



Yahoo! Response to the European Commission's Public Consultation on the Open Internet and Net Neutrality in Europe

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Yahoo! is pleased to respond to the European Commission's public consultation on the open Internet and net neutrality in Europe, and thanks the Commission for its leadership in this area.

About Yahoo!

Yahoo! attracts hundreds of millions of users every month through its innovative technology and engaging content and services, making it one of the most visited Internet destinations and a world-class online media company. Yahoo!'s vision is to be the centre of people's online lives by delivering personally relevant and meaningful Internet experiences.

Yahoo! Inc. is headquartered in the United States of America (in Sunnyvale, California). It owns and operates the website www.yahoo.com, which is directed at the U.S. market.

Outside of the United States, Yahoo! provides country-specific websites tailored toward local markets. In Europe, our largest markets are in the UK, France, Germany, Italy and Spain.

Our European business operations are headquartered in Switzerland. Many services are now provided through Yahoo!'s EU sites by Yahoo! Sarl (a Swiss company), and other services will continue to be provided by a variety of Yahoo! companies in Europe. For convenience, we use "Yahoo! Europe" to refer to the companies providing our EU sites and services to our EU sites.

The Importance of the Internet

The Internet is of critical social and economic importance to Europe. It will be a key driver for economic development, enabling economic relationships between actors who would never otherwise have opportunities to do business together. Similarly, it will continue to enable new forms of communication between people who would otherwise never have opportunities to share ideas. The Internet is in a sense the first truly global infrastructure. The scale of the potential it has to foster global trade and dialogue has never been seen before. But it is by no means a foregone conclusion that this potential will be fulfilled. It is fragile and must be protected.

Fundamental Principles

There are many threats to the Internet as we know it today. Many jurisdictions are flirting with various ways to wall off parts of the Internet. Some jurisdictions attempt to justify these activities by citing regulatory reasons (e.g. protecting privacy by keeping personal data from flowing out),



political reasons (preventing communications with undesirable influences), or economic reasons (e.g. helping support the development of domestic players to strengthen them against foreign market entrants). Many stakeholders, including for example intellectual property rights holders and privacy advocates, perceive the Internet to be a dangerously lawless area that needs to be strictly policed, wither by market players themselves, or by political or judicial authorities.

“Net neutrality”, however, seeks to address a different category of perceived threats. These have their roots in economic forces. In particular, net neutrality advocates contend that network infrastructure providers must be prevented from undertaking certain types of commercial activities in order to recoup their significant capital investments.

Yahoo! regrets the sometimes ideological tone of net neutrality discussions on both sides of the Atlantic, and is convinced that consensus is possible as long as policy makers can remain true to some fundamental principles. We are very pleased to note that the Commission appears to have a strong presumption in favour of preserving the ‘open and neutral character of the Internet in order to promote “the ability of end users to access and distribute information or run applications and services of their choice” (Article 8(4)(g) of the Framework Directive). This is clearly a user-focused approach, and as such is a good starting point for debate.

It is important to note that “end users” includes business users and private individual users of the Internet. Both have relied on the expectation that by purchasing access to the Internet, they have paid for access to the whole Internet, including the ability to communicate unhindered with any and all other end users. This has broad implications for policy well beyond the regulatory framework for electronic communications.

In the economic sphere, the regulatory framework for electronic communications only considers internet connectivity as a retail service to consumers, not as a platform for innovation. It also only considers users as consumers, not as prospective innovators or entrepreneurs. The Open Internet therefore affects wider economic policy issues outside the framework – i.e. how we promote economic growth.

Beyond economic policy, if a model makes it more difficult for small economic actors to find and develop an audience online, it is likely that it will also make it more difficult for users to use the Internet to spread their views. **There is therefore a fundamental link between the openness of the Internet and both freedom of expression and economic freedoms.**

Key Concerns

The policy issues surrounding the “Open Internet” and net neutrality are numerous and complex. Our answers to the specific questions below seek to do justice to this fact. However, we wish to take the opportunity to briefly state our primary concern in this area, in order to draw attention to our detailed arguments set out below, notably in answer to Question 10. This is that



there are major risks for the Internet, the economy, and society if Internet access providers are to start to charge content providers for access to end users¹.

