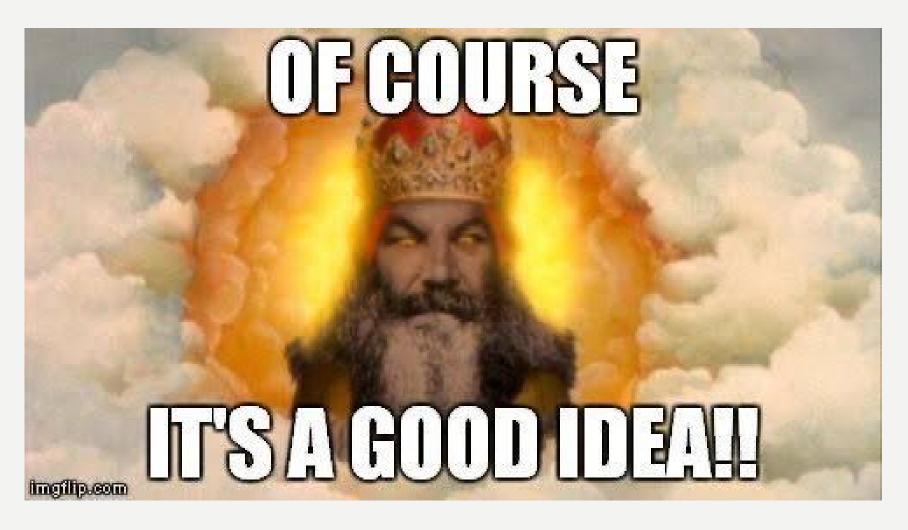
NET NEUTRALITY: LAW AND REGULATION

PROFESSOR CHRIS MARSDEN
NETWORKING CHANNEL - EMPOWER
2 JUNE 2021

MOST OF THE WORLD HAS NET NEUTRALITY LAWS



NET NEUTRALITY LAWS

Nation	Net neutrality policy	Regulatory basis	Major cases
Brazil	Consultations 2015	Marco Civil 2014	Zero rating 2015
Chile	Regulations of 2011	Law of 2010	Zero rating 2014
Norway	Co-regulation 2009	Law of 2013	Zero rating 2014
NI	Regulations of 2013	Law of 2012	Zero rating 2015
Slovenia	Law of 2012	Regulations of 2013	Zero rating 2015
Canada	Telecom Act 1993	Hearing of 2010	Zero rating 2015
United States	Open Internet Orders 2010, 2015	Title II, Telecoms Act 1996	Zero rating 2015
UK 3/06/2021	Code of Practice 2011	Self-regulatory & 2009 Directives	None to 2015

EU REGULATION 2120/2015

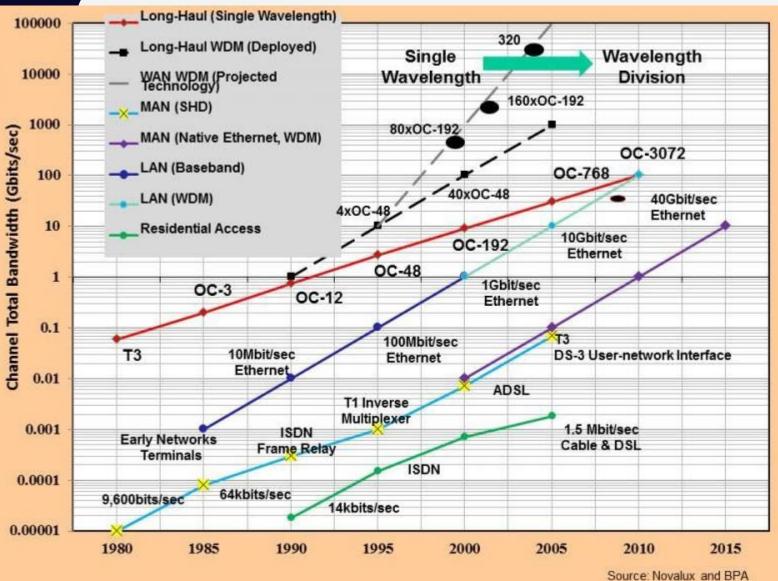
- •27 October 2015
- "laying down measures concerning open internet access and
- amending Directive 2002/22/EC
- •universal service & users' rights

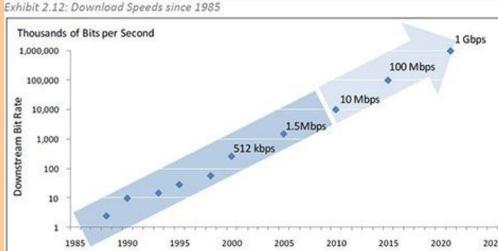
FAR FEWER HAVE ANY

Erwin Schrödinger admitted defeat after his cat smugly proved... that the box both exists and does not exist at the same time, whether observed or not. and later went on to prove that furballs have zero mass



