
From Websites to Apps: Who Is Competing with Whom Online?



Christopher S. Yoo

University of Pennsylvania Law School

June 9, 2016

The Importance of Clear Analysis

- Lessons from the *Microsoft* cases
- Warning signs in the modern debate
 - Tendency to lump “platforms” together
 - GAFA: Google, Apple, Facebook, Amazon

Analysis of United States v. *Microsoft*

Case	Theory	Evidence	Remedy
Plaintiff's case	MS created IE and Windows-specific Java to impede OS entry	MS used OEM & ISP contracts to kill Netscape	Vertically divide MS into OS and applications companies

- Brennan, Timothy J. (2001). “Do Easy Cases Make Bad Law? Antitrust Innovations or Missed Opportunities in *United States v. Microsoft*,” *George Washington Law Review* 69: 1042-1102.

Analysis of United States v. *Microsoft*

Case	Theory	Evidence	Remedy
	MS created IE and Windows-specific Java to impede OS entry		
		MS used OEM & ISP contracts to kill Netscape	
			Vertically divide MS into OS and applications cos.

Analysis of United States v. *Microsoft*

Case	Theory	Evidence	Remedy
Protecting OS monopoly	MS created IE and Windows-specific Java to impede OS entry	Netscape plus Java is the best entry path into OS market	Require divestiture of IE (or limit growth of IE)
		MS used OEM & ISP contracts to kill Netscape	
			Vertically divide MS into OS and applications cos.

Analysis of United States v. *Microsoft*

Case	Theory	Evidence	Remedy
Protecting OS monopoly	MS created IE and Windows-specific Java to impede OS entry	Netscape plus Java is the best entry path into OS market	Require divestiture of IE (or limit growth of IE)
Reducing competition for browsers	MS monopolized market for distribution of browsers	MS used OEM & ISP contracts to kill Netscape	Eliminate/limit exclusivity contracts for browsers
			Vertically divide MS into OS and applications cos.

Analysis of United States v. *Microsoft*

Case	Theory	Evidence	Remedy
Protecting OS monopoly	MS created IE and Windows-specific Java to impede OS entry	Netscape plus Java is the best entry path into OS market	Require divestiture of IE (or limit growth of IE)
Reducing competition for browsers	MS monopolized market for distribution of browsers	MS used OEM & ISP contracts to kill Netscape	Eliminate/limit exclusivity contracts for browsers
Applications lock-in	Protect Windows by refusing to create Office for Linux or Internet	Office is the killer app; MS favored its own applications	Vertically divide MS into OS and applications cos.

Risks of General Calls for Platform Neutrality

■ French Digital Council

In the same opinion, the CNNum also noted that digital society does not only consist of the actual networks but also of access and communication services in which platforms play a central role.

By pairing supply and demand, platforms help to boost trade and therefore economic activity levels. Most of them base their models on a mass user function, which helps to team product or service offerings with potential buyers. Apple, Amazon, Expedia, Facebook, Google, Microsoft, Netflix, Twitter and Yahoo! all act as online intermediaries and provide valuable tools which can lead to the creation of new business lines and value chains. They promote innovation either directly or indirectly by investing their earnings to fund or buy innovative start-ups.