In summary, such a model:

1. relies on the fallacies of the 2-sided model and “free-riding” by content providers;
2. doesn’t incentivise investment in a higher quality internet, but rather in a cheaper last mile;
3. poses risks to competition in because of bundling and inherent opacity to end users, making it less likely that end users will be incentivized to switch access providers;
4. endangers innovation and investment in content, which would in turn reduce demand for access.

Yahoo! strongly believes that the Commission must balance the promotion of investment in infrastructure with the promotion of investment in content and applications.

Specific Questions

Yahoo! has sought to address each of the questions posed in the Commission’s consultation paper in turn. However, we have also commented on some of the assumptions made in the paper and expanded on concepts which may complement the Commission’s thinking.

Question 1: *Is there currently a problem of net neutrality and the openness of the Internet in Europe? If so, illustrate with concrete examples. Where are the bottlenecks, if any? Is the problem such that it cannot be solved by the existing degree of competition in fixed and mobile access markets?*

Yahoo! believes that the Internet has been relatively open until now but that we are a turning point where this may not necessarily be the case in the future. As described above, there are various threats to the openness of the Internet, not all of which are economic in origin. And of those that are economic in origin, not all are associated with “net neutrality”. Yahoo! therefore emphasises that if the Commission wishes to favour an open Internet, net neutrality policy must be formulated with an awareness that its impact will go well beyond traditional telecoms regulation and indeed beyond economic policy, because of the broader threats that exist. In line with the cross-cutting nature of the Digital Agenda, the Commission will need to reconcile policy objectives that otherwise risk being addressed in contradictory ways.

Yahoo! agrees that competition offers the best prospect of moderating incentives to introduce unfair discriminatory practices which would distort competition. Robust and vigilant oversight of markets by regulators will therefore be a critical success factor for Europe.

¹ This is an entirely realistic prospect: see <http://www.pcpro.co.uk/news/broadband/361501/talktalk-bt-wed-put-iplayer-in-the-slow-lane>

That said, there are clearly problems developing in the market today. Major European network operators have been actively exploring ways to recoup the significant investments they have made in network infrastructure. Some of the ideas being explored (for example, charging parties other than the user) have the potential to damage the openness of the Internet and greatly reduce the incentives for investment in the content that drives demand for Internet access.

Question 2: *How might problems arise in future? Could these emerge in other parts of the Internet value chain? What would the causes be?*

Exclusionary behaviour is most likely to occur where an access provider has market power and is vertically integrated such that the provider also competes with content and other providers online. However, it is also possible for providers without market power to impact competition and this merits further consideration. For example, a provider that makes it difficult for a consumer to switch to another provider (either through lengthy contract terms and/or bundling, both of which may involve financial penalties) could have the same effect as market power by limiting consumer choice and their ability to exercise it.

The impact on innovation is an important reason for exploring the impact of contractual tie-ins and bundling, alongside transparency. An access provider that can lock in its customers will also be able to levy charges on content and other providers and/or unfairly discriminate against types of traffic or individual services. This situation will tend to favour large existing providers, allowing them to lock themselves in the market but discouraging market entry by new providers. This in turn impacts innovation.

This trend will also tend to concentrate content providers as a way of exerting countervailing market power. It would send an important signal to the market to explicitly link all these issues (transparency, switching – including bundling and tie-ins – and innovation) in the Commission's policy statements.

Traffic management raises a further competition issue insofar as the increasingly common practice of deep packet inspection (DPI), often used as a traffic management tool, can give access providers valuable insights in to how consumers use Internet-based services. Where these services compete with an access provider's own, knowledge acquired via DPI used in traffic management could incentivise and inform anti-competitive behaviour.

Question 3: *Is the regulatory framework capable of dealing with the issues identified, including in relation to monitoring/assessment and subsequent enforcement?*

Yahoo! wishes to point out that ex ante regulatory powers exist that are relevant to this debate. There are several aspects of the existing framework that regulators should address before resorting to competition law. These include information transparency obligations, addressing difficulties associated with ensuring compliance, and the challenges created by bundling.



