Internet Access is a Human Right

Tim BERNERS-LEE ?? and Harry HALPIN ??

^a W3C/MIT and Web Foundation, Boston, Massachusetts, United States of America ^b Researcher at Institute de la recherche et la innovation (IRI), Paris, France.

Abstract. As the power of the Internet and Web increases, the desire of governments and corporations to try to control, limit, or take over the Internet becomes stronger. Recently this matter has come to a head, and people have started to ask whether the ability to participate in this empowered, connected society should be considered a right worthy of protection. We consider access to the Internet as a human right, and conclude that urgent action is needed in promotion and defense of the Internet and the Web.

Keywords. Internet Access, Human Rights, Policy

Introduction

As the power of the Internet and Web increases, the desire of governments and corporations to try to control, limit, or take over the Internet becomes stronger. Recently this matter has come to a head, and people have started to ask whether the ability to participate in this empowered, connected society should be considered a right worthy of protection. We consider access to the Internet as a human right, and conclude that urgent action is needed in promotion and defense of the Internet and the Web.

1. The Gap

The last twenty years have been incredibly exciting. As the power of the Web has grown, all kinds of companies and organizations have built incredibly innovative and amazingly valuable systems and services on top of the Open Web Platform. Mozilla, Netscape, and Internet Explorer have each in turn historically dominated the browser market, yet through the process of standardization developed via the World Wide Web Consortium (W3C), today the Web browser market is wide open, promoting the rapid development that characterizes the Open Web Platform as exemplified by the Mobile Web and HTML5. Search engines, Wikipedia, and social networking sites are just a few of the services built on this technology, which increasing numbers of people use constantly and almost instinctively as a growing part of their lives. However, of course the problem is that with every new feature, with every new height to which the latest technology platform rises, our engineering is widening the gap between those who have access to it and those who do not.

http://www.w3.org/

To understand how wide the gap is already, try asking a teenager to go without connectivity for a day or imagine how a business such as a travel agency could compete with other travel agents if it has no web site. Things happen in completely different ways for those of us who are connected to the Internet. Underneath, at the level of the Internet, we are just communicating faster - hugely faster. Yet above, at the social level, we are interacting, living, and working in completely new ways. We remember less 'in our heads' as we can look things up so quickly. We check-out any person, place, or product online before we meet them, go there, or buy it. We learn about whatever is happening across the globe almost immediately. We learn constantly, and even take courses online without enrolling in a university. When we go to the doctor it is usually for a second opinion to compare with what we have gleaned about our illness from the Internet. When we see an announcement we don't like or don't understand, we comment and start a conversation about it online. In the course of these myriad online conversations, we can state our views and we can even get things changed. For example, if we notice that a feature on a map isn't right, we can fix the map ourselves right then, and share the results with everyone. People who are not connected or whose connection is controlled and censored – or even spied on! – are then disadvantaged in a very significant way.

2. Already covered?

The debate over whether or not access to the Internet should be a right has been taken up in earnest by technologists. Vint Cerf, in a New York Times op-ed piece on January 4th 2012, entitled *Internet Access is Not a Human Right*, makes many good points against the Internet being considered a human right [?]. Cerf points out that the Internet is a specific technology that may come and be replaced. Thus, when we talk about fundamental rights, we should use language that is independent of any particular technology so that our discourse on rights may stand the test of time.

This is of course true in the sense that the fundamental protocols that run the Internet and Web, ranging from TCP/IP to HTTP, will without a doubt be subject to change. However, Vint has often pointed out that the 'Internet' can describe not only the technology, but everything layered on it: email, the Web, streaming media, and so on – and then even everything built on those, such as services around social networking, online learning, health and medicine, and the world of electronic commerce. As this wonderful and growing mass of enabling capabilities is all currently associated now with the Internet, Vint must concede that people are likely to use the word 'Internet' to describe them. So it seems that we should not write these rights formally in terms of Internet technology.

Independent of any particular technology, is the ability to use the World Wide Web basically the exercising of a right that already is well acknowledged? Some have suggested that the *United Nations Declaration on Human Rights* is all we need; we just have to apply the UN Declaration to current technology [?]. Article 19 in particular is often quoted: "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" [?]. One must admit that this sounds good, as the UN has endorsed such a statement and many countries have already signed on to it. What more needs to be done? This depends on whether the Internet is in fact just another way to express oneself and be informed. Do we need to rethink rights for the Internet age?

