

# Data Analytics in Business

## Marketing & Advertising

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L1.3: Overview of Digital  
Ad Market



## Learning Objectives

**At the end of this lesson, you should be able to:**

- Understand and describe the general financial landscape of interactive advertising in recent years
- Explain the relative financial sizes of type of digital advertising
- Point out opportunities for new products in the industry of digital advertising



# Marketing and Advertising

In this series of 3 modules, we look into data analysis in marketing and advertising

## Outline of Marketing Modules

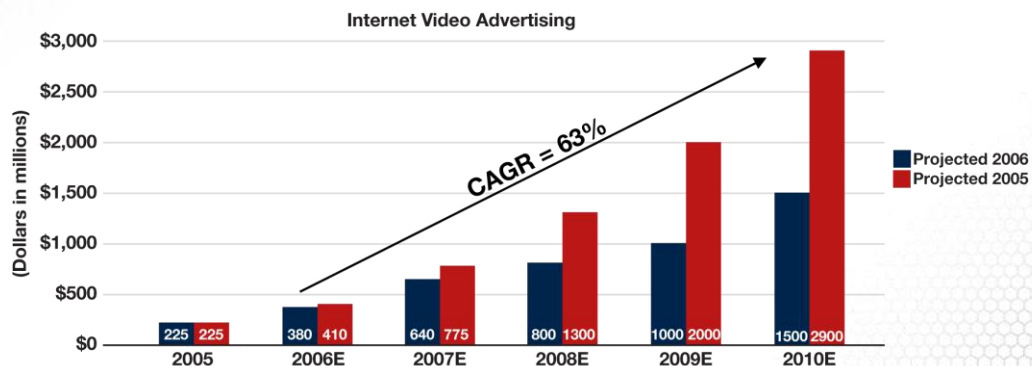
- Traditional Advertising & Marketing
- Evolution of Advertising Companies
- Overview of Systems of Digital Advertising
- **Overview of Digital Advertising Market**
  - Display Advertising
  - Search Engine Marketing
  - Social Media Advertising
  - Mobile Advertising & Messaging
- Building Campaigns and Media Buying
- Optimizing Media Campaigns



## Video Advertising: Fast Growing Market

By 2010, spending on internet advertising = 10 percent of total U.S ad dollars

*Fastest Growing Segment: online video ads to reach \$2 billion by 2009*



Source: eMarketer, October 2006 (Projected!!!)

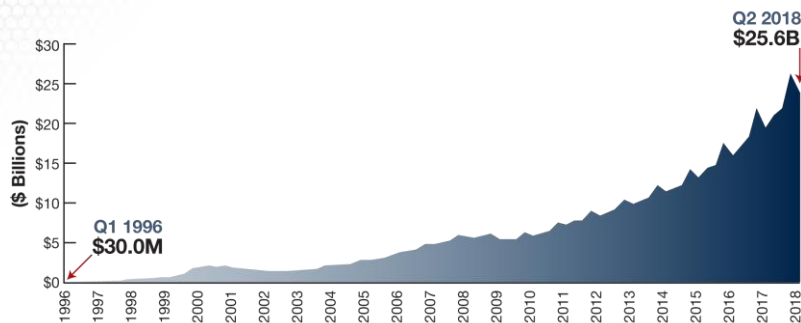


# Overview of Digital Advertising Market

- Information from Internet Advertising Bureau
- [www.iab.com/insights](http://www.iab.com/insights)
- Internet Advertising Revenue Report for 2018 conducted by PriceWaterhouse Coopers (PWC)

## Quarterly Revenue Growth Trends

Quarterly revenue growth trends 1996-2018

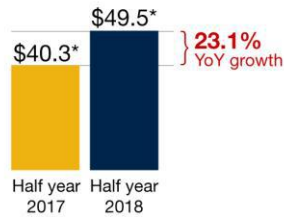


\* Digital audio advertising revenues have been revised for HY 2016 and HY 2017 to include Podcast advertising  
Source: IAB/PwC Internet Ad Revenue Report, HY 2018

# 2017 to 2018 Interactive Ads Revenues

## HY 2017 vs. HY 2018 revenue

(\$ billions)



\* Digital audio advertising revenues have been revised for HY 2016 and HY 2017 to include Podcast advertising.

