## Internet architecture and governance

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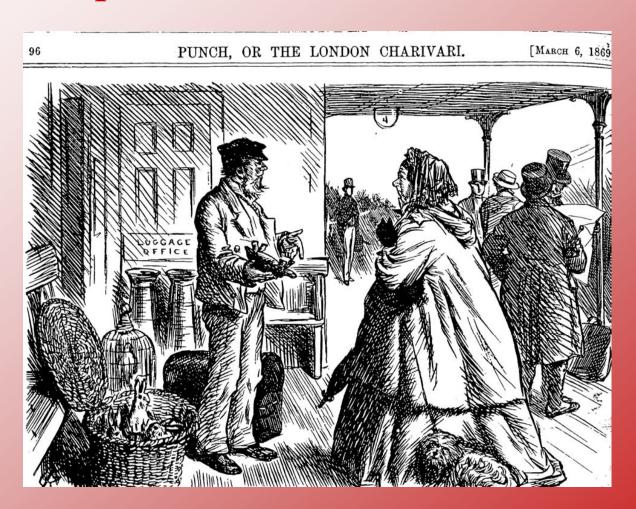
#### Motivation and outline:

- Strong movement to control the Internet:
  - what motivates it?
  - will it succeed?
- Main points:
  - extensive historical precedents for control
  - main motivation economic
  - extensive arguments for control from economics
  - control move likely to fail because of special features of the Internet (migration of costs and intelligence to edges, connectivity and not content is king, ...)

# Absurdities of government regulation often rooted in corporate practices:

Cats is 'dogs' and rabbits is 'dogs' and so's Parrats, but this 'ere 'Tortis' is a insect, and there ain't no charge for it.

Punch, 1869



# Open architecture vs. drive to price according to value:

[Alexander Graham] Bell should have anticipated Bill [Gates] and let someone else put in the phone infrastructure while he collected by the minute and distance (and even importance of the call if he could have figured a wait to monitor it) in perpetuity.

email from Warren Buffett to Jeff Raikes of Microsoft, Aug. 21, 1997

#### Key question:

#### How much control over content should carriers exercise?

- Block video?
- Prevent WiFi hot spots?

#### Voice telephone content is private now, but:

In Britain in 1889, postal officials reprimanded a Leicester subscriber for using his phone to notify the fire brigade of a nearby conflagration. The fire was not on his premises, and his contract directed him to confine his telephone "to his own business and private affairs." The Leicester Town Council, Chamber of Commerce, and Trade Protection Society all appealed to the postmaster-general, who ruled that the use of the telephone to convey intelligence of fires and riots would be permitted thenceforth.

#### 18th Century: Beverley Beck Navigation

Cargo	Toll per Ton
Sand	<b>2</b> p
Timber, stone, salt	6p
Iron and lead	12p

There is extensive evidence that such practices often aid society's welfare, in accordance with standard economic doctrine.

### Conclusions:

- Extensive arguments from economics and history for controlling the Internet
- The control arguments may not carry the day because the Internet is special:
  - connectivity is far more valuable than content
  - costs and intelligence moving to the edges
  - analogies with recent evolution of transportation

More evidence, arguments, and speculations in "Pricing and architecture of the Internet ..." at: <a href="http://www.dtc.umn.edu/~odlyzko">http://www.dtc.umn.edu/~odlyzko</a>