2013

Technology Guide

Understanding What Drives Today's Media

The days of only understanding traditional media are gone for sales teams. In today's media landscape, sellers and buyers must understand the various technologies that power media choices as well as create user experiences. Having a better understanding and foundation around these technologies will separate those that are true media consultants from those that are product only sellers.

Jesse Walton

8/1/2013

Welcome to the 2013 **"Technology Guide – Understanding What Drives Today's Media."** We are experiencing the most drastic change this industry has ever seen. This guide is for any sales team that is looking to stay on the cutting edge of new technologies, products, and platforms. Technological advances have not only changed what most of us sell, but it has changed how we sell them. No longer can we afford not knowing how each technology, product or latest platform developed is impacting your sales organization. Additionally, we have moved into an era where we must know how these technologies and changes impact those we sell against. In this day and age, you cannot know your *competitive advantage*, without first having a fundamental understanding on what new technologies have been created or are being used to create *competitive advantages* for another sales team. The line of "internal vs. external" products is completely blurred without first understanding what is shaping our industry today.

Not only accepting change, but welcoming change will be the ***durable competitive advantage*** of all future successful sales teams. I believe the quote below sums up the media industry and speaks to the necessity of any sales team being "***agents of change***."

> *As our Industry navigates this brave new digital world, it must embrace the change that comes with this paradigm shift if companies are not just to survive but to thrive. The growing ubiquity of digital media platforms represents perhaps the greatest moment of value expansion this industry has ever seen; but the realization of this value may not be easy and there will be winners and losers along the way.*
>
> ***- comScore***

Clarity precedes mastery. The clearer you are with understanding the evolution of our industry, the more success you will have. This will be lasting success; this will be **YOUR** durable competitive advantage.

Regards,

Jesse Walton
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INTRODUCTION

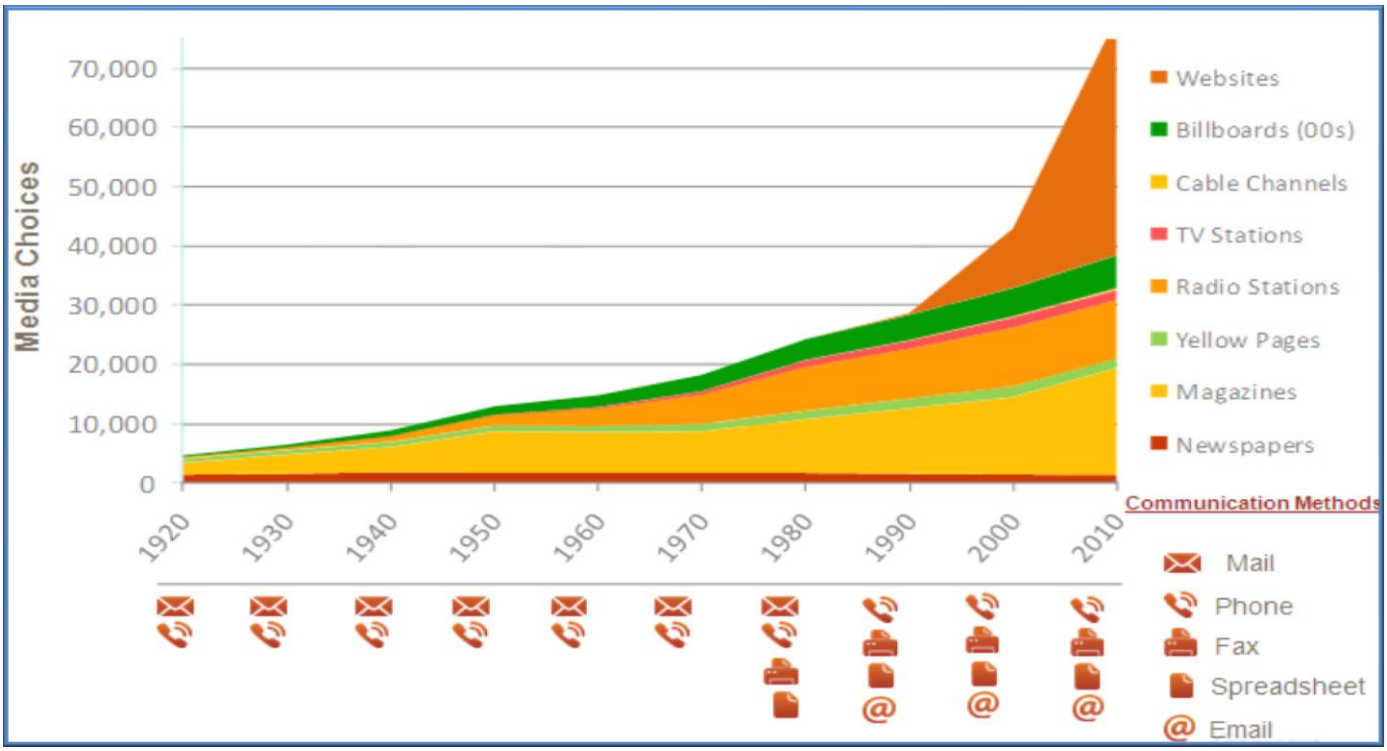
Before we dive in, let's first warm up the brain a little bit. "Big Data" is taking the industry by storm and how we comprehend and use this information will be vital for companies to thrive. Below are a just a few eye-catching stats to warm us all up and get us in the right frame of mind!

