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Analysis of sponsored mobile data and its impact on the network neutrality debate

There is a recent trend in the mobile industry to allow content providers (CPs) to subsidize Internet access to their data for end consumers. This way, CPs pay for the traffic of their customers, which is then not included in their data cap. This is called sponsored data. In a related version called zero-rating, the data of some CP is counted for free to attract customers to ISPs (this happened for example with YouTube or Facebook).

We propose to develop a game-theoretic model to analyze this. In this model, we expect to represent the CPs, the Internet Service Providers (ISPs), and the end users as well as their interactions. With competing ISPs, we wish to study the impact of sponsored data and zero rating on all actors. The relation with the network neutrality debate will also be discussed.

Bibliography :

- [1] P. Maillé and B. Tuffin. *Telecommunication Network Economics: From Theory to Applications*. Cambridge University Press, 2014.
- [2] P. Maillé, G. Simon and B. Tuffin. [Toward a Net Neutrality Debate that Conforms to the 2010s](#). **IEEE Communications Magazine**. Vol. 54, Num. 3, Pages 94-99, March 2016.
- [3] Matt Wood. Issue Brief: How to Deal with Data Caps, Sponsored Data and Zero-Rating, Free Press, February 2016
- [4] Wireless Telecommunications Bureau Report: Policy Review of Mobile Broadband Operators' Sponsored Data Offerings for Zero-Rated Content and Services, 2016.
- [5] Carlee Joe-Wong, Sangtae Hay, Mung Chiang. Sponsoring Mobile Data: An Economic Analysis of the Impact on Users and Content Providers. In the *proceedings of INFOCOM*, 2015.
- [6] R. Somogyi. *The Economics of Zero-rating and Net Neutrality*. 2016.
- [7] S. Cho, L. Qiu, S. Bandodyopadhyay. Should Online Content Providers Be Allowed To Subsidize Content?—An Economic Analysis. *Information Systems Research*, pages 580 – 595, Published Online: July 18, 2016.

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