LONGER TERM, THERE'S NO





Source: NBN Co, Alcatel-Lucent (refer Exhibit 9.21)

LONGER TERM, WE'RE ALL DEAD You can stop

You can stop the trolley at any time, but doing so would disrupt the trolley service causing the company to lose profits



W UNIVERSITY of WASHINGTON

IHME COVID-19 projections

24%
ESTIMATED GLOBAL INFECTIONS

Vaccine acceptance

<30%

>70%

PAST WEEK

-5.5% → DAILY CASES 775.5K

-1.9% \(\) DAILY DEATHS 30,300

-2.6% \(\text{\square}\) DAILY HOSPITALIZATIONS 380,880

TOTAL DEATHS* 9.177M

66% WEARING MASKS

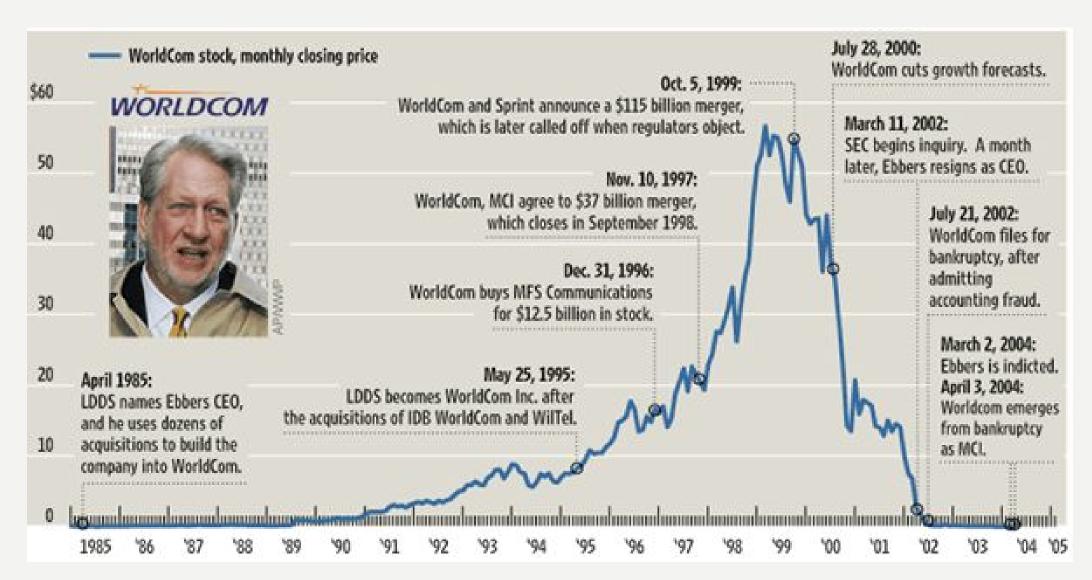
494K
LIVES SAVED WITH
UNIVERSAL MASKS*

646.2K

LIVES SAVED WITH
VACCINE SCALE-UP*

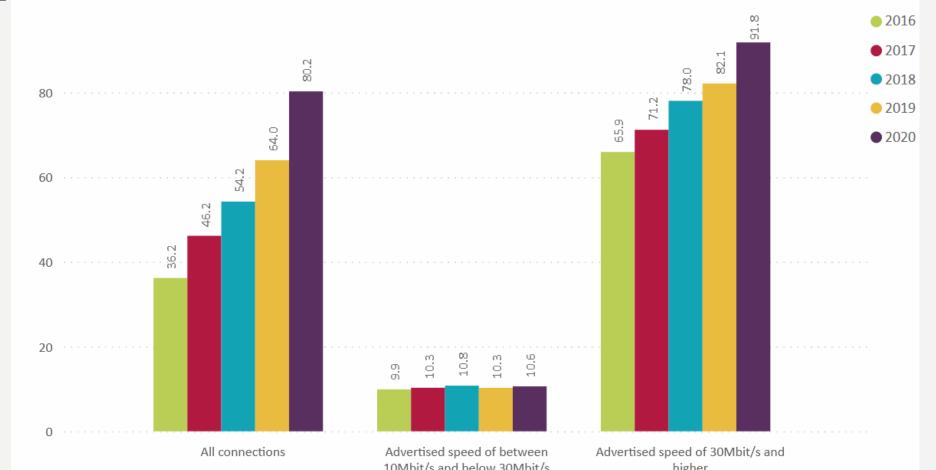
*projected by September 1, 2021

SHORT TERM, SOME FIBBED: INTERNET TRAFFIC DOUBLING EVERY 100 DAYS?



