the field of political science. The author tries to identify potential threats from the economic, technological and political perspective, as they are strongly interconnected.

Fundamental human rights can benefit from enforcing network neutrality regulations; however, a much more important issue is related to the question of what would happen to the freedom of speech and the right of information if the regulations were gone.

Key words: the network neutrality, freedom of speech, the right to information

The influence of modern technologies, particularly these based on the Internet, on people's lives is constantly growing. The already existing network services are gaining more and more importance, while the new network services are being invented everyday and the impact of the Internet on the innovation is obvious. The number of the Internet users is constantly increasing and for many people it is hard to imagine a life without the network. It is estimated by the International Telecommunication Union (ITU), World Bank, and the United Nations Population Division that the number of the Internet users (ca. 3.5 billion in 2016) is exceeding 3.7 billion in 2017, which means that almost 40% of the world's population is connected (Internet Live Stats). The quality of the Internet access is also improving as there is a 15% year-to-year growth of the global average connection speed (Akmai's, 2017, p. 12).

Yet, the growing dependence on the Internet as a tool of social communication, shopping platform, source of entertainment and in many other fields poses certain risks, especially when one thinks of the rapid

commercialization and unfair practices of the big Internet players. As the Internet has became an essential way of social communication, the way it works heavy influences civil rights.

The basic idea behind the net neutrality can be summarized in one sentence: Data transmitted over the Internet should be treated equally, regardless of their type, content, origin or destination. In other words, the Internet Service Providers should not discriminate any data and transmit all information on the same terms. As it is pointed out by Hahn and Wallsten (2006, p. 1), “[…] broadband service providers charge consumers only once for Internet access, do not favor one content provider over another, and do not charge content providers for sending information over broadband lines to end users.”

The neutral network is often described as “dumb”. This originates form an end-to-end principle presented by Saltzer J. H. et al. (1984) that was based on concepts developed by computer network pioneers Paul Baran and Donald Davies. According to this model, all of the important processing of information takes place at the end nodes of the network, while transmitted data is not altered in any way. This can be compared to a classic postal service where the end nodes would be people writing and reading letters. All of the other infrastructure is just to relay the letter from one point to another. Because such a network is very simple, it is universal at the same time and a plethora of services can use it. Moreover, it boosts innovation, as there are almost no technological boundaries, except for the very access to the Internet.

The above-mentioned principle has led the Internet to evolve into a tool that is essential in contemporary communication, enhances the democratic process, gives unparalleled access to knowledge and allows unprecedented level of self-expression. Shears and McDiarmid (2016, p. 33–34) emphasize the attributes that have made it possible:

Global: though rather obvious, as we got used to the idea of communicating instantaneously with people on different continents, it’s worth emphasizing.

User-Centric: the pluralism of the Internet is overwhelming. In terms of technologies a user can choose from and content that can be explored. Freedom to navigate in this vast space is something that gives true power and lets to fully exercise the right to information.

Decentralized: the Internet was built in such a way that there are no central points; every part of the net carries the same weight. What is more it is not centrally controlled.

Open and Competitive: when compared to the traditional media, there is a very low entry threshold. The Internet can accommodate everybody who wishes to communicate. On top of that, the communicational hierarchy is rather flat, unlike in case of television or newspapers. On the Internet everyone can reach an audience of thousands or millions, at least in theory.

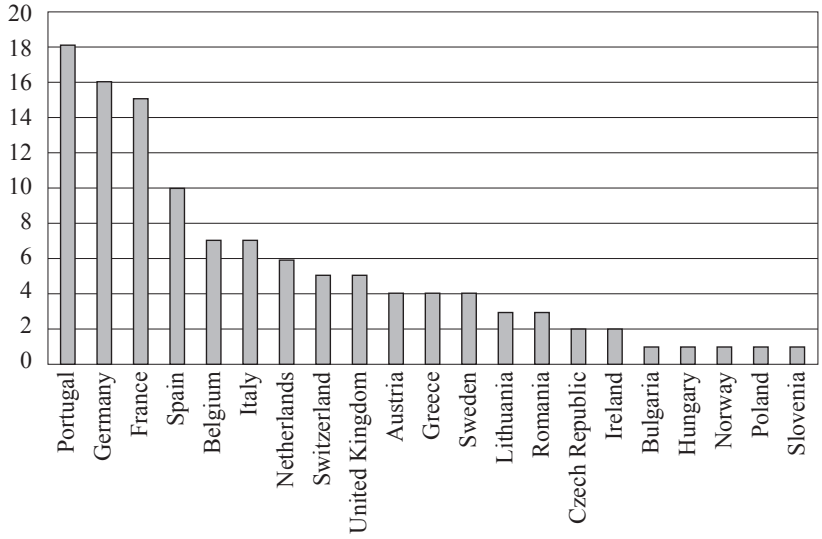
However, in order for the public sphere to benefit from the network, it must function without problems. Unfortunately, not everything works smoothly.

