

Loci of Competition, Market Power, and the Evolving Internet Industry Structure

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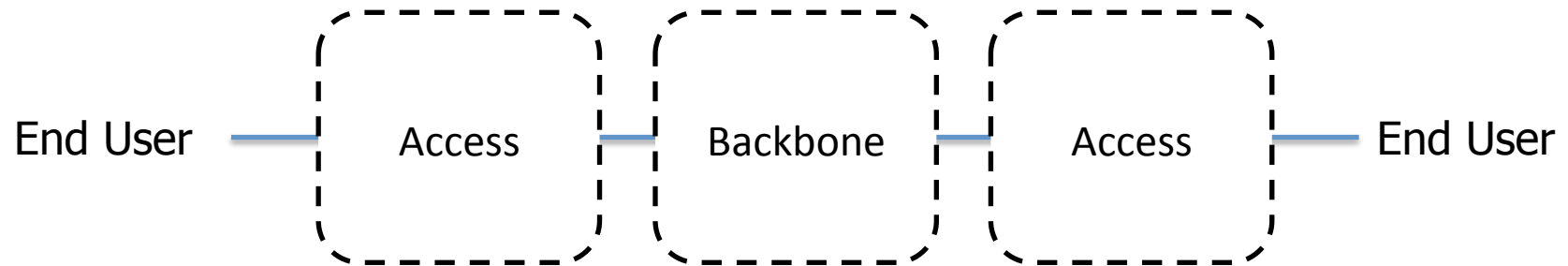
UC Berkeley School of Information

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Value Configuration

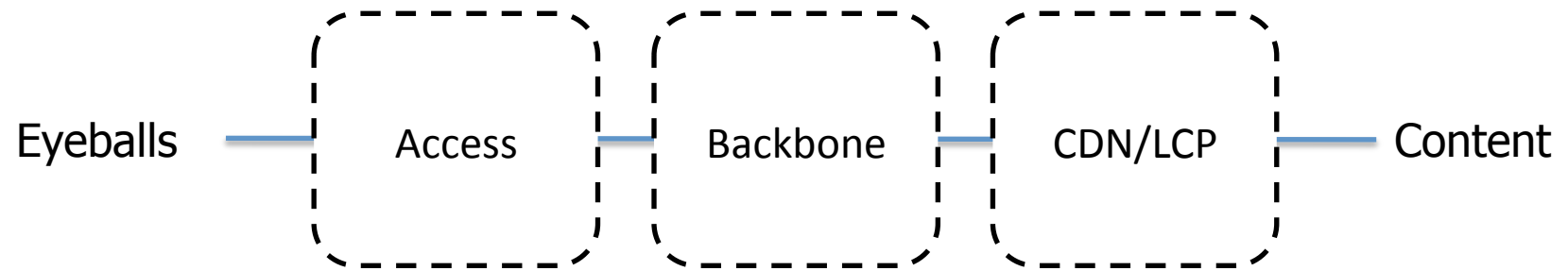
- Stabell and Fjeldstad, 1998; based on Thompson's 1967 typology of technology:
 - Intensive technology (shops)
 - Long-linked technology (chains)
 - Mediating technology (networks)
- Which is the value configuration for the Internet industry?

Supply Chain(s)