Different Business Models

- Advertising
- Hardware
- Services

Advertising Markets

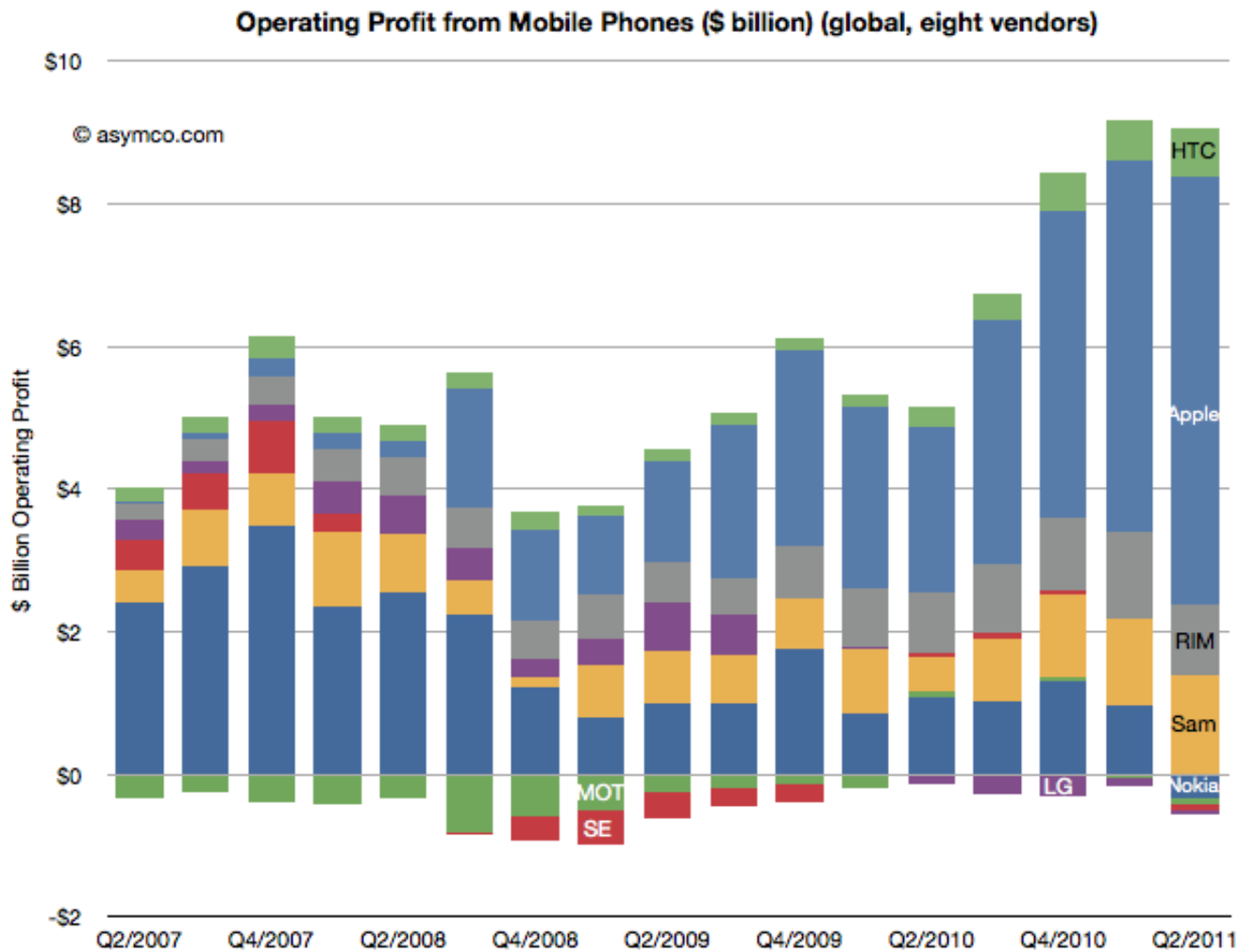
- Data: FCC (2015)
- Key question re substitution: cross-price elasticity

Local Advertising Revenue	2011	2012	2013 proj.	Share
Daily Newspaper	16,915	15,610	14,909	21%
Internet	12,372	13,098	13,832	19%
Radio	11,264	11,391	11,437	16%
Broadcast TV Stations	10,308	11,674	10,856	15%
Other	12,559	11,386	10,704	15%
Cable TV	4,324	4,990	4,999	7%
Mobile	757	1,596	3,058	4%
Regional Sports Networks	842	933	1,051	1%
Telco	161	324	419	1%
Total Local	69,503	71,002	71,264	100%

Advertising Markets

National Advertising Revenue	2011	2012	2013 proj.	Share
Cable & VOD Networks	24,630	25,617	27,567	18%
Internet	18,215	19,956	21,576	14%
Broadcast Networks	17,590	18,563	17,862	12%
Broadcast TV Stations	8,331	9,164	8,523	6%
Mobile	1,249	2,379	4,261	3%
Daily Newspaper	3,777	3,335	3,118	2%
Barter Syndication	2,960	3,022	3,085	2%
Radio	2,795	2,814	2,834	2%
Radio Network	1,136	1,181	1,199	1%
DBS	918	1,067	1,143	1%
Satellite Radio	87	97	105	0%
Other	<u>62,187</u>	<u>63,044</u>	<u>62,019</u>	<u>40%</u>
Total National	144,729	149,088	148,844	100%