- 92% of the world's data was created in just the past two years
- Today's Smartphone would have been most powerful computer in the world in 1985
- 120 million people in the U.S. now own Smartphones, up 30 million in just the past year
- For $600 you can buy a disk that can store all of the world's music
- 120 billion pieces of data are added to Facebook every month
- 72 hours of video are added to YouTube every minute
- Google records 2 million searches every second
- Every second something is bought on eBay/Amazon via a mobile device

COMPANIES

Companies are eyeing new, creative advertising approaches as online video, mobile video and video-on-demand (VOD) initiatives become a greater part of the media consumption pie. Consumers are fundamentally changing the way they view video and television as it's no longer about sitting around the living room watching whatever happens to be on. This 'change' is creating rich opportunities for operators and content providers alike to gain new revenue streams and take on new roles in consumers lives.

Media Company Complexity of Today



ROKU

ROKU is an American, privately held, consumer electronics company that sells home digital media products. The company is based in Saratoga, California. Roku manufactures a variety of digital media receivers that allow customers to access internet streamed video or audio services through televisions. This includes subscription-based services as well as services that are available through the receiver free of charge.

Roku is a tiny little box that streams movies and channels to your TV set. Is the box that tiny? Yes, the ROKU LT weighs 0.3 ounces and 3.9 x 3.9 x 1 inches. The box will connect to your TV through an AV cable or HDMI cable and requires an internet connection. The older models require you to connect using an Ethernet cable to the modem but the newer models have inbuilt Wi-Fi. The most amazing feature on the box is the Plex media server which boasts a smooth interface that lets you watch any movie you own or have rented on any device including your tablet and Smartphone.

Roku comes preloaded with various channels like Netflix, Hulu Plus, Amazon Instant Video, VUDU and HBO GO – The list is endless. After setting up – This little box will allow you to stream films, TV programs, music, photos, video sharing and games. To top it off, you can also browse international news, sports, clips and more

Technology Graph

First generation

On May 20, 2008 was the first Roku Netflix Internet video streaming receiver box, the Roku DVP. The NXP-powered device runs Linux. The XD / S have HDMI and component output for high-definition video in new and older TVs.
Prior to fall 2010, three versions of the Roku DVP were available: Roku SD, HD and HD-XR. The Roku SD streams only standard-definition (SD) content .The Roku HD streams both SD and HD content.