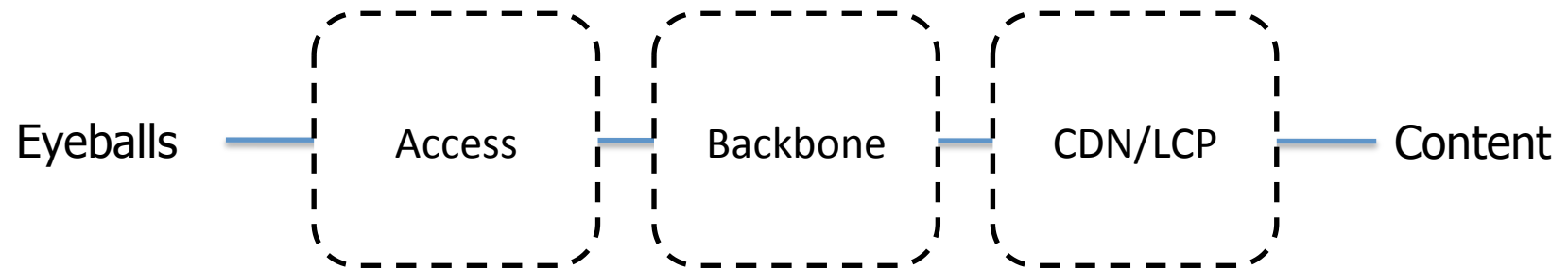


- For traditional communications, two supply chains: End users buy access service; Access network buy transit service; money flows up the respective supply chains

New Elephant in the Room



Dis-intermediation

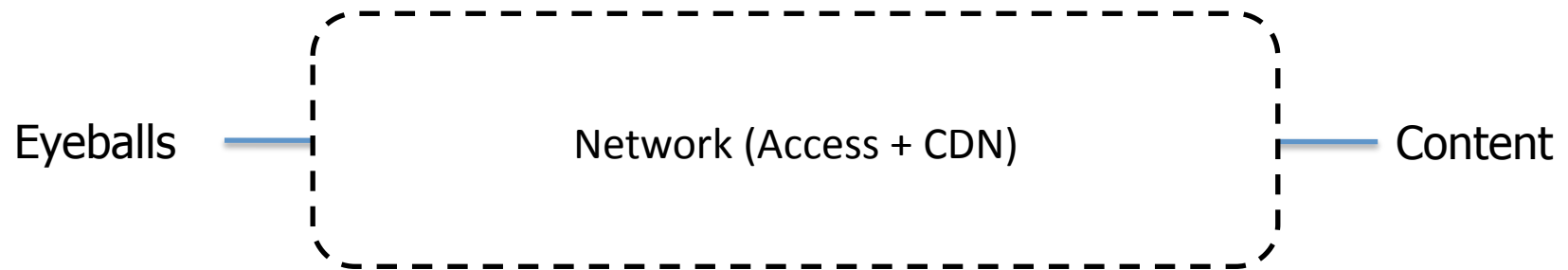


Dis-intermediation



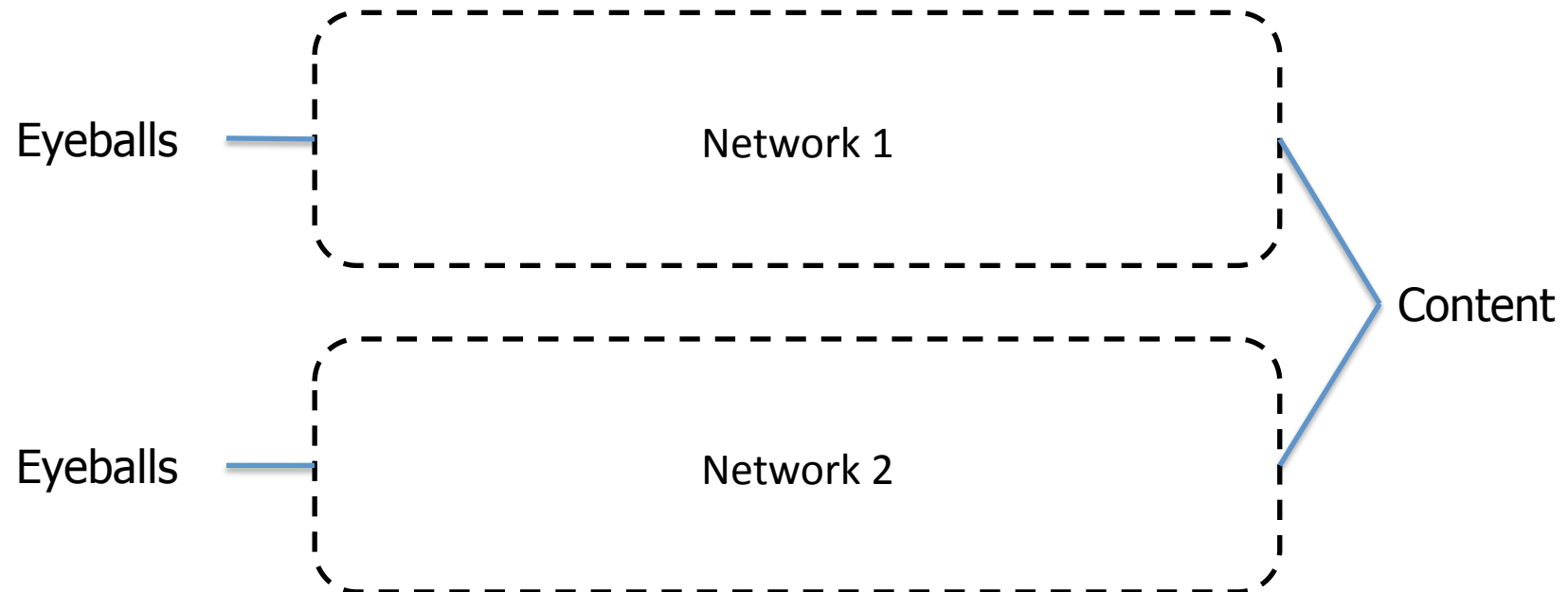
- For content distribution: supply chain model no longer accurate, since Access network is not buying content from CDN/LCP in order to sell to eyeballs
- So is this a two-sided market?

