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Differential Pricing and Network Neutrality

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Conversation between a prominent Economist and Dave Clark

- ❖ Economist: “The Internet is about routing money. Routing packets is a side-effect.”
- ❖ Economist: “You really screwed up the money-routing protocols”.
- ❖ Dave: “We did not design any money-routing protocols”.
- ❖ Economist: “That’s what I said”.

Rest of the talk

- ❖ Current Notion of Net Neutrality (Open Internet Order 2015)
- ❖ Zero Rating and Differential Pricing
- ❖ Consumer Surplus and Market Distortion
- ❖ Some Real World Data
- ❖ (Re)Defining Net Neutrality

FCC Open Internet Order, 2015

There should be **no blocking, throttling or paid prioritization** (fast lanes) of any content by ISPs*

- ❖ Principle behind order is to preserve quality of service of content, as generated by the content provider.
- ❖ Besides full access to content for everyone, enables all content providers to compete evenly
- ❖ Unfortunately, the order is silent on differential pricing and misses half of the equation/principle of Network Neutrality

*Likely gone today

Zero Rating (and Differential Pricing)

What is Zero Rating?

- ❖ Zero-rating (also called toll-free data or sponsored data) is the practice of mobile network operators (MNO), mobile virtual network operators (MVNO), and Internet Service Providers (ISP) not to charge end customers for data used by specific applications or internet services through their network.

Examples of Zero-rating



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~80 countries currently offer zero-rating type of services (not complete list)

[1] https://en.wikipedia.org/wiki/Facebook_Zero

[2] https://wikimediafoundation.org/wiki/Mobile_partnerships

Zero Rating and Consumer Surplus

- Consumer Surplus: Difference between what a consumer is *willing* to pay and what the the consumer *has* to pay (*Utility-Price*)
- Consumers **choose** commodity that gives them the **most surplus**
- Willingness to pay is **property of content** (quality, QoS etc.). FCC's definition (no blocking, throttling or paid prioritization) keeps willingness intact
- FCC **silent** on what consumer *has* to pay. Zero rating distorts consumer surplus and hence the market

Real World Data

- T-Mobile introduced the Binge On program in November 2015. Partner sites (Netflix, Hulu, HBO etc.) have videos Zero Rated, non-partners (YouTube etc.) not
- All videos are throttled down to 1.5 Mbps
- Two separate studies on impact of Binge On. One by T-Mobile, another by a consulting firm engaged by T-Mobile.
- T-Mobile claims Binge On *benefits everybody*

Results

- Consulting firm study: **Partners** showed an increase in average viewing time of **50%**; the viewership of the most **prominent non-partner**, YouTube, increased by **16%**.
- T-Mobile numbers: **79%** benefit for **partners**, and **33%** benefit for **non-partners**.
- Consumer Surplus isn't just theory. Market distortion is *real*

(Re)Defining Network Neutrality

The Internet should provide a platform that does not provide a competitive advantage to specific content/app/services, either through **pricing¹** or **quality of service²**

- Indian Net Neutrality regulations consistent with this full definition

1. Prohibit Differential Pricing

2. Prohibit blocking, throttling and paid prioritization (Open Internet Order, 2015)

Questions?