

INTERNET BALKANIZATION: WHY ARE WE RAISING BORDERS ONLINE?

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ABSTRACT

Less than three decades after the Berlin Wall collapsed and ended an era of division between the East and the West, the world seems on the brink of making the same mistakes all over again, only this time in cyberspace. Walls and borders not only promote segregation, but have a negative impact on economy, creativity and technology, slowing down progress on every level.

Nowadays, walls are not just being raised in the real world, but on the Internet as well. Countries want to isolate themselves and shut down the information they are not comfortable with, or the companies they don't want to do business with.

The 'Great Firewall of China', which blocks access to websites considered dangerous by the Chinese government, is not an isolated phenomenon – it was the domino which set a trend in motion. In the last decades, more and more countries and organizations have taken to following this Internet censorship and digital mass-surveillance trend.

Many times, the people who are affected are journalists or activists who are just trying to do their job. As surveillance technologies are rapidly becoming more sophisticated and the Internet is becoming more fragmented, we are still trying to grasp the real-life consequences of digital balkanization – a double-edged sword which is insufficiently debated.

Just as doctors on the battlefield have sworn to protect soldiers and civilians no matter which side of the border they are, security researchers do the same in cyberspace – being neutral in the face of threats against security and privacy.

Freedom of expression and unrestricted access to the Internet should be non-negotiable. They are basic human rights which we all should fight for. It's time to ponder seriously the implications of mass-surveillance, censorship and Internet balkanization. We have to decide now what kind of Internet we want our kids to use – a free Internet, or one in which everything you say and do is monitored?

A WORLD WITHOUT BORDERS

Migration and cultural diversity are at the core of human civilization [1]. Throughout history, innovation has always happened in places where human collaboration reached a peak. The ancient Silk Road trading route crossed borders connecting three continents, opening long-distance political and economic relationships that shaped the world we live in today.

Civilizations scattered around this path benefited not only from the exchange of goods and merchandise. What played a

significant role in the development of many nations was not the silk, but the exchange of syncretic philosophies, culture, various technologies, and even religious ideas [2].

By contrast, walls and borders promote segregation, and have a negative impact on economy, creativity and technology, slowing down progress on every level. While we often praise global collaboration and we find value in sharing information with people from all across the world, we haven't reached that maturity in our society that allows the tearing down of both physical and fictional walls. Physical borders still exist today and are often taken for granted – passport controls and security checks have become a blind routine for business and leisure travellers. Yet, we don't always have to agree with borders, and from time to time we have the opportunity to do something about it and contribute to making the world more connected.

It was in 1989, the year that the Berlin Wall collapsed and ended an era of division between the East and the West, that Tim Berners-Lee created the world wide web as a way to surpass borders and share knowledge, just like the ancient Silk Road. 'I hope we will use the Net to cross barriers and connect cultures,' he said.

Back then, the thought of malicious actors operating in cyberspace was very far away. The Internet was built on freedom and trust; it was not meant to be secure. Privacy and security have only been added later, as extra layers on top of an already shaky foundation.

But this space of freedom and trust didn't remain for long. Quite quickly, both nation states and private companies realized they wanted to control the flow of information their clients or citizens could have access to. Countries, for instance, wanted to isolate themselves and shut down the information they were not comfortable with or the companies they didn't want to do business with. Businesses, on the other hand, were more interested in profits, failing to think about the implications of their actions on individual users or on society.

It became natural for some nation states and companies to build borders on the Internet or to agree with them. Soon, companies that build surveillance technologies began to thrive [3].

China was the first nation to restrict online activity. The Internet arrived here in 1994, and it has been free for only three years. The Communist Party feared that the opposition would use it to gain power and spread information it wasn't comfortable with. Therefore, it censored the net and imprisoned the members of the democracy movement. In 1997, the Ministry of Public Security launched a project known as the 'Great Firewall of China', which still blocks access to websites considered dangerous by the local government.

Soon, more and more countries and organizations followed in China's footsteps, and started to use Internet censorship and mass digital surveillance. Among those affected are those able to make a change: journalists and activists who try to do their job and keep a critical eye on governments.