Two-Sided Market



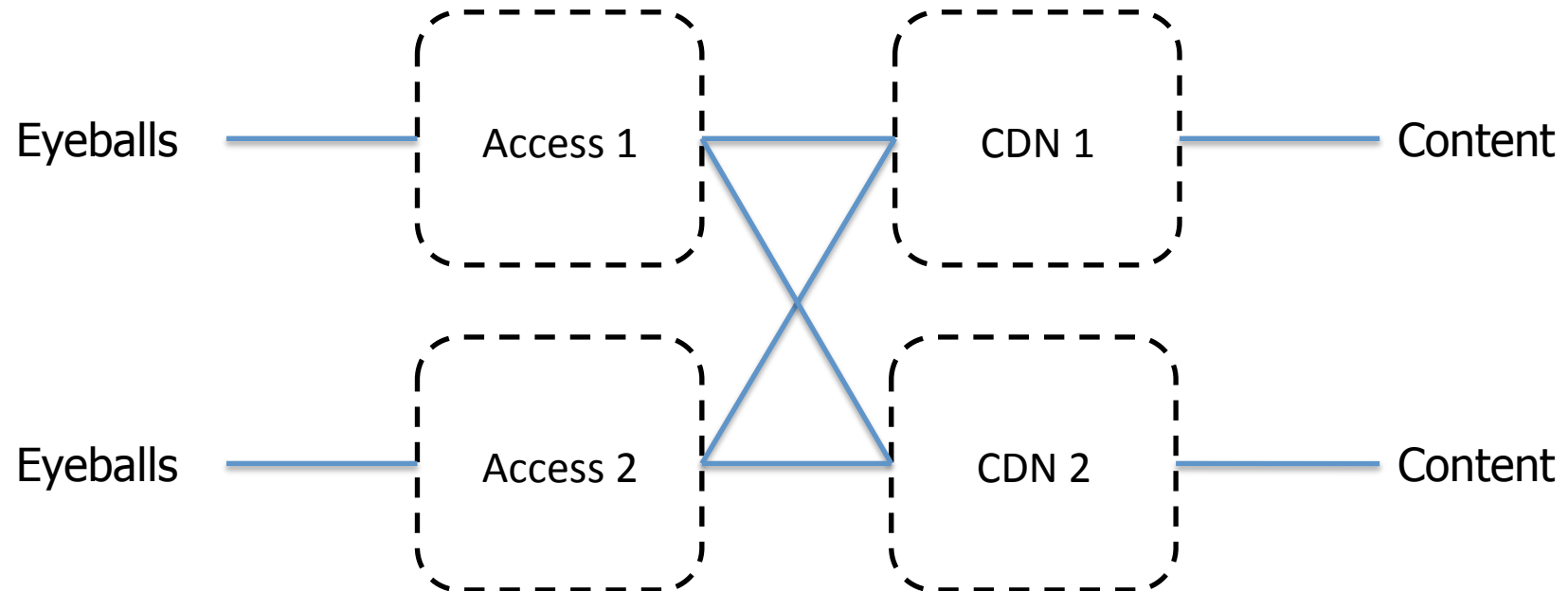
- Two-sided market if we abstract the network as a single, unified platform between the two sides, or if we assume vertical integration between Access and CDN.
- Basis for numerous recent economic models of the Internet