Second generation

On July 20, 2011 Roku updated its product range with three new boxes. Also introduced was the Roku Remote, which uses Hillcrest Labs' Freespace motion control technology, so users can control games with natural gestures. The Netflix application was for the Roku 2 HD, Roku 2 XD and Roku 2 XS revised. On October 29, 2012 the feature "Roku Search" has been added. This feature allows users to film and TV show titles, actors and directors for multiple services such as Netflix on Roku Search, Go Amazon Instant Video and HBO.

Third Generation

On March 5, 2013 Roku announced the release of their updated media player, Roku 3, with a CPU that is five times faster than the Roku 2 XS, and a Wi-Fi Direct remote instead of Bluetooth. The Roku remote control 3 contains a headphone jack (headphones included with the delivery) for a private playback mode.

Should Comcast, Time Warner, Dish and other providers worry?

To answer the question posed by the title of this article, Roku — by itself – definitely won't kill cable and satellite. But, along with other streaming options, it will further put a dent in the oligopoly of home video providers that has been continually raising its prices over the years. Roku gives users a choice. You can subscribe to just the channels you want or just pay for just the shows you want to watch. And, because almost all of these channels are also available to watch on the web and/or on mobile devices, you also get a choice as to where to watch your shows.

Apple TV

Apple TV is a small device (digital media receiver) that uses a cable to connect to your television. It uses wifi to connect to your home network and the internet. Its purpose is to stream media content from the iTunes Store, Netflix, Hulu Plus, YouTube, Flickr, iCloud, MLB.tv, NBA League Pass, NHL GameCenter, or any Mac OS X or Windows computer running iTunes on an enhanced-definition or high-definition widescreen television.

In September 2010, Apple announced a second-generation version of the Apple TV. About one-quarter of the size and one-third of the price of the original Apple TV, the new device could stream rented content from iTunes and video from computers or iOS devices via AirPlay. The new version no longer has the hard drive; however, it does have an undocumented internal 8 GB flash storage, speculated to be used for smoother playback of streamed media. All content is drawn from online or locally connected sources. A third generation of the device was introduced at an Apple event on March 7, 2012, with new features such as higher resolution and a new user interface.

Apple TV can only stream music or movies stored in a computer's iTunes library. It does not see videos or other music stored in folders on your computers. This is both good news and bad news. The good news is that Apple TV works seamlessly with Mac computers and PCs running iTunes. The bad news is that you cannot access movies saved outside an iTunes library. If you are an iTunes or iPhone user, Apple TV might be right for you. If you have a number of computers in your home network, or a network attached storage (NAS) device, you may want to choose another type of network media player.

Notable competitors include Western Digital Media Center, Roku, Boxee, YouView, Google TV, and Chromecast, as well as Smart TVs from companies such as Samsung, Sony, and LG.

Reviews:

The Good

The Apple TV lets you stream all the video content in the iTunes Store to your HDTV, with purchases stored in the cloud. Netflix, Hulu Plus, HBO Go, MLB.TV, and a handful of other online media services are available, plus music, videos, and photos can be streamed from iOS devices using AirPlay. AirPlay Mirroring lets you stream any Web video to the Apple TV, if you have a newer Mac running Mountain Lion. And the Apple TV's user interface is one of the best there is.

The Bad

The competing Roku 3 offers more content sources (including Amazon Instant), cross-platform search, and a remote with a headphone jack. The Apple TV is less of a standout streamer box if you don't own other Apple devices.

The Bottom Line

While it's still a step behind the Roku 3, the Apple TV is an excellent streaming box, especially for those invested in the Apple ecosystem.

Netflix

Netflix is a company offering streaming movies over the Internet, while also offering movie rentals by mail. The company was founded in 1997. Its headquarters is located in Los Gatos in California. In 2009, it offered a collection of 100,000 titles and exceeded 11 million subscribers. In 2011, the service has over 25 million subscribers.

In August 2010, the Company acquired for about one billion U.S. dollars the rights to the online distribution of films, the film studios Paramount Pictures, Lions Gate Entertainment and Metro-Goldwyn-Mayer. In December 2010, Netflix had a market value of about ten billion U.S. dollars. For the third quarter of 2011, the company reported worldwide revenue of 822 million U.S. dollars. And now with 23.8 million subscribers, Netflix is the largest video provider of the United States. In terms of the number of users in the US, Netflix has already more viewers than conventional TV stations.