However, the European Commission concludes in its consultation paper that a key trigger for regulatory intervention would be whether or an access provider (who may have incentives to block or degrade or overcharge consumers for traffic of services that they believe compete with their own) has 'significant market power' in a relevant market. While this is welcome and undoubtedly correct, when applied to the fast-moving, complex world of the Internet / ICT ecosystem, the EU's competition regime is ill-equipped to deal with the problems encountered by many Internet companies in obtaining redress when access to their services and applications is arbitrarily discriminated against.

Because competition cases often take up to 10 years and are very costly, it is simply impossible for many European companies evolving in this market to rely on this to protect their businesses (more than 95% of EU ICT firms are SMEs). Yahoo! urges to Commission and national regulatory authorities to modernise the European approach to regulation in this sector to help deliver timely outcomes for a fast moving market. Such an approach should include making the complaints process more accessible for small businesses, and the development of regulatory processes that deliver the wider political objectives of the framework beyond simply delivering the regulatory requirements.

Yahoo! notes that the EU's regulatory framework for electronic communications, while it provides a set of rules for how to deal with market challenges as they arise, is silent in terms of policy direction in many areas. It is therefore very important for the European Commission's policy statements to be clear, and for the Commission and national regulatory authorities (NRAs) to back them up with energetic use of the tools provided by the regulatory framework.

There is therefore a clear need for a non-discrimination principle in retail broadband access to be effectively mandated and enforced across the EU.

Question 4: *To what extent is traffic management necessary from an operators' point of view? How is it carried out in practice? What technologies are used to carry out such traffic management?*

Many stakeholders argue that all network traffic must be managed; and that this is a simple fact of technology. Yahoo! believes that what matters is the intention behind the management of traffic (including for example the extent to which management policy is neutral to the source of the traffic). One valid reason to manage traffic is to deliver data to the end user in the most efficient way possible. Another might be to avoid congestion in the network (here there must be a presumption that there is actual evidence of congestion). However, when dealing with end users who have expectations of "agnostic" Internet access, traffic management that aims to shape the type of Internet service that end users get, or seeks to influence the services that end users access, effectively begins to change the Internet experience for those end users. On a regional, national, continental, or global scale, this type of dynamic risks creating a radically varying Internet landscape, and could threaten the fundamental unity and openness that make the Internet so valuable.



Question 5: *To what extent will net neutrality concerns be allayed by the provision of transparent information to end users, which distinguishes between managed services on the one hand and services offering access to the public Internet on a 'best efforts' basis, on the other?*

Yahoo! is pleased to note that the European Commission believes that transparency is a necessary condition for effective competition². However, we believe it is clear that while transparency is necessary, it is not sufficient.

More broadly, Yahoo! notes the strong focus on “managed services” in the European Commission’s consultation paper. We understand the desire to allow network operators to innovate in the provision of new services on their own networks, but we are concerned that a strong focus on facilitating the delivery of “managed services” by ISPs could undermine the quality of Internet access that end users receive, and could make it more difficult to assess whether discrimination is taking place.

When discussing transparency requirements, the Commission should be careful to separate between:

1. the transparency that is required to enable end users to distinguish between managed services and an Internet service;
2. the transparency that is required to enable end users to understand what they can expect from their Internet service.

While effective transparency will provide end users with the information they need to make decisions about which access provider to use, it will not provide them with the means of switching to a provider who more closely matches their expectations. Switching costs can remain high, especially where providers bundle services. Many broadband access products are ‘bundled’ with other services such as voice telephony and TV/VoD services. This can offer users benefits and cost savings in the short term, but over time the monetary and time cost of switching can be high because it may involve changing hardware, telephone number and/or email address and paying early contract termination fees (where minimum contract terms apply). Bundling reduces the effectiveness of competition, and reduces choice. Bundling of services is now the norm in many European markets.

Regulators should not rely on transparency without addressing enforcement. In the absence of standard metrics and an agreed arbitration mechanism, allegations of abuse of commitments made under transparency requirements would be impossible to prove.