Hardware Markets



Source: Asymco

Markets for Services

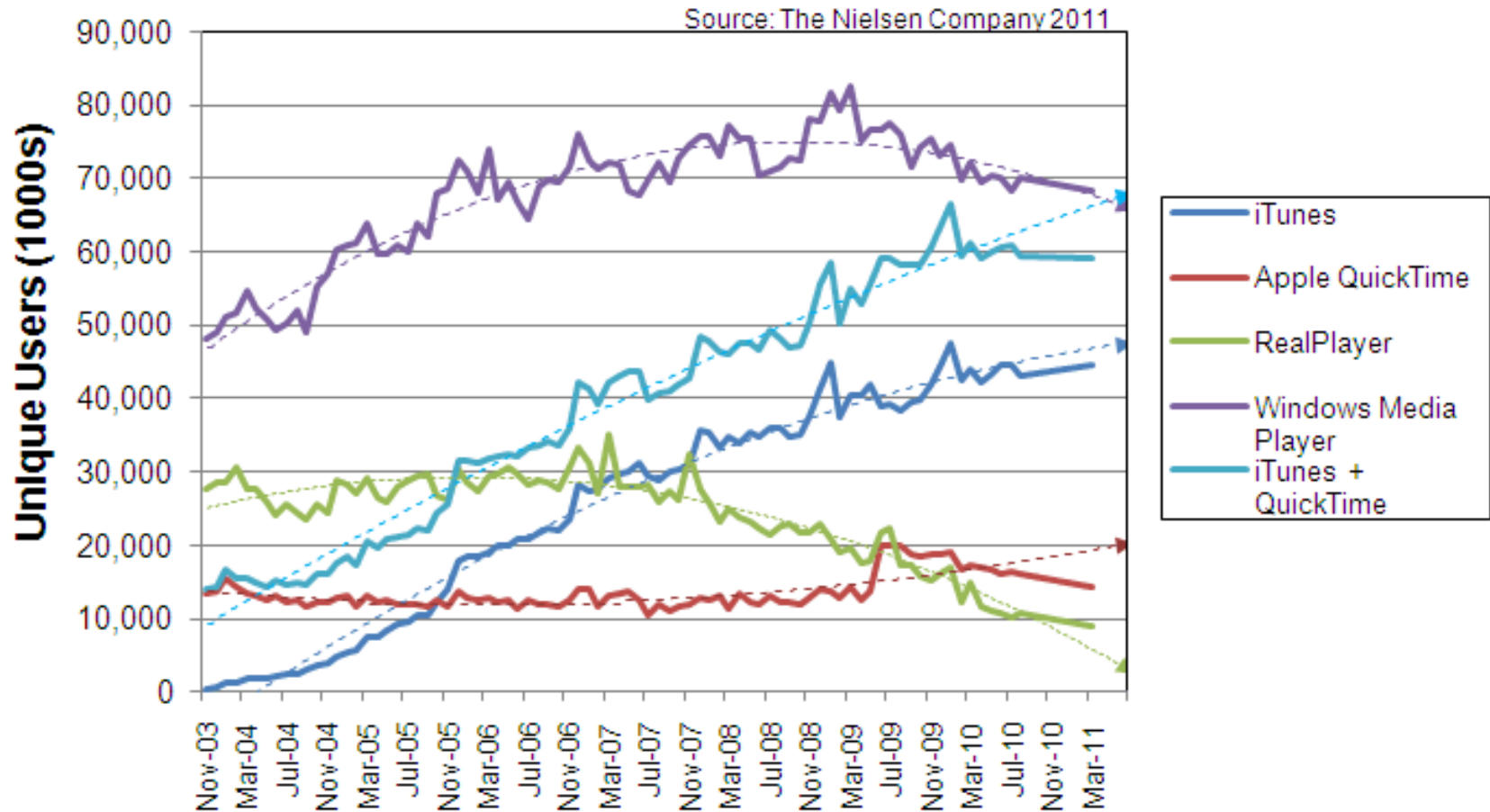
- Mobile apps vs. fixed-line browsing
- Mobile apps vs. mobile browsing
- Subscription services vs. one-time payments

Product Market Definition

- EU classification of each mobile operating system as a separate product market?
- Classic argument between inter-brand and intra-brand competition
- Economic debates over vertical integration
 - Theory is ambiguous
 - Surveys of the empirical literature indicates that vertical integration is harmless/beneficial

The Ineffectiveness of Remedies

**Streaming Media Players - Unique Users (in thousands)
from November 2003 to March 2011**



The Noninevitability of Success

THE WALL STREET JOURNAL.