Does Article 19 really give us foundational means to preserve and even strengthen the power of being connected? Not really. The Internet, the Web, and the Open Web Platform of web applications are all platforms built on one another, and innovators constantly built new capabilities on top of them. Let us just take one such capability: Web search. Those who have access to Web search can more or less instantly take the 'temperature' of the whole connected world on a given topic: you can find out what people have been saying, and what has been said about them. Web search is an incredibly powerful tool in an election – so if one political group could take the ability to search away from another political group or supplant the opponents' searches with false results, then the first group has great power over its enemy – even if the victimized group could use the web in other ways. So when we say that people deserve to be connected, that means that people deserve to be able to use all the latest forms of Internet-enabled inquiry, collaboration, and interaction – and they have the right to build their own innovations when they imagine something new. That's a far cry from just receiving and imparting information as prescribed by Article 19. The real argument is not whether access via certain protocols to a technical infrastructure should be accorded the status of a human right, but whether the social capabilities that the Internet engenders in general should be considered a new kind of right.

Ultimately, why is it useful to talk about rights in the first place? When we talk about something - such as a freedom, health, or education - as a right, we put it onto the global agenda. We call something a 'right' because we believe it should be a basic part of life, independent of which country you are in and what system of government you live under. We actively apply these rights in two ways: firstly to unite people in working to bring rights (such as education) to those who do not have them, and secondly to incite strong protest when a right (such as freedom) is removed without just cause. We choose what qualifies as a 'right' because we think, and together agree, that the world would be better if these rights existed.

The real argument is over how we as a society determine what should qualify as a right. Contrary to some, rights certainly are not natural. In the Declaration of Independence of the United States, Thomas Jefferson had to declare certain rights to be selfevident precisely because the King of Britain did not believe these rights were selfevident. Before the Enlightenment, in general it was considered self-evident that kings held the unquestionable right to do whatever they pleased to those born inside their kingdoms. Closer to home, before the Civil Rights movement some people thought that African-Americans did not the same rights as the rest of the citizens of the United States. Rights are determined through debate and struggle as opposed to being stated perfectly by an authority and then held to be unchanging for eternity. As history has shown, as the times change, new ideas of what should be considered rights will develop in the course of events. The very contours of what can be imagined as rights are constituted by what capabilities – including technological capabilities – are available to ordinary people as well as protections against the new kinds of abuses that people can suffer, including those made possible by new technical capabilities. Internet access should be a right insofar as the ubiquity of the Internet provides both new expectations for and new kinds of attacks on human rights.

Even more urgently, the Internet is increasingly necessary to allow basic rights to be fulfilled. Water and health are immediately essential to life, and it could be argued that the right to water and health are just categorically different than access to the Internet

and Web. We would agree: access to information has crucial qualities that set it apart from something like water. Unlike water, information does not often disappear when an individual uses it. Once you deliver water to someone, he or she can drink it or pass it on; its supply is finite. The tragedy of the commons does not hold for information: once a region has Internet connectivity, and when someone acquires information, that information can be spread almost instantly for the benefit of all. This does not mean that somehow access to the new information and capabilities provided by the Internet are fundamentally disqualified from being rights; today we even find increasingly that the Internet provides information that can and does save lives by helping people organize to successfully implement for themselves crucial services ranging from acquiring water to curing disease – not to mention supporting open government, corporate responsibility, and democracy.

3. Applying Rights Now

Although debate around Internet access could remain purely academic, the responsible question to ask is whether we need to apply the right to Internet access now. First, let us determine whether we need to unite to help ensure that the Internet is accessible for all. It is a shock for some to hear that only 20-25% of people in the world actually use the Internet, even though maybe 80% of people across the globe have access to a signal that could potentially allow them to access the Internet! There are a potentially huge number of reasons that could explain why many people cannot access the Internet. Perhaps they do not have a phone, or if they do, their phone does not have a web browser. Even if they have a web-enabled phone, perhaps there is no content on the Web in their native language or they need a visual or audio interface rather than the current text-oriented interface most common in the online world. Even if a person has access, there is nothing more important than a role model to demonstrate how to take advantage of the Internet. So the size gap between those who have Internet access and those who do not is not only a matter of a huge difference in capability, but a matter of the surprisingly huge number of people who do not have access. The newly founded World Wide Web Foundation is one of the few organizations trying to determine what is the best thing to do now in order to bring as many people across the gap sooner rather than later.²