Question 6: *Should the principles governing traffic management be the same for fixed and mobile networks?*

Yahoo! sees no reason why the regulatory principles governing traffic management should be different for fixed and mobile networks. Separate treatment for mobile services, as proposed by

² We address the requirements for transparency to be useful in our answer to Question 14 below.



some, are an obvious threat to the openness of the Internet in the mobile context, but could also have spillover effects on the fixed line world.

Question 7: *What other forms of prioritisation are taking place? Do content and application providers also try to prioritise their services? If so, how – and how does this prioritization affect other players in the value chain?*

Yahoo! has no particular comments to make on this issue.

Question 8: *In the case of managed services, should the same quality of service conditions and parameters be available to all content/application/online service providers which are in the same situation? May exclusive agreements between network operators and content/application/online service providers create problems for achieving that objective?*

Question 9: *If the objective referred to in Question 8 is retained, are additional measures needed to achieve it? If so, should such measures have a voluntary nature (such as, for example, an industry code of conduct) or a regulatory one?*

This answer addresses both Question 8 and Question 9.

As above, Yahoo! notes the strong focus on “managed services” in the European Commission’s consultation paper. We understand the desire to allow network operators to innovate in the provision of new services on their own networks, but we are concerned that a strong focus facilitating the delivery of such services by ISPs could undermine the quality of Internet access that end users receive. In addition, such a focus could make it more difficult to assess whether discrimination is taking place because it blurs the line between what the consumer understands as access to the Web and a different, Internet-enabled service.

In principle, network operators should be free to provide whatever content they wish over their networks, as long as there is true user demand for such services. What is critical is that users’ expectations with regard to Internet access are met. A user who experiences a service such as video on demand through ADSL today may not even know that the service is provided using the Internet, because the same user is likely to be accustomed to experiencing Internet access through a different device..

However, as devices converge, end users’ expectations with regard to Internet access are likely to make it much harder to differentiate between what could be termed a separate managed service today and what might feel a lot like heavily prioritised traffic tomorrow. The fundamental challenge is of course that a “managed service” that is delivered over the Internet does in the final analysis share the same infrastructure as “best efforts” Internet access.

In this context, the conclusion of exclusive agreements risks creating a user experience of the Internet that is discriminatory and entrenches established players vis-à-vis new entrants and innovators. Regulators should be vigilant in assessing the compatibility of such practices with



competition law and the policy objective laid out in the Framework Directive and subsequent policy statements.

Question 10: *Are the commercial arrangements that currently govern the provision of access to the Internet adequate, in order to ensure that the Internet remains open and that infrastructure investment is maintained? If not, how should they change?*

Our answer to this question encapsulates our most significant concern with regard to net neutrality in Europe, which is the avowed intent of many access providers to charge content providers for access to end users.

The fallacy of the 2-sided model

Yahoo! notes that the Commission's consultation document appears to express indecision about whether the Internet is a two-side or a multi-sided market. We believe it is very clear that the Internet is *not* a two-sided market. There are in fact multiple relationships between content providers, the consumer and network providers (most often more than one, including access, backhaul and backbone) which together make up the end-to-end Internet service which a consumer experiences. The access provider alone does not connect a user to the content. In practice, relatively few access providers own and/or operate both backhaul and core network and can therefore offer end-to-end QoS guarantees for consumers and content providers. Most providers simply connect the user to the Internet and, at best, can minimise the impact of congestion in the network as a whole by managing traffic on the last mile (and perhaps backhaul). This does not necessarily create economic incentives for network investment in order to relieve congestion. Where some access providers may be able to negotiate commercial arrangements directly with content providers that are able to bring the content to their networks, a two-sided market may exist. But most European access providers will continue to rely on third party networks and best efforts routing in a multi-sided market.

The "free-riding" fallacy

This is an important point because many network access providers rely on the existence of a two-sided market to claim that content providers who provide bandwidth-intensive content are "free-riding" in some way on the infrastructure that they (the access providers) have invested in. This logic is used to justify attempts to charge content providers for access to end users. Providers of bandwidth-intensive content, it is argued, should be economically incentivised to provide content to end users in as bandwidth-efficient a manner possible. There are three reasons why such logic is fallacious.