Services:

DVD Rental

Netflix offers a rental service DVD by mail. The subscriber pays a monthly subscription and receives the films of his choice by mail. There is no time limit but there is a limit to the number of movies that subscribers may simultaneously depending on the subscription level.

Movies Streaming

Netflix offers a movie streaming for computers running Windows , Mac OS and Linux , as well as a number of compatible devices (Wii , Xbox 360 , PS3 , Wii U). This service is available to subscribers of the default standard Netflix service but the whole catalog is not accessible.
At peak times, that is to say in the evening, Netflix is responsible in 2011 for approximately 29.7% of the traffic Internet in North America.

Productions

In March 2011, Netflix announced to offer its customers productions besides the repetition of other television series.] The first self-production started in February 2013 David Fincher's political drama *House of Cards* with Oscar winner Kevin Spacey in the lead role. in early 2012 took Netflix the Norwegian -American co-produced dramedy television series *Lilyhammer* into their programs, and in May published 2013, new episodes of the 2006 Fox sold comedy series *Arrested Development*. Also celebrated 2013, the dramedy television series *Orange Is the New Black* and Horror Series *Hemlock Grove* at the premiere online service. In 2014 the publications of the drama series are *narcos* and the science fiction series *Sense8* planned.

Competition

Netflix wants to co-exist with ISPs/MVPDs to avoid pricing wars: “The stability of the MVPD subscriber base, despite Netflix large membership, suggests that most members consider Netflix complementary to, rather than a substitute for, MVPD video.” So don’t blame Netflix and therefore don’t punish Netflix customers by charging more for heavy video usage. (This is an argument for net neutrality without using that politically charged term.)

Amazon

Amazon.com was founded by Jeff Bezos in July 1994 and is an American international multibillion dollar e-commerce company with headquarters in Seattle, Washington. It is the world's largest online retailer. Amazon.com started as an online bookstore, but soon diversified, selling DVDs, VHSs, CDs, video and MP3 downloads/streaming, software, video games, electronics, apparel, furniture, food, toys, and jewelry. The company also produces consumer electronics—notably the Amazon Kindle e-book reader and the Kindle Fire tablet computer—and is a major provider of cloud computing services. Amazon has chosen to propose several competing sources for the products it offers, rather than having a strategy affiliation unique. This strategy deprives potential exclusive affiliate income, but can offer more competitive prices (and therefore expect larger volumes). The company also acquires thereby a reputation for neutrality makes it a direct competitor of Google as a source of information on products.

Amazon is one with Apple, Google and Facebook as the “Big Four” internet players. In 2012, the company employs 51,300 people worldwide.

The Platform Marketplace Amazon

Amazon also offers individuals as specialized vendors, since November 7, 2003, to sell their own items, provided that they are referenced in the Amazon catalog, via the platform "Marketplace". For France, Amazon takes a commission on the sale price, management fee and a fixed fee per item, and also taken in accordance with the law, a tax on the value added. In February 2013, Amazon announced the unilateral 50% increase in fees levied on the sale of cultural products. For example, on each book sold from April 4, a seller affiliated sees subtracted management fees ranging from $1-$4; 15% of the total against 10 44% previously.

Worldwide Distribution

Amazon in addition to its main business has numerous other sites such as search engines A9.com, Alexa Internet and the movie database IMDb. Although the Company delivers to the whole world, the logistics center and internet stores focus on the very well industrialized countries and China. In Romania Iasi Amazon operates a development center for software.

Revenue

Over the last decade, Amazon has developed a customer base of around 30 million people. Amazon.com is primarily a retail site with a sales revenue model. Amazon makes its money by taking a small percentage of the sale price of each item that is sold through its website. Amazon also allows companies to advertise their products by paying to be listed as featured products. In Q1 2012, Amazon reported a loss due to its stake in Living Social.