The term “network neutrality” was first used by Tim Wu in his paper “Network Neutrality, Broadband Discrimination” (2003), which quickly became canonical in the community of the Internet researchers. It should be mentioned that papers presenting similar concepts had been published before, just to mention a paper by Lemley and Lessig “The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era” (2001) (see footnote 1, Wu, 2003, p. 141). Wu argued that in the following years, the conflict between Internet Service Providers and public interest would grow, possibly leading to the introduction of some kind of regulations. From today’s perspective, Wu was definitely right, as the subject was widely discussed. Both in Europe and in the USA new regulations were introduced in 2015 respectively: “Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning the open Internet access and amending Directive 2002/22/EC on universal service and users’ rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union” (2015) and “A Rule by the Federal Communications Commission on 04/13/2015 Protecting and Promoting the Open Internet” (2015). Both new regulations contain provisions for the network neutrality and have been praised by the network neutrality supporters. The main goal behind introducing these regulations has been to ensure that the heavyweight players on the Internet will not abuse the balance.

However, the battle for the open Internet is far from over. Even though the court ruled in favor of the net neutrality in 2016 after telecommunication corporations sued to overturn the 2015 rule (Kang, 2016), the current administration is in process of reverting to the pre-2015 regulations (Kang, 2017). The public debate in the US is very fierce (Brotman, 2017). In Europe, various organizations supporting the network neutrality alarm that the guidelines stated in the 2015/2120 Regulation and later

in BEREC Guidelines on the Implementation by National Regulators of European Net Neutrality Rules (2016) are not enforced in some countries (*Net neutrality: one year after*, 2016; respectmynet.eu/list/).

Chart 1. The number of reported net neutrality violations in Europe



Source: Own work, based on http://respectmynet.eu/list/.

When comparing the network neutrality regulations in EU and USA one must take into consideration the fact that these two entities differ on constitutional, economic and technological level. The competition among the Internet Operators is fiercer in Europe, which disallows certain actions like e.g. limiting particular network protocols, what happened in the past in America (Marcus, 2016). Thus, the debate in Europe is somewhat calmer.

There are several categories of entities that are playing crucial roles in the debate over the shape of net neutrality regulations, just to mention The Internet Service Providers (ISP), Content and Application Providers (CAP), Regulators (RG), and various lobbying groups such as human rights organizations, consumer organizations, civil right groups and technological companies.

To summarize quickly, both sides of the debate, the ISPs and technological companies are generally against imposing any net neutrality regulations. Their main arguments are as follows:

– such legislation is not necessary as the Internet has worked just fine without it,
– such legislation would slow down or even completely stop the development of the Internet infrastructure, because it would make it harder for many companies to recover on their investments (Letter, 2017),
– “the market will regulate itself.”

On the other hand, CAPs and civil rights groups are in favor of net neutrality, mainly for following reasons:

– enforcing the net neutrality will encourage democratic participation and empower free speech,
– lack of such regulations is going to harm freedom of expression in the Internet and restrict basic human rights, e.g. right to information,
– in the neutral network, new, innovative ideas and companies will have better chance to emerge and possibly succeed, boosting competition.

These and other arguments have been extensively discussed and many researchers have explored them for some years (see: Krämer et al., 2013) for an extensive review of literature).

It has been made a point in the discussion that the traffic prioritization is required in order to prevent network congestion and maintain Quality of Service. Some of the Internet services, like VoIP or on-line gaming are much more prone to delays that, e.g. video-streaming or file downloading. It is generally agreed that such practices must be based on purely technological grounds. Unfortunately, it is hard to determine where the technical necessity ends and the arbitrary decisions come into play. In other words, there is a possibility that some Network Operators may use Quality of Service as an excuse for prioritizing certain information.