1. Firstly, like any content provider, Yahoo! invests heavily in content. Indeed, content is arguably what drives demand for access providers' services. Using the logic of the access providers, content providers could equally argue that the access providers are free-riding on their investment in content, and should pay for the content.
2. Furthermore, content providers are already economically incentivised to send content to end users as efficiently as possible, because they also pay for (invest in) access to the Internet.

3. Lastly, many large content providers actually invest in very substantial network and data infrastructure of their own to facilitate and cover the cost of delivering their content to end users.

Incentivising investment in infrastructure

That said, if there is a problem with the allocation of backbone costs, then this should be addressed directly, rather than adding separate charges based on last mile provision. Charging content and application providers for access to end users is unlikely to incentivise access providers to invest in infrastructure. Instead it rewards having a lot of customers. What this implies is that charging content providers will tend to favour large existing content providers, thereby discouraging entry. This is because the ability to be necessary (the way football was for British satellite TV) is a function of being big. By contrast, new start-ups are much more vulnerable to commercial pressures. Thus charging content providers will tend to lock in existing providers, discouraging entry of new services and innovation. Moreover, this dynamic will tend to incentivise content providers to concentrate as a way of exerting countervailing market power.

Termination charges on the Internet?

There are other reasons why charging content providers is economically undesirable. Such a charge would essentially be a data traffic termination charge unrelated to improvements in service and of reducing consumer choice. From a regulatory point of view, this is in many respects the same type of problem as that of mobile termination rates – a problem for which the EU has had to legislate a regulatory remedy. It would be helpful if the Commission could clarify that this would be concurrent with its own analysis.

Incentivising investment in content

Lastly, charging content providers could also have serious consequences for the incentives for them to invest and innovate. This ought also to be a primary policy consideration for the European Union, especially in light of the importance of the promotion of creativity and European culture on the Internet. **Yahoo! strongly believes that the Commission must balance the promotion of investment in infrastructure with the promotion of investment in content and applications.**

Question 11: *What instances could trigger intervention by national regulatory authorities in setting minimum quality of service requirements on an undertaking or undertakings providing public communications services?*

Question 12: *How should quality of service requirements be determined, and how could they be monitored?*

Question 13: *In the case where NRAs find it necessary to intervene to impose minimum quality of service requirements, what form should they take, and to what extent should there be co-operation between NRAs to arrive at a common approach?*

This answer addresses Questions 11, 12, and 13.

As noted above, we believe that competition offers the best prospect of moderating incentives to introduce unfair discriminatory practices which would distort competition. This requires concerted action on the part of the Commission and NRAs to create this environment, including action on information transparency and the factors that affect switching behaviour (among them, contract tie-ins and bundling). Where this fails, QoS guarantees become the regulatory backstop under the framework. However, past experience of QoS standards (i.e. fixed and mobile voice) shows that quality can be very hard to measure and a regulatory process with no market incentives for providers to innovate and compete rarely results in good outcomes for consumers. Competition would be a far better assurance of quality and creating a competitive market should therefore be the primary focus of the Commission's regulatory activity. It would send an important signal to the market if the Commission were to make this clear.

It is worth noting that the imposition of end-to-end QoS requirements for access providers is problematic because they do not have control over all the relevant parts of the Internet infrastructure. Were an access provider to be obliged to provide an end user with QoS guarantees, incentives would be created for the access provider to negotiate QoS terms with a range of other players in the ecosystem. This could include backhaul providers, and is very likely to include a range of backbone providers, not to mention other intermediaries and content providers themselves. A proliferation of QoS agreements between network operators could create risks for the openness of the Internet by increasing incentives to prioritise and/or "manage" traffic in discriminatory ways for commercial purposes.