Amazon Prime Video

Amazon Prime Video has recently emerged as a strong competitor in the online video content game. Similar to Netflix, Hulu and Apple TV who stream video over the internet, Amazon Prime Video allows members access to movies, TV Shows and other video content On Demand. Amazon's Instant Video store (on the Web site) has all the major studios and networks just like Apple does. Even so, availability of content is a mixed and mysterious bag, as it is with most online video stores these days.

Pandora

Pandora Internet Radio (also known as Pandora Radio or simply Pandora) is an automated music recommendation service and "custodian" of the Music Genome Project. The service plays musical selections of a certain genre based on the user's artist selection. The user then provides positive or negative feedback for songs chosen by the service, which are taken into account when Pandora selects future songs.

While listening, users are offered the ability to buy the songs or albums at various online retailers. Over 400 different musical attributes are considered when selecting the next song. These 400 attributes are combined into larger groups called focus traits. There are 2,000 focus traits. Examples of these are rhythm syncopation, key tonality, vocal harmonies, and displayed instrumental proficiency.

Pandora can also be accessed through many media streaming devices, such as Roku, Smart TVs, computers, tablets, etc. On July 11, 2008, Pandora launched a mobile version of their software for the Apple iPhone, iPad, and iPod Touch through the iTunes App Store. Pandora is also available for Windows Phone, Android phones and BlackBerry platforms. Pandora was the provider for MSN Radio until MSN discontinued their internet radio service on June 18, 2008. A modified version of Pandora has been made available for Sprint Nextel.

The service has two subscription plans: a free subscription supported by advertisements, and a fee-based subscription without ads. There are also ads in Pandora Mobile for mobile phones and the Pandora in The Home computer appliance. Most users choose the free subscription.

In May 2010, Pandora was named in Lead411's 2010 Hottest San Francisco Companies list. In January 2011, Pandora met with investment banks to consider a possible $100 million IPO. The company filed with the SEC for a $100mm IPO on February 11, 2011 and officially began trading on the New York Stock Exchange with ticker symbol "P" on June 15, 2011 at a price of $16/share. This gave them a valuation of nearly $2.6 billion.

As of IPO, Pandora had 800,000 tracks from 80,000 artists in its library, and 80 million users. In 2012, Pandora was reported to have over 150 million users. During its 2011 fiscal year, Pandora reported $138 million in revenue with a $1.8 million net loss, excluding the cost of a special dividend associated with the IPO.

Pandora advertising elements, including in-stream audio ads (from concept to distribution), banner ads on smart phones, internet devices and computers, click-to-call banner ads for direct response campaigns, complete and comprehensive tracking, and much more. Client buys Pandora ads for two main reasons: Targetability and interactive ads. It's unlike a regular radio ad buy.

Hulu

Hulu is a website and over-the-top (OTT) subscription service offering ad-supported on-demand streaming video of TV shows, movies, webisodes and other new media, trailers, clips, and behind-the-scenes footage from NBC, Fox, ABC, TBS, and many other networks and studios. Hulu videos are currently offered only to users in the United States, its overseas territories and Japan.

Hulu provides video in Flash Video format, including many films and shows that are available in 288p, 360p, 480p, and in some cases, 720p or 1080p HD. Hulu also provides web syndication services for other websites including AOL, MSN, MySpace, Facebook, Yahoo!, and Comcast's xfinityTV. Hulu is a joint venture of NBCUniversal Television Group (Comcast), Fox Broadcasting Company and Disney/ABC Television Group (The Walt Disney Company.

Hulu Plus, a monthly subscription service, was launched on November 17, 2010. Like the free version of Hulu, the video available on Hulu Plus also contains commercials. However, it offers subscribers an expanded content library in the form of full seasons and more episodes of shows already available through Hulu. Hulu Plus is available on a wide range of platforms, including: Apple TV, Blue-Ray players, TiVo DVR boxes, Smart TV's, Smartphones, Tablets, all gaming consoles (Wii, PS3, XBOX), and Roku Streaming Player. A little more than a year after the launch of Hulu Plus, the number of paying subscribers reached 1.5 million.