Network neutrality is very often mentioned with reference to the free speech. There is no doubt that the latter is a foundation of modern democratic society and is a fundamental human right. Sometimes a direct parallel is used between the two concepts. The net neutrality is hailed as the “First Amendment to the Internet” (Cammaerts, 2011). The right to information is a hard to overrate. Human and civil rights also appear in the debate on the shape of the Internet. The general concept of the Internet heavily relies on these two ideas. Being what it is today, the Internet offers unprecedented possibilities of participating in, among others, social and political activities that are not restricted by national borders, which is mentioned in the following passage from The Universal Declaration of Human Rights (1948):

> “Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.”

Evolving from this document, the protection of the freedom of speech and the right to information on the Internet is explicitly stated by various bodies, including the UN (La Rue, 2011).

The condition *sine qua non* of exercising these rights in the cyberspace is access to the Internet. It is also called the right to the broadband or freedom to connect and people begin to consider them as one of the fundamental human right. A Global Internet User Survey conducted by internetsociety.ngo shows some interesting data (2012):

– 83% of respondents agreed or agreed strongly that access to the Internet should be considered a basic human right,
– 89% agreed or agreed strongly that the Internet access allows freedom of expression on all subjects, and 86% agreed or agreed strongly that freedom of expression should be guaranteed,
– 60% of respondents agreed or agreed strongly that the Internet access has contributed significantly to civil action and political awareness in their country.

In general, if a third-party limits access to certain contents published on the Internet, it affects the right to information. If particular services providing means of communication are blocked or discriminated then the freedom of speech and right of expression are endangered.

Vertical integration is a phenomenon that is often attributed to Andrew Carnegie, a 19th century entrepreneur who controlled the whole chain of supply of his company, Carnegie Steel. The term has been evolving over the years and recently has resurfaced in the Internet market to designate a collaboration or even a merger between the Internet Service Providers (or Network Operators) and Content and Application Providers. While there is nothing wrong in the general idea, such a move may pose certain threats to the rights of the users. There is a possibility of a scenario in which a company will discriminate (“throttle”) services and/or content of its competitors, simultaneously promoting its own (Guo et al., 2010, p. 248). This can be especially dangerous if media organizations are a part of a corporation. Representing particular political views, a media outlet can drastically influence their users. Certain websites may be functioning smoothly and opening quickly, while others may load very slowly or may not load at all and the users will not be aware of the reasons. There are

many examples from all over the world of the media outlets that are politically biased. Therefore, such collaborations or mergers can drastically violate the right to information.

Zero-rating is a practice of ISPs which offers unlimited access to selected content, services or applications on (primarily) mobile networks; however, it limits access to the remaining Internet resources with a specified data cap (limit). While zero-rating does not directly limit or block access to any content (at least until the data transfer cap is reached), it may discourage the users from accessing particular services, especially if they are not included in the zero tariff. This can lead to the limitation of their right to information. Large international content providers will usually prevail at the expense of their smaller competitors. Any kind of zero-rating, even limited to a certain category of content (e.g., music streaming), creates an economic incentive toward one option and disturbs the user’s freedom to choose particular services. In this case, one may think of restricting innovation and freedom of expression as significant threats related to the impact on diversity and innovation of content, services or applications., Being attracted by the short-term benefits of zero-rating, many people will not notice it. Whether the policy is legal in light of the EU regulations is not clear (*What is zero rating?*, 2017). As mentioned above, it is mainly used in mobile (cellular) networks, whose popularity is growing in many countries, including Poland (*Raport o stanie*, 2017). Thus, the clarification on this matter is desperately needed.

Not very often encountered, however, the Internet ‘bundling’ is a practice that strongly contradicts principles of the Internet neutrality. It can be described as a reversed zero-rating. ‘Bundling’ signifies an offer of access to the Internet constructed on principles similar to that of a cable TV. There is a social package with minimal data cap that allows access to a limited number of services. In order to use other services a user needs to buy a subscription package. Such a practice can severely limit users’ freedom of speech and right to information in a way very similar to zero rating.

