Differentiated services and economic incentives in light of history

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Differentiated services and "smart" telecom pricing

- "Holy Grail" of the industry for hundreds of years
- huge literature
- many disappointments
- is it really going to be different this time?
- nota bene: generally it has dominated transportation

Development of the economy exemplified by:

Turing

Development of the economy exemplified by:

Turing Pharmaceuticals

Martin Shkreli, (generic) Daraprim tablet price increased from \$13.50 to \$750, ...

Development of the economy:

dominated by search for choke points

minimal real investments

assisted by confusology

Some instructive examples:

Verizon spokesperson, cited in *Bloomberg News*, Feb. 26, 2015, on high international roaming rates for data (up to \$20/MB):

It's a complex system; there's lots of different layers that determine rates, like regulatory and tax issues in different countries. Our goal, as always, is to provide the best value.

Some instructive examples (cont'd):

T-Mobile filing with the FCC, May 27, 2014:

- cost of delivering mobile data: \$0.002/MB
- T-Mobile wholesale prices to international carriers:

	price per MB
median	\$0.09
average	0.20
95th percentila	0.40

retail rates: up to \$20/MB

Wall Street view of main issues in pricing:

P. de Sa et. al, Bernstein Research report, June 2014: With the incremental cost of providing that extra minute of calling, or extra byte of data, close to zero, carriers generally try to price based on what they think they can get away with, constrained by competition, customer inertia (either voluntary or enforced by contracts), regulation (or threats thereof), and their execution capabilities.

Network costs not a significant factor in this view!

Development of the economy:

threats to foundations of market capitalism

engineering efficiency secondary or tertiary

 technical measures in pursuit of confusology, "damaged goods," etc.

Jules Dupuit (1849) and railroad "smart pricing"

It is not because of the few thousand francs which have to be spent to put a roof over the third-class carriages or to upholster the third-class seats that some company or other has open carriages with wooden benches. What the company is trying to do is to prevent the passengers who pay the second class fare from traveling third class; it hits the poor, not because it wants to hurt them, but to frighten the rich.

And it is again for the same reason that the companies, having proven almost cruel to the third-class passengers and mean to the second-class ones, become lavish in dealing with first-class passengers. Having refused the poor what is necessary, they give the rich what is superfluous.

More information, papers, and presentation decks:

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