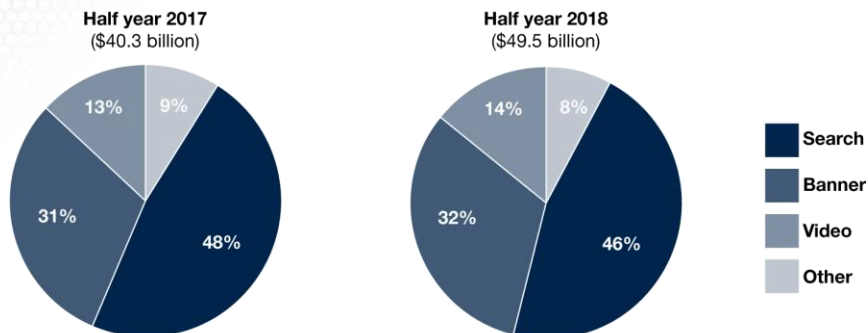
	As originally reported	As revised
HY 2016	\$32,738	\$32,789
HY 2017	\$40,138	\$40,251

Source: IAB/PwC Internet Ad Revenue Report, HY 2018

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# Advertising Revenue by Types of Ads

## Advertising format revenue, half year results



\* Banner includes: Ad Banners/Display, Rich Media, and Sponsorship.

\*\* Other includes: Classifieds, Lead Generation, Audio, and Unspecified.

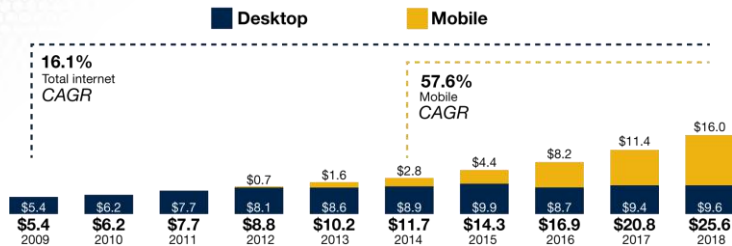
Note: Totals may not equal 100% due to rounding.

Source: IAB/PwC Internet Ad Revenue Report, HY 2018

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# Strong Growth of Mobile Advertising

**Desktop vs. mobile internet advertising revenue**  
(Second quarter results, \$ billions)



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## Example: Google - Quarterly Financials

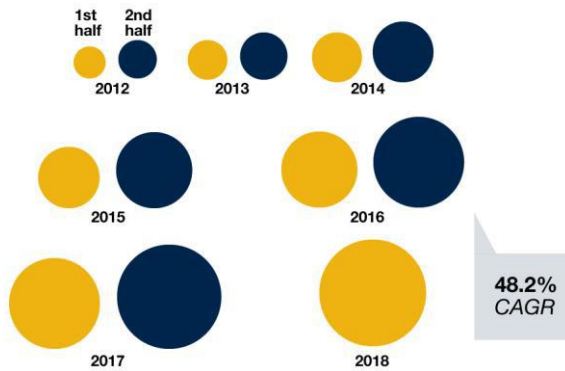
NASDAQ: GOOG Quarterly Financials	Sep 2018	Y/Y
Revenue	33.74B	21.49% ↑
Net Income	9.19B	36.54% ↑
Diluted EPS	13.06	36.47% ↑
Net Profit Margin	27.24%	12.38% ↑
Operating income	8.31B	6.78% ↑
Net change in cash	-705M	
Cash on hand	13.44B	27.05% ↑
Cost of revenue	14.28B	28.1% ↑

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# Social Media Advertising: If Year Growth

**Note:** We define social media as advertising delivered on social platforms, including social networking and social gaming websites and apps, across all device types, including desktop, laptop, smartphone and tablet.