Features

Hulu distributes video on its own website and syndicates its hosting to other sites, and allows users to embed Hulu clips on their websites. In addition to NBC, ABC and Fox programs and movies, Hulu carries shows from networks such as Current TV, ION Television, USA Network, Bravo, Fuel TV, FX, NFL Network, Speed, Big Ten Network, Syfy, Style, Sundance, E!, G4, Versus, A&E, Oxygen and online comedy sources such as Onion News Network. Hulu retains between thirty and fifty percent of advertising revenue generated by the shows it distributes.

Hulu is building on its roster of original programs to persuade its marketers to make bigger commitments and attract new ones. The site is offering ad buyers the ability to target viewers by demographics, geography and by viewing device. Earlier this week Hulu said advertisers would only pay for ads that had been viewed start to finish.

Advertising

Like the broadcast television business, Hulu depends on revenue from its sponsors so it can provide video free of charge. Of course, everything comes with a price: Hulu loads advertisements from its sponsors every time you request a video. These ads include short video spots that run before and after the video, and during the video's natural commercial breaks. Each sponsor also contributes ad banners and video overlays, which are displayed with the video and linked to the sponsor's site. Hulu offers its sponsors a complete list of these and other ad formats in its media kit.

Hulu splits its ad revenue with the site's content providers and distribution partners. While the company doesn't disclose its current revenue distribution percentages, some reports have stated that Hulu gives about 70 percent of its ad revenue to the content provider and about 10 percent to the distribution partner if the video was shown on the partner Website. Critics of Hulu's business model have scrutinized the company's choice to keep as little as 20 percent of its revenue, but Hulu continues to partner with more content providers and enjoy a steady increase in sponsors and viewers.

Spotify

Spotify is a commercial music streaming service providing Digital Rights Management-protected content from record labels including Sony, EMI, Warner Music Group and Universal. Launched in October 2008, Spotify has reached 24 million total users, 6 million of who pay a monthly subscription fee that varies based on locale. The system is currently available using Microsoft Windows, OS X, Linux, iOS, Android, BlackBerry, Windows Mobile, Windows Phone, S60 (Symbian), webOS, Samsung Smart TV, Squeezebox, Boxee, Sonos, WD TV, Roku, MeeGo, Telia Digital-tv, and TiVo.

Music can be browsed by artist, album, record label, genre or playlist as well as by direct searches. On computers, a link allows the listener to purchase selected material via partner retailers. A six-month free trial period is activated upon account registration or first login with a Facebook account, allowing the user to listen to an unlimited amount of music supported by visual and radio-style advertising. After the trial, Spotify has a listening limit of 10 hours per month, divided into 2.5 hour weekly portions (unused hours carry over). The only locations exempt from this rule are the United States, Hong Kong, Singapore, and Malaysia, where ad-supported unlimited streaming continues on Spotify Free after 6 months. An "Unlimited" subscription removes advertisements and time limits and a "Premium" subscription introduces extra features such as higher bitrates streaming, offline access to music and mobile app access. Users can try Spotify Premium for 48 hours by logging into Spotify Mobile for the first time, or get a 30-day trial for their first month.

Revenue Model

Spotify principally operates under a so-called 'Freemium' model: basic services are free and more advanced or additional features are offered at a premium. This is augmented by income from music purchases within the player. As of 2013 Spotify offered a $10 per month unlimited subscription, close to the Open Music Model (OMM) estimated economic equilibrium for the recording industry. Advertisements for non-paying users are 30 seconds ad units. The interval between advertisements is not constant. A monthly fee removes advertisements and streaming limits.

Spotify announced on 6 December 2012 that it had more than five million paying customers globally, including 1 million in the US Spotify also announced that it had over 20 million active users worldwide. By March 2013, Spotify had grown to six million paying customers globally and 24 million total active users.