BUT FOR DEVELOPED NATIONS, WE SURVIVED THE

Average actual 24-hour download speed: by advertised speed / by technology; 2016 to 2020 (Mbit/s)



AS PREDICTED

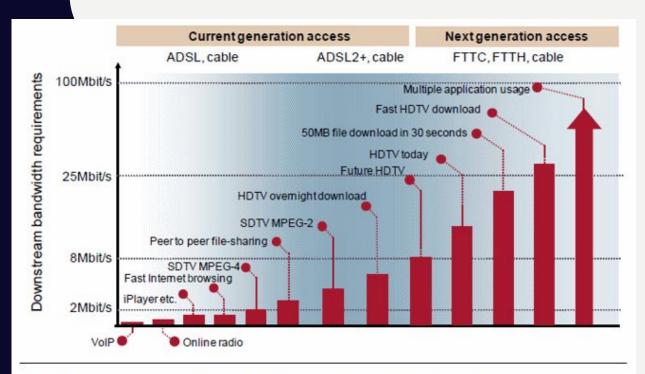


Figure 8.3: Service evolution in relation to bandwidth provided [Source: Ofcom]

Figure 1: Change in broadband providers' average download speeds in March 2020 (higher is better)

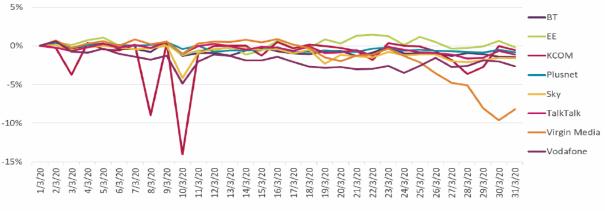


Figure 3: Change in broadband providers' average upload speeds in March 2020 (higher is better)

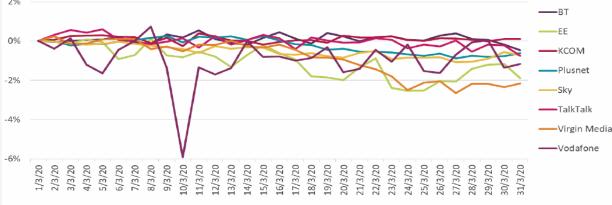
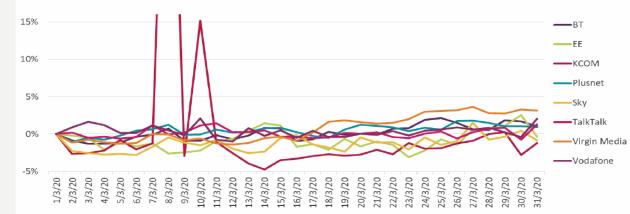


Figure 5: Change in broadband providers' average latency in March 2020 (lower is better)



2020 PANDEMIC ZOOM PAN

EC request to NetFlix & YouTube to stop UHD during work hours



03/06/2021

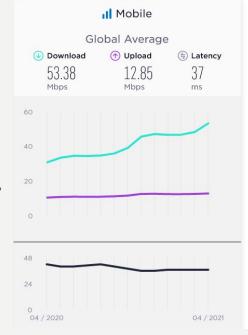
home.

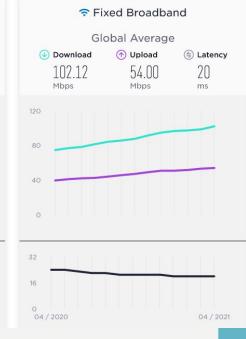
LUCKY YOU NOT LIVING IN A LESS DEVELOPED

•Yernen slowest internet speed average speed of 0 4 the mobile and fixed broadband speeds from around the world on a monthly of the speed average speed of 0 4 the mobile and fixed broadband speeds from around the world on a monthly of the speed average speed of 0 4 the mobile and fixed broadband speeds from around the world on a monthly of the speed average speed of 0 4 the mobile and fixed broadband speeds from around the world on a monthly of the speed average speed of 0 4 the mobile and fixed broadband speeds from around the world on a monthly of the speed average speed of 0 4 the mobile and fixed broadband speeds from around the world on a monthly of the speed average speed of 0 4 the mobile and fixed broadband speeds from around the world on a monthly of the speed average speed of 0 4 the mobile and fixed broadband speeds from around the world on a monthly of the speed average speed of 0 4 the mobile and fixed broadband speeds from around the world on a monthly of the speed average speed of 0 4 the mobile and fixed broadband speeds from around the world on a monthly of the speed average speed of 0 4 the mobile and fixed broadband speeds from a monthly of the speed average speed of 0 4 the mobile and fixed broadband speeds from a monthly of the speed average speed of 0 4 the mobile and fixed broadband speeds from a monthly of the speed average speed of 0 4 the mobile and 1 the speed average speed of 0 4 the mobile and 1 the speed average speed average speed of 0 4 the speed average speed average speed of 0 4 the speed average speed of 0 4 the speed average speed of 0 4 the speed average spee