BALKANIZATION OF THE INTERNET

The Internet was meant to unite us. However, physical borders are quite active in the online space. The cyberspace is becoming

more fragmented, a trend researchers call balkanization. The term is a geopolitical one defining the tendency of an area to divide into smaller parts, which are uncooperative or even hostile to each other [4].

Part of the division of the Internet has ‘natural’ causes: differences in language and culture have fostered an English-speaking Internet, a Chinese-speaking Internet and a Russian-speaking Internet, with different search engines and different social networks such as *Weibo*, *VK* and *Facebook*.

While citizens prefer to use the social network that is most active in their community, some will always find ways to create links between separate graphs on the Internet, just like water filling two communicating vessels. John Gilmore, one of the founders of the Electronic Frontier Foundation, believes that the Internet ‘interprets censorship as damage and routes around it’. We should empower these routes, and not stand in their way.

There are organizations that want to keep the Internet free, as it was designed. They want to protect user data, but their work is not at all smooth. Often, they are being targeted with legal requests coming from nation-states, and often, they have no real choice when faced with high-level requests for personal data or digital censorship. A company can either comply with said requests, or risk having to relocate their business elsewhere. We should talk more about it and find solutions.

THE DANGER OF SELF-CENSORSHIP

‘The amount of control you have over somebody if you can monitor Internet activity is amazing.’

Tim Berners-Lee

While surveillance technologies are rapidly becoming more sophisticated and Internet censorship is on the rise, we are still trying to grasp the real-life consequences of pervasive digital surveillance – a double-edged sword that is insufficiently debated.

Whether it is overtly applied or even self-inflicted, censorship has a negative impact on economy, creativity and technology, slowing down progress on every level. Empirical evidence supports the long-standing argument that the mere existence of surveillance shapes our online behaviour and leads to self-censorship [5].

Online surveillance incentivizes Internet users to refrain from looking up certain terms or topics. Some only decide to publish their ideas or opinions under fake identities, or start using the Internet anonymously, fearing that their unpopular actions could have consequences.

ECONOMICS OF DIGITAL SEGREGATION

Press freedom is arguably the most important pillar of modern societies. Under increased mass surveillance, sources become harder to find and are more reluctant to share their stories with journalists.

Investigative journalists are already upgrading their OPSEC skills to better protect against the prying eyes of malicious actors [6]. But their tools are hardly optimal and require extensive attention. Even a small mistake could ruin the delivery of a story that took months to research.

Most journalists know they have to protect against surveillance and try to find ways to bypass censorship. Some are discouraged to report on critical issues, such as misuse of public funds or corruption. Every decrease in oversight is responsible for a directly proportional increase in corruption [7]. When such acts are not reported, we all pay the price.

What we do online can have a powerful impact on our economy. In 2011, the Internet accounted for 21% of GDP growth over the previous five years among developed countries, a *McKinsey* study showed.

Most of the economic value created by the Internet falls outside of the technology sector, reaching even the more traditional industries. This makes the Internet a catalyst for job creation: so far, it has generated 2.6 jobs for each job lost due to automation [8].

CALL TO ACTION

‘Ideas won’t go to jail. In the long run of history, the censor and the inquisitor have always lost. The only sure weapon against bad ideas is better ideas.’

Alfred Whitney Griswold

Security researchers protect people against security attacks, or privacy or digital rights violation. Just as doctors on the battlefield follow the Hippocratic Oath, trying to cure and care for soldiers and civilians regardless of the side they fight for, they have to be neutral. It’s no coincidence the same terms are being used in computer security – virus, infection, quarantine, epidemic, etc.

It’s time to ponder seriously the human rights implications of Internet balkanization. Do we want a truly free Internet for our kids, where ideas and creativity flow unrestricted, or one in which digital borders are ubiquitous?

Cybercrime is a borderless phenomenon. As defenders, we should aim for a united, diverse world, trying to connect nations and tear down the walls that divide us.

Evolution is a result of multiple choices, and in order to have real choice we need real access to information, as well as the chance to work together, as a global society, and to debate together the issues that might shape the future of humanity.

Freedom of expression and unrestricted access to the Internet are non-negotiable. They are basic human rights [9] which we, as security researchers, should fight for.

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