Platform Competition



- Consumers may face a duopoly or oligopoly
- Unless consumers choose to multi-home, content providers will have to face not one but multiple terminating access monopolies
- Conversely, originating access monopolies also possible: e.g., Fox can deny content to Cablevision customers
- **But we are getting ahead of ourselves!**
 - Vertical integration between Access and CDN is still exception, not norm

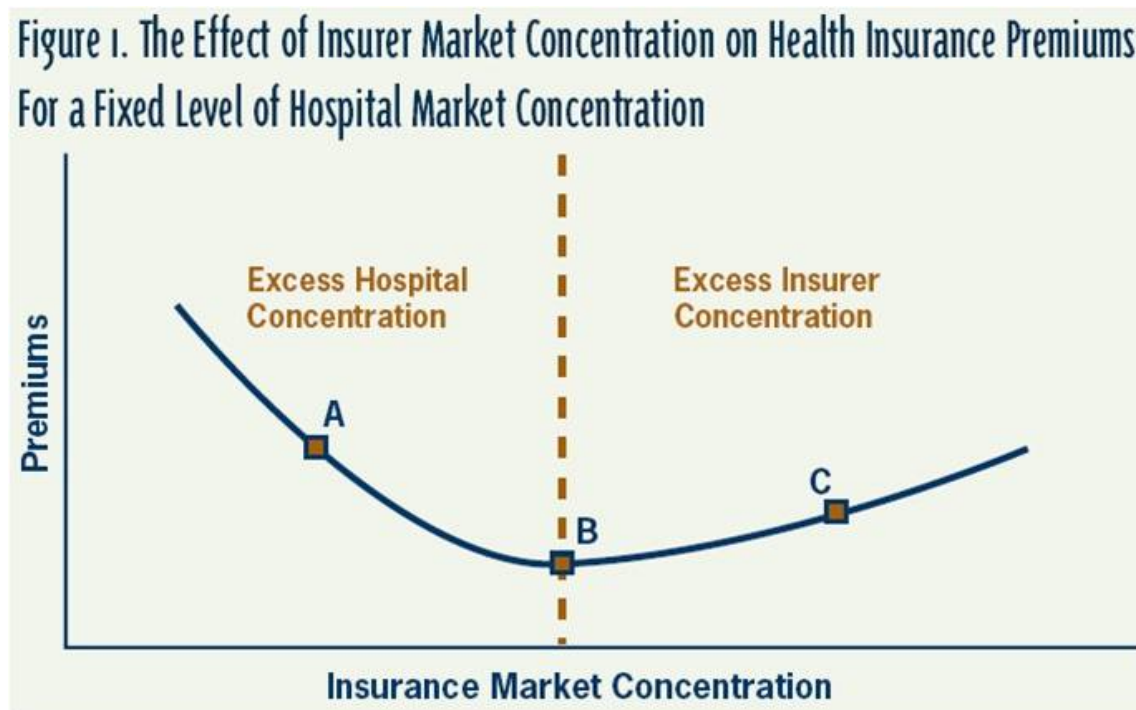
Bilateral Oligopoly



- A bilateral oligopoly is a better model of the current state of the world [Chuang, 2011]
 - Oligopolies in two adjacent loci of competition
 - Both Access and CDN/LCP firms have market power