• 5 fastest download speeds 125x faster than 5 slowest. Global Speeds April 2021

- •37/50 fastest European,
- •10 Asia-Pacific, 2 North America, 1 Africa
 - Zero South America
- •141 countries have average speeds below 10Mbps,
 - minimum required for functional service





PROBLEM: VERTICAL INTEGRATION

Network operator



Content or application provider

Economic incentive to discriminate

FAVOUR VERTICALLY INTERGRATED SERVICES

- 2014 Deutsche Telekom
- (60 % of Germans' broadband connection)
- proposed to impose download limits for customers,
- while exempting traffic generated by
- its own video on demand (VOD) service
- Zero-Rating?

WHAT'S THE FUTURE OF NET NEUTRALITY?

- •From theory, legislation and regulation
- To enforcement

ECJ NET NEUTRALITY JUDGMENT 15 SEPTEMBER 2020

Joined Cases C-807/18 and C-39/19

Telenor Magyarország Zrt. v Nemzeti Média- és Hírközlési Hatóság Elnöke https://curia.europa.eu/jcms/upload/docs/application/pdf/2020-09/cp200106en.pdf

Violated article 3(3): Providers of internet access services shall treat all traffic equally,

- * without discrimination, restriction or interference, and irrespective of the sender and receiver,
- * content accessed or distributed, applications or services used or provided, or terminal equipment used

Must decisions subject to scrutiny be examined in light of Article 3(2) of Regulation 2015/2120 (1st Q)

- or are they governed by paragraph 3 of that provision (2nd Q)?

 If Article 3(3) is applicable, does that impose a general, objective and unconditional prohibition (3rd Q)
- and, if so, does this rule out the need to conduct a circumstantial evaluation
- in order to determine whether the end-users' rights have been infringed (4)?



What did the CJEU decide?

ECJ concludes that relevant zero-rated products in this case:

1) are incompatible with Article 3(2) and (1), where those packages, agreements, and measures

blocking or slowing down traffic <u>limit the exercise of end users' rights</u>.

2) are incompatible with Article 3(3) where those measures blocking or slowing down traffic

IS UK ABOUT TO CHANGE POST-BREXIT?

Ofcom flexibility to adjust its policies, EU adopted net neutrality legislation in 2015.

Ofcom has confirmed it plans to review the UK's net neutrality rules,

potentially opening the door for more flexible regulations for mobile and broadband operators.

mobile and broadband operators argue that it unfair that they have to invest in the network infrastructure

to support increasingly data intensive applications such as online gaming and streaming from which others profit.

Ofcom is understood to be in the early stages but suggested there might be room for wiggle room following Brexit. by 2022

BT CEO called for greater freedom for operators: Coronavirus pandemic demonstrated the benefits in being more flexible.

https://www.techradar.com/uk/news/ofcom-to-review-uks-net-neutrality-framework

REFERENCES

- https://edri.org/net-neutrality-vs-5g-what-to-expect-from-the-upcoming-eu-review/
- O'Donoghue, Robert and Pascoe, Tom, Net Neutrality in the EU: Unresolved Issues Under the New Regulation (2016). Available at: https://ssrn.com/abstract=2741173
- Marsden, C. 'Net Neutrality Law and Regulation' Chapter 2 in Lilian Edwards 'Law, Policy and the Internet' 2018
- Lilian Edwards 'Law, Policy and the Internet' 2018
- Chris Marsden 'Network Neutrality: From policy to law to regulation' (Manchester University Press, 2017) at https://www.manchesteropenhive.com/view/9781526105479/9781526105479.xml
- Telecom Regulatory Authority of India, 'Consultation Paper on Net Neutrality', 4th January 2017
- Telecom Regulatory Authority of India, 'Recommendations On Net Neutrality' 28th November, 2017
- http://dot.gov.in/net-neutrality
- Global COVID19 Traffic Patterns (2020)
 https://docs.google.com/presentation/d/10yKbXMkHCWt21LsGn3BS7rsJqRDS1lCqhkWkbKSpgmc/edit?ts=5e7d28ec#slide=id.q7218cf8921 110 0