Christopher Yoo ▾

WSJ+

Home World U.S. Politics Economy Business **Tech** Markets Opinion Arts Life Real Estate

Search 🔍

Navigation bar with article thumbnails and titles:

- Uber Reaches a Tipping Point With Its Drivers
- Federal Prosecutors Drop Case to Force Apple to Unlock iPhone
- Tech Shares Fail to Join the Party
- Meet the Venture Capitalist Whom Venture Capitalists Love to Hate
- China Or to Halt C Movie Se

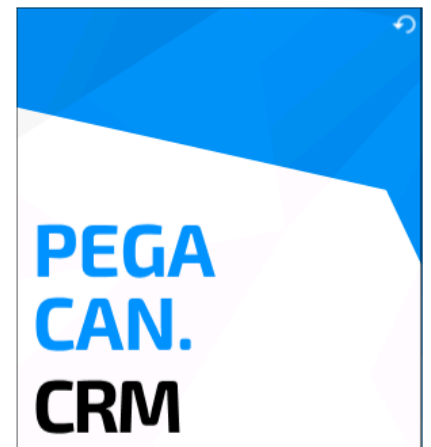
BREAKING NEWS Documents show how one man built ISIS's oil network, helping form the world's wealthiest terror group

- f 125
- 🐦
- ✉
- ★
- 🗣
- AA
- ⋮

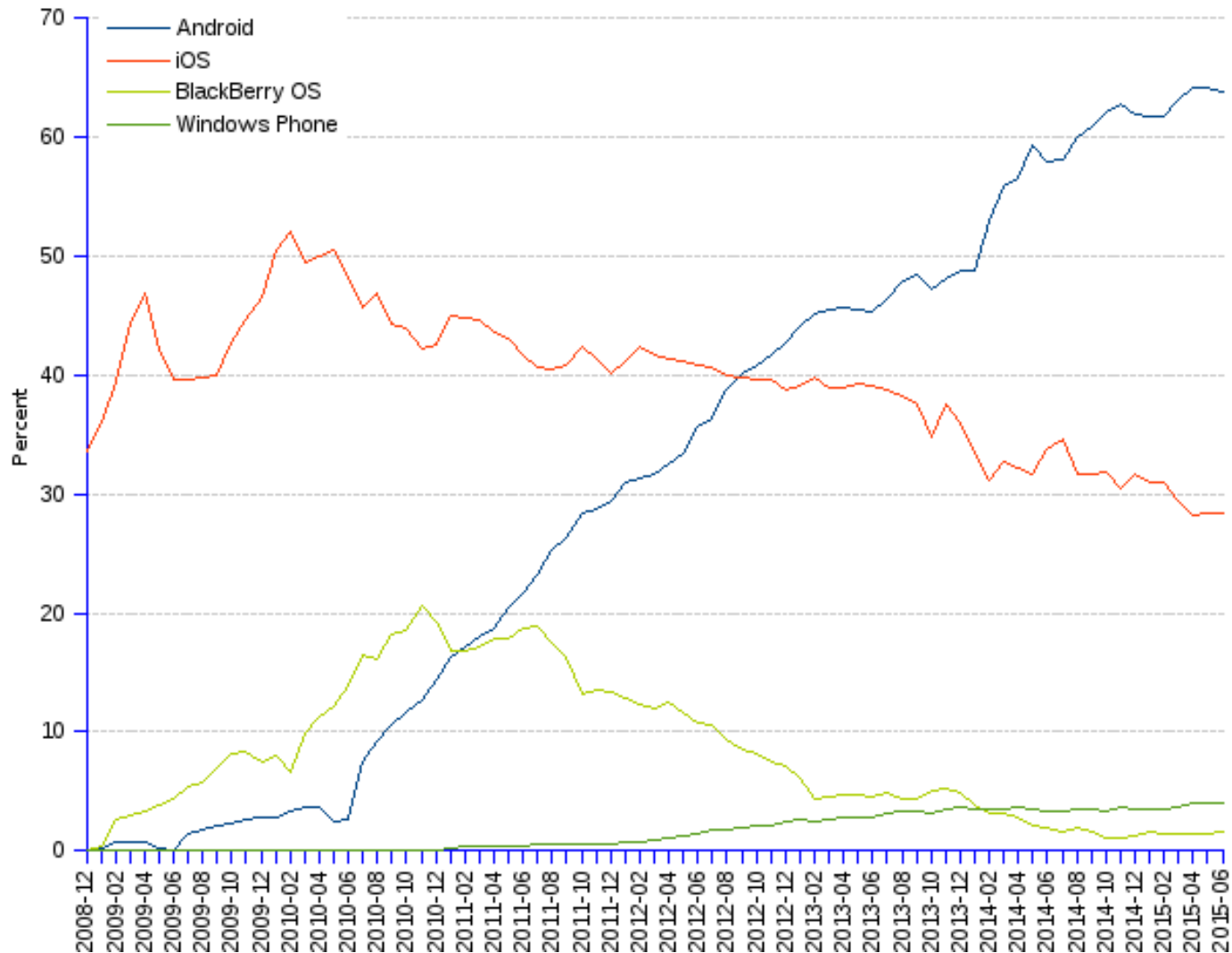
TECH

Google Shuttering Comparison-Shopping Site for Auto Insurance, Credit Cards, Mortgages

Google Compare shutdown after one year is a setback to the Alphabet Inc. unit's efforts to provide niche shopping services and financial-services tools

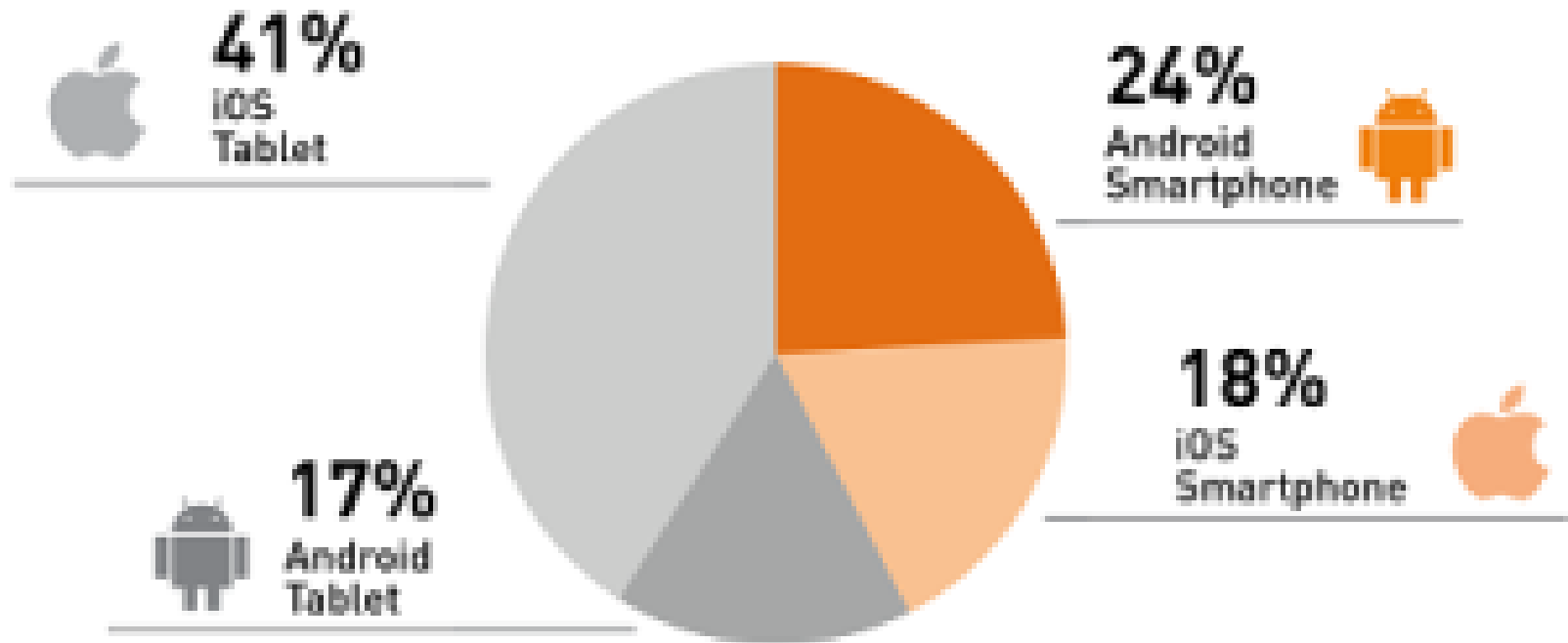


Mobile OS Market Share by Volume



Mobile OS Market Share by Revenue

MOBILE REVENUE PER DEVICE IN 2014



Shopping Sites in Germany