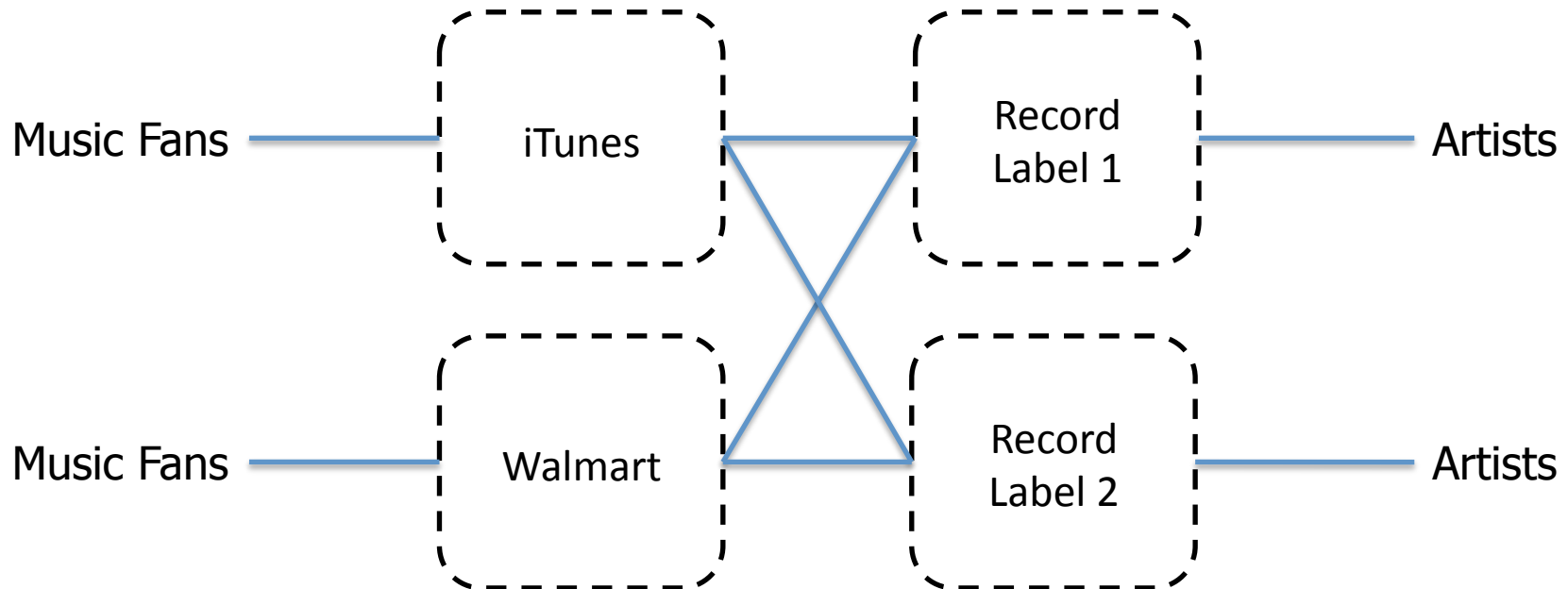
Characteristics of Bilateral Oligopolies

- Negotiation/bargaining → long-term contracts → entry barriers for both loci
- With balance of power → lower consumer prices, increased consumer surplus
- Prevalence across different industries



[Frakt, 2010]

Bilateral Oligopoly: A Different Example



- Record labels are the originating access monopolies in this case
 - Music stores have to multi-home with the top four labels
- Do music stores have negotiating power vis-à-vis record labels?
 - Think about how Apple iTunes has shaken up the music industry

Takeaway

- Market power not only due to concentration in a given market
- Market power also influenced by level of competition in adjoining loci
 - Loci may evolve with technology, service, and/or business model innovations