Another aspect of unfair practices of discriminating certain data by the ISPs that should not be overlooked is the transparency. In many cases, operators ‘throttle’ services and neglect to inform about it. This in turn pushes an unaware user in the direction of other services or contents. Arguably the most notable example of ‘secret throttling’ is a 2008 case of American ISP Comcast which on purpose interfered with the data sent using the BitTorrent protocol and denied such actions in response to the

users’ enquiries (*FCC Comcast Ruling*, 2008, p. 3). The ISP argued that it was necessary due to network congestion, yet the FCC argued the real reason was BitTorrent “become a competitive threat to cable operators such as Comcast because the Internet users have the opportunity to view high-quality video with BitTorrent that they might otherwise watch (and pay for) on cable television” (*FCC Comcast Ruling*, 2008, p. 3).

A very dangerous practice that can be employed by the Internet Operators is the Deep Packet Inspection. In order to determine what kind of data is being transferred to/from the user it can be ‘inspected’, usually by some form of a firewall. This is a far more oppressive technology than the one usually implemented which examines only the header of the packet. Looking into the payload directly, it harshly violates the right to privacy. The latter is beyond scope of this paper, but the bottom line is, that such technologies can very precisely pick any type of content from any Internet connection and disturb it. In other words, it gives ISPs a way to selectively block any information that is sent or received, making it nearly impossible for the user to realize what is happening. Paradoxically, blocking whole services or websites by ISPs seems a better option as such actions are easier to notice. The biggest danger, however, in the author’s opinion is the sole existence of such a tool that can be used to block any information selectively. If implemented on a large scale, on the level of a country, it becomes extremely dangerous as a government may pressure ISPs to program this tool in such a way to make politically uncomfortable content inaccessible to citizens. In more and more countries, like the UK or Poland, there have been reported examples of political will to censor the Internet. So far, the methods implemented are fairly basic and rely on the IP address, Uniform Resource Locators and Domain Name System. Circumventing such measures is not a difficult task for even a relatively inexperienced Internet user. However, when the net neutrality is infringed by the ISPs most of society has no reason to suspect anything is being blocked. On the other hand, as Shklovski and Kotamraju (2011, pp. 1114–1115) point out, people that are aware of such practices being implemented may engage in forms of self-censorship, trying to avoid topics that can potentially make their site blocked.

While the potential governmental assaults on the freedom of speech and right to information on the Internet does not fall into the scope of this paper, the author feels that it is important to mention the above with reference to human and civil rights in the Internet for such actions can gravely violate them.

Conclusion

Public opinion, researchers and policy makers are mainly focused on economic aspects of the network neutrality. One must not forget about such political and social notions as the freedom of speech and the right to information. It is understandable that these values can be endangered in the cyberspace. Violating the net neutrality can have a strong negative impact on these fundamental rights of the users. And conversely, if the regulations are abode the effect will be definitely positive, even though there are much more threats to the rights in question.

From the perspective of an ordinary person, the absence of net neutrality regulations may cause several consequences. First and foremost, due to traffic prioritization certain Internet services may render less comfortable to use up to the point where they are not accessible at all, which strongly violates the freedom of speech and the right to information. Given that the open Internet increases competition, the lack of proper regulations may also result in increased price for the Internet access. In the long term, the abuse of the network neutrality and in consequence the erosion of the fundamental human rights may even lead to weakening of democratic processes.

It is beyond any doubt, that further research is required to determine the consequences of enforcing the net neutrality regulations and the impact of potential infringements of these regulations on human and civil rights.

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Neutralność sieciowa i jej potencjalny wpływ na wolność słowa i prawo do informacji

Streszczenie

Debata nad kształtem Internetu, która toczy się w Stanach Zjednoczonych i w Europie, skupia się głównie na aspektach technologicznych i ekonomicznych. Celem niniejszego artykułu jest wprowadzenie do dyskusji na temat wpływu neutralności sieciowej na wolność słowa i prawo do informacji na gruncie nauk politycznych. Autor próbuje zidentyfikować potencjalne zagrożenia na z perspektywy ekonomicznej, technologicznej, a także politycznej. Wdrożenie przepisów narzucających neutralność sieciową będzie niewątpliwie korzystne dla podstawowych praw człowieka. Jednak nawet ważniejszą kwestią jest pytanie o stan Internetu, w przypadku gdyby tych przepisów zabrakło.

Słowa kluczowe: neutralność sieciowa, wolność słowa, prawo do informacji