Spotify isn't a copycat of existing digital music services. It throws in a few new groovy beats of its own, including tools that let you share playlists and songs immediately via social media sites like Facebook and Twitter. In short, Spotify is a lot like having a version of Apple iTunes software wherever you have an Internet connection, giving you access to the tune of roughly 15 million tracks. Spotify advocates say it's kind of like being able to play any song, anywhere -- for free. And that's actually the origin of the Spotify moniker, which helps you "spot" and "identify" songs you like.

Unlike many Internet radio services, which are solely Web-based, you actually have to download and install the Spotify program to your hard drive. Once you've accomplished this minor task, you're ready to plunge into what some people consider the technology that will completely change the way we organize and listen to music.

U Stream

Launched in 2007, Ustream.tv is an interactive web streaming platform that lets users broadcast their own channels on the Ustream network or on a third-party website such as MySpace or Facebook. The site began as a way to connect soldiers in remote locations with their families at home by allowing for live, synchronous viewing and presenter-to-audience interaction through chat and live commenting. Founders note that the site promotes "event-casting," not just the "life-casting" made famous by sites like Justin.tv, which streams events in a person's life 24 × 7. Ustream offers a platform for users to host events, promote their own shows, or set up interactive conversations with participants across the globe. Like many Web 2.0 tools, the site functions as a social network, encouraging users to customize their profiles, identify favorite shows, create broadcast schedules, cultivate followers, add bulletins, and communicate with other users. Viewers can also rate and review shows, bolstering their standing on the site's home page. Ustream offers a mix of live programming and archived shows, giving viewers an opportunity to search for older editions of just-watched shows.

In September 2008, more than 7 million watchers turned their browsers to Ustream to watch streaming coverage of the Republican National Convention in Minneapolis–Saint Paul, Minnesota. The site has become a frequent virtual stomping ground for candidates in the 2008 election season—from local politicians hosting press conferences to national candidates engaging in dialogue with voters. Musicians like the Plain White T's and James Blunt have played to live Ustream audiences, and Hollywood has used the site to offer live streaming of movie premieres and red-carpet events.

In July, Ustream reported that more than 410,000 users were streaming video—from high school graduations and weddings to amateur talk shows and how-to programs—averaging 15,000 unique shows each day. ***In the month of June, unique viewers passed the 10 million mark.*** Colleges and universities are beginning to log on, as professors take advantage of the site's streaming abilities to host classes online or promote their research interests through interactive shows and programming. Roanoke College and Meridian Community College offer live streamed athletic events, and other campuses let viewers tune in to watch prominent guest speakers or conference sessions.

How Does It Work?

Broadcasting on the Ustream network requires only an Internet connection and a webcam; membership on the site is free. Once registered, users simply enter basic information about their show, including the title, description, and any uploaded artwork, and click Start Broadcast to begin streaming. The feed is then live on the web. From the site, users can e-mail the broadcast URL to names in their address book or embed the URL in a Twitter stream. For savvy users, Ustream allows desktop screen sharing and visual overlays, such as picture-in-picture displays. From the Ustream home page, users can watch the site's Featured programs or those that are the Highest Rated, based on user feedback through a five-star rating system. Users can also search for content by keyword or by visiting the pages of the site's themed networks, including People, Religion, Technology, and The Zoo, which features live feeds of animals eating, sleeping, and playing. Once users begin watching a video stream, they can chat live with other participants or comment on the feed. They can also connect to sites like Digg and StumbleUpon through icons below the viewing window. Registered users can keep track of their favorite shows by clicking Follow on the show's main page, where the show will instantly show up in the My Feeds section of their profile.

YouTube

YouTube is a video-sharing website, created by three former PayPal employees in February 2005 and owned by Google since late 2006, on which users can upload, view and share videos. The company is based in San Bruno, California, and uses Adobe Flash Video and HTML5 technology to display a wide variety of user-generated video content, including movie clips, TV clips, and music videos, as well as amateur content such as video blogging, short original videos, and educational videos. Most of the content on YouTube has been uploaded by individuals, although media corporations including CBS, the BBC, VEVO, Hulu, and other organizations offer some of their material via the site, as part of the YouTube partnership program. Unregistered users can watch videos, while registered users can upload an unlimited number of videos. Videos considered to contain potentially offensive content are available only to registered users at least 18 years old. YouTube, LLC was bought by Google for $1.65 billion in November 2006 and now operates as a Google subsidiary. In 2009, 350 million people visit the site every month sharing videos. In May 2010, YouTube announced that it has surpassed the two billion videos viewed daily. On October 28, 2010, all YouTube 'channels' reached one billion total subscribers (not views, but subscribers to these channels).