Most importantly, across the globe people need to realize they can contribute to the Internet beyond just reading web-pages. While Vint points out the special responsibility of engineers in creating technology that preserves rights, the Web needs far more than engineers. After all, it is ordinary people without computer-science degrees who are posting the vast majority of content online. Everyone, from end-users to CTOs, can participate in the creation of the rules and regulations that define the Web and the Internet through standards bodies like the World Wide Web Consortium (W3C) and Internet Engineering Task Force (IETF) – bodies that strive to be transparent, accountable, and responsible. By involving more users into the standards-making process, the Web and Internet will naturally mature to match their expectations of their rights. The energy spent arguing over whether Internet access is an intrinsic right is far better spent collectively

²http://www.webfoundation.org/

³http://www.w3.org/ and http://www.ietf.org/

determining what rights people should have in relation to the Internet, and then building the technical and legal framework that serves these rights.

Are there also times when we need to protest because these rights are being taken away? Certainly there are, and so it is timely to do so now. Many people were shocked when Mubarak's regime disconnected the country from the rest of the Net. Most people didn't realize it was so easy. Soon afterwards, just as the Net was being hailed as a source of truth, justice and peaceful revolution, the Syrian government is said to have attacked the Internet access of its own citizens, using forged certificates of US websites to identify, prosecute and in some cases even kill citizen-activists who were using the Net to associate and to exchange the truth about what was happening in their country [?].

Before those in the 'developed' countries think they can rest easy in the assumption that nominally democratic countries will preserve their rights, note that the SOPA and PIPA acts in the USA [?,?]; the DEA in the UK [?]; the Hadopi in France [?]; and so on show that governments are, as quietly as possible, giving themselves the legal right to cut off the Internet access of people, households and companies; to spy on Internet traffic; and to have web sites blocked on suspicion of criminal activity without a trial. In the US and France, it is the companies themselves that want to play judge and jury, without any oversight or democratic governance. We have a responsibility to protest when rights are surreptitiously removed.

And we are protesting. In the US, the unprecedented online protest sparked by activists and the Internet blackout against SOPA and PIPA occurred not only inside the USA [?], but because the effects of filtering DNS (Domain Name System) are international, these laws provoked truly international outrage [?]. Yet at the same time, many governments quietly signed the ACTA agreement which commits signatories to passing similar laws without public discussion [?]. Meanwhile across the Middle East, people are still protesting and still being killed.

Both the protests and their repression are deeply tied not only to matters of law, but to the governance and details of the technical architecture of the Web and Internet. The architecture of the Web leads not only to new capabilities, but to a whole new set of abuses against communication that were not possible with older technologies such as telephones, and even less imagined by Thomas Jefferson in the era of corresponding via letters. When these examples of Internet access violations are taken seriously, it becomes apparent that 'Internet Access is a Human Right' is far too simple of a slogan: the Web and Internet require a whole new legal framework that explicitly takes into account the new technological capabilities and expectations provided by them.

Violations of net neutrality contravene the right to Internet access. At the birth of the Internet, there was a largely informal guarantee of net neutrality, so that the data sent across the Internet would not be discriminated against based on their origin or receiver. In the United States and Europe, companies are currently pushing to end net neutrality over wireless Internet connections and provide a 'two-tier' model where pay-as-you-go services become faster than free services. It's hard to determine whether this violates the right to freedom of expression, but it definitely violates a popular expectation for the right to access content on the Internet without discrimination. As these kinds of abuses are new, they are not covered by the right to freedom of opinion and expression by itself. After all, your Internet Service Provider could violate net neutrality by slowing down your access to information outside of its 'approved' web sites, but could argue that this would not currently count as violating your right to freedom of expression.

Central to the Web is the right to post new data and link to any information on the Web. Not only do the authors of SOPA/PIPA and ACTA want search engines to filter out copyrighted material, SOPA/PIPA (and likely ACTA) will attack the fundamental neutrality of the domain name system (a domain being a Web address like www.webfoundation.org), by demanding that Internet Service Providers 'block' overseas domains that may host copyrighted material [?]. In many repressive countries like Tunisia, blocking of the domain name system was deployed to censor content on political rather than copyright grounds. While there are real problems involving copyright brought about by the Internet, violating the integrity of the Web for any reason causes more harm than good.