Question 14: *What should transparency for consumers consist of? Should the standards currently applied be further improved?*

It is important to note that, unlike switching and consumer contracts, there is a business audience as well as a consumer audience for information transparency. Businesses rely on open broadband access so that potential customers can find and use their online service and they will make critical investment decisions based on their addressable audience. For example, a provider of a P2P-based business will not advertise to the customers of a broadband provider who does not allow P2P file sharing via their network. Information provided by access providers must therefore be relevant to a business audience and delivered in a way that is also easy-to-find and accessible to them.

There is obvious scope for access providers to work collectively to agree common commitments about what information should be disclosed, in what level of detail and how. The starting point for these commitments is the presumption in the EU Framework in favour of preserving the open and neutral character of the Internet in order to promote the right of consumers to access and distribute information. Any traffic management practice relevant to this expectation should be disclosed in meaningful detail. This would include:

- What traffic management techniques are used by an access provider;
- Purpose(s) for which traffic management is used (including to prevent access to criminal content, enhance network security, manage congestion or optimise performance);

- Which networks they apply to (i.e. a proprietary service and/or the user's Internet connection; fixed or mobile), how they are different and why ;
- Whether traffic management applies differently depending on geography (e.g. on mobile networks or areas with different fixed network infrastructure); and
- Anticipated effect of traffic management on for the user's experience of the Internet (e.g. some service types are not available within the user's package or bandwidth may be limited at certain times of the day).

There can be no reason why a consumer is denied access to any lawful website and we would expect any disclosures on traffic management to put this beyond doubt. This will be important for online businesses. It is important that this framework is more than a statement of intent and is specific about what it will deliver, when, where and how. Information should include positive statements/'promises' about what is available via the broadband connection, particularly about what is guaranteed as well as what may be restricted or 'managed'. Information should also include an idea of the real world experience a user could expect (e.g. whether their package is suitable for intensive gaming or whether they may be better buying a different package).

The challenge for providers is to find a way to make the invisible visible to their customers and doing so outside complex terms and conditions documents. In this respect, providers are uniquely placed to develop innovative and user-friendly ways of doing this. In considering where the European Commission's role stops and providers' responsibilities start, it may be appropriate for the Commission to describe desired outcomes and challenge providers to develop a framework which delivers them. The framework should be based on primary research of users' expectations and could involve a combination a tiered approach, one stop shop and real time/contextual information, as well as information being given at different points in time (e.g. at the point of sale and point of use).

The consultation document points out that some users will be more familiar than others with the concept of traffic management and what it means in practice. Our experience concurs with this and shows that technically-savvy, high-end users have an appetite for very detailed information (such as contention ratios and latency/packet loss figures) and will demand it of their providers. Our experience also shows that transparency and good practice can, over time, become a competitive differentiator and can incentivise providers to innovate how they present information to users. The transparency framework should therefore be designed in a way that encourages innovation and competition between providers over time.

It is important that providers' commitment to transparency also extends to a longer term commitment to invest in educating consumers about the practice of traffic management *per se* as well as their particular policy. This would include familiarising consumers with the terminology and the technology as well as why it is necessary in certain circumstances. There is plenty of good practice to draw on. In the privacy arena, for example, it is now common for privacy statements to be provided outside terms and conditions and in a 'layered' way which provides basic information for all users as well as more detailed supplementary information for those users with a higher level of understanding. There are also examples of collective public education activity such as by the direct marketing industry or the recycling movement.



It would also make sense to explore how information on traffic management could be provided with other information that will inform consumers' switching decisions as part of the same exercise.

Question 15: *Besides the traffic management issues discussed above, are there any other concerns affecting freedom of expression, media pluralism and cultural diversity on the Internet? If so, what further measures would be needed to safeguard those values?*

As expressed above, Yahoo! believes that there are economic risks in ignoring the importance of promoting investment in online content. But there are also significant cultural risks associated with such neglect. European creators and content providers would suffer disproportionately from an unfavourable regulatory environment on the Internet. This is primarily due to the advantages of scale possessed by large, and primarily non-European, players.

And lastly, Yahoo! recalls the critical context of the value of the Internet as described in our introductory remarks above. An open Internet is an Internet that has value to society on a global scale. This includes enormous opportunities for the support of freedom of expression - opportunities that we spurn at our peril.

Contact

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