**Social media advertising revenue, half year results**  
(\$ billions)



Source: IAB/PwC Internet Ad Revenue Report, HY 2018

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## Example: Facebook - Quarterly Financials

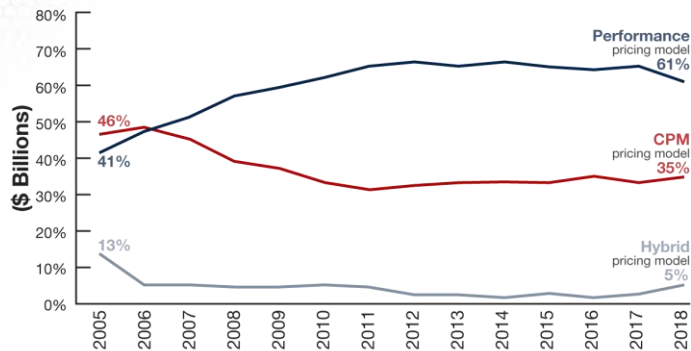
NASDAQ: FB Quarterly Financials	Dec 2018	Y/Y
Revenue	16.91B	30.39% ↑
Net Income	6.88B	61.21% ↑
Diluted EPS	2.38B	64.14% ↑
Net Profit Margin	40.69%	23.64% ↑
Operating income	7.82B	6.37% ↑
Net change in cash	380M	56.72% ↓
Cash on hand	10.02B	24.01% ↑
Cost of revenue	2.8B	73.56% ↑

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# Changes of Pricing Models

**Internet advertising revenue by pricing model\*, 2005-2018 (% of total revenue)**



\* Pricing model definitions may have changed over the time period depicted both within the survey process and as interpreted by survey respondents.  
Note: Totals may not equal 100% due to rounding.

Source: IAB/PwC Internet Ad Revenue Report, HY 2018



# Highlights of the 2018 IAB Report

<b>2</b>	<b>Executive summary:</b>	Revenues increase 23.1% from HY 2017
<b>3</b>	<b>Half year growth:</b>	Year-to-date revenues continue to show strong growth
<b>4</b>	<b>Key growth drivers:</b>	Agility, commerce, audio, Gen Z's, and digital video highlight this year's growth drivers
<b>6</b>	<b>Quarterly growth:</b>	Revenues grew 22.9% between Q1 and Q2 2018
<b>9</b>	<b>Historical revenue mix:</b>	The first 6 months reach \$49.5b
<b>10</b>	<b>Revenue concentration:</b>	Top 10 companies command 76% of the market
<b>11</b>	<b>Half year 2018 results:</b>	Search still leads all formats at 46.1%
<b>12</b>	<b>Q2 2018 results:</b>	Video climbs to a 13.6% share of overall revenues
<b>15</b>	<b>Digital video (desktop vs. mobile):</b>	Mobile digital video revenue hit \$4.2b
<b>16</b>	<b>Social media:</b>	\$13.1b of digital ad revenue attributable to social
<b>17</b>	<b>Digital audio:</b>	Total digital audio ad revenues \$1b
<b>18</b>	<b>Pricing models:</b>	Hybrid shoots up to \$4.6 of total ad revenues



# What Comes Next?

Today privacy and trust are viewed as compromised esp. in social networks

## Big New Opportunity?

- Read: Time Magazine article on social media & Facebook: 28 Jan 2019
- Watch: “The Great Hack” on Netflix (about Cambridge Analytica)



# Summary

## Outline of This Marketing Module

1. Traditional Advertising & Marketing
2. Evolution of Advertising Companies
3. Overview of Systems of Digital Advertising
4. Overview of Digital Advertising Market