Another disturbing trend is the increased and increasing numbers of violations of privacy on the Web. The current business practice tracking users undergirds much of the business of the Web, and many users would happily exchange personal data in return for a more personalized experience of the Web, including targeted advertising that could offer them products and services that they would otherwise be unaware of. Yet right now users usually have no idea whether they are being tracked, and by whom – with their personal data often being sold behind their backs without their knowledge. Imagine what could happen if your insurance company determines that you have been browsing through cancer treatments? Or your bank finds out you've been searching about mortgage defaults? Far worse, a massive surveillance industry exists that routinely sells technology, like deep-packet inspection, to repressive regimes, allowing them to create massive electronic dossiers on the most intimate personal affairs of dissidents in order to intimidate and even imprison them. One should have the right to free and private communication over the Web without the fear of surveillance.

In the end, when a country stands up in the glare of international scrutiny or when a company stands in court arguing its case in front of a jury, if we don't have a firm notion of exactly what rights we hold in the Internet era, then ordinary people will have nothing to fall back on. If we do start to talk about access to the capabilities of the Internet as enabling new kinds of rights, then we can imagine that various governments – and hopefully even the OECD and the UN – will affirm them as rights. Once access to the Internet becomes the foundation for a new kind of right, then national governments can hold one another accountable, individuals rights can be affirmed over those of corporations, and we will live in a world in which people can communicate both with whomever they want and whenever they want without fear of being spied on or censored. Then people can innovate freely to create new technologies that have not yet been imagined and participate in this connected world in all the new-fangled ways that we hope will – bit by bit – engender peace.

Acknowledgements

We would like to thank the staff of the Web Foundation and the World Wide Consortium Team for discussing these issues, and Jacques Bus and George Metakides for their support. We would also like to thanks David Dulles-Smith for proof-reading the article. Note that the views of the author(s) do not reflect the views of Web Foundation or the World Wide Web Consortium, but are their views as individuals.

References

- [1] Anti-Counterfeiting Trade Agreement (ACTA) Draft Text. April 15th, 2011. http://www.international.gc.ca/trade-agreements-accords-commerciaux/fo/acta-acrc.aspx?lang=eng&view=d.
- [2] Cerf, Vint. Internet Access is Not a Human Right. New York Times. January 4th 2012. http://www.nytimes.com/2012/01/05/opinion/internet-access-is-not-a-human-right.html.
- [3] Crocker S., Dagon D., Kaminsky D., McPherson, D. and Vixie P. Security and Other Technical Concerns Raised by the DNS Filtering Requirements in the PROTECT IP Bill. May 2011. http://www.circleid.com/pdf/PROTECT-IP-Technical-Whitepaper-Final.pdf.
- [4] Digital Economy Act (DEA). April 8th 2010. http://www.legislation.gov.uk/ukpga/2010/24/section/1?view=plain.
- [5] Eckersley, Peter. A Syrian Man-In-The-Middle Attack against Facebook. May 5th 2011. https://www.eff.org/deeplinks/2011/05/syrian-man-middle-against-facebook.
- [6] Haute AutoritÃl' pour la diffusion des ÅŞuvres et la protection des droits sur internet (HADOPI). May 12th 2009. http://www.senat.fr/dossierleg/pjl07-405.html.
- Panicked [7] Mick, Jason. Congress Critters Scurry SOPA/PIPA Massive After Daily Tech. 18th 2012. Ship Protest. January http://www.dailytech.com/Panicked+Congress+Critters+Scurry+Off+SOPAPIPA+Ship+After+Massive+Protest/article 23817.htm.
- [8] Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property Act (PIPA). Senate Bill 968. May 12th 2011 http://www.govtrack.us/congress/bill.xpd?bill=s112-968
- [9] Stop Online Piracy Act (SOPA). H.R. 3261. October 26th 2011. http://judiciary.house.gov/hearings/pdf/112%20HR%203261.pdf
- [10] Turco, Bucky. Illustrating the Opposition to SOPA/PIPA. Animal New York. January 20, 2012. http://animalnewyork.com/2012/01/illustrating-the-opposition-to-sopapipa/
- [11] United Nations Declaration on Human Rights. December 10th 1948. http://www.un.org/en/documents/udhr/.