YouTube Layout

First-time visitors to YouTube might feel a little overwhelmed when they arrive at the main Web page. The page shows thumbnails of videos currently being watched by other users, a list of promoted videos, a larger video window on the right featuring a sponsored video and a list of featured videos farther down the page. There's also a search field that visitors can use to look for videos about a particular person or subject. The main page has tabbed links to three other important YouTube sections: videos, categories and channels. Each tab lets you search for videos in different ways: ***1. Video Tab*** takes you to a page where you can browse videos based on various statistics ***2. Categories Tab*** arranges videos into broad subject categories, like autos and vehicles or entertainment ***3. Channels Tab*** divides videos into sections based on the type of member who uploaded the videos. In other words, you can search for videos uploaded by comedians, directors, gurus, musicians, nonprofits, partners and sponsors.

Social Impact

While other video hosting websites had been launched before YouTube in 2005, YouTube invented a brand new concept unlike any other competitor. Up until that point, it was always the people who owned the website who would provide content, YouTube allowed the shift to 'user generated content.' In December 2006, Time magazine wrote: "YouTube is to video browsing what a Wal-Mart Supercenter is to shopping: everything is there, and all you have to do is walk in the door." An early example of the social impact of YouTube was the success of "The Bus Uncle" video in 2006, "Charlie Bit My Finger" in 2007 (viral video that holds the record for the most views for non-music YouTube video and "Gangnam Style" in 2012 (record for views). When we think and talk of videos or content "going viral" this is due to YouTube.

Revenue Sources

The vast majorities of videos on YouTube are free to view and supported by advertising. In May 2007, YouTube launched its Partner Program, a system based on AdSense which allows the uploader of the video to share the revenue produced by advertising on the site. YouTube typically takes 45 percent of the advertising revenue from videos in the Partner Program, with 55 percent going to the uploader. There are over a million members of the YouTube Partner Program. In May 2013, YouTube introduced a trial scheme of 53 subscription channels with prices ranging from $0.99 to $6.99 a month. The move was seen as an attempt to compete with other providers of online subscription services such as Netflix and Hulu.

Facebook

Facebook is an online social networking service. Its name stems from the colloquial name for the book given to students at the start of the academic year by some American university administrations to help students get to know each other. Facebook was founded in February 2004 by Mark Zuckerberg with his college roommates and fellow Harvard University students Eduardo Saverin, Andrew McCollum, Dustin Moskovitz and Chris Hughes. The website's membership was initially limited by the founders to Harvard students, but was expanded to other colleges in the Boston area, the Ivy League, and Stanford University. It gradually added support for students at various other universities before opening to high school students, and eventually to anyone aged 13 and over.

Users must register before using the site, after which they may create a personal profile, add other users as friends, exchange messages, and receive automatic notifications when they update their profile. Additionally, users may join common-interest user groups, organized by workplace, school or college, or other characteristics, and categorize their friends into lists such as "People from Work" or "Close Friends". As of September 2012, Facebook has over one billion active users, of which 8.7% are fake. According to a May 2011 Consumer Reports survey, there are 7.5 million children under 13 with accounts and 5 million under 10, violating the site's terms of service. Facebook (as of 2012) has about 180 petabytes of data a year and grows by over half a petabyte every 24 hours.

By January 2009, Facebook ranked as the most used social networking service by worldwide monthly active users. Entertainment Weekly included the site on its end-of-the-decade "best-of" list, saying, "How on earth did we stalk our exes, remember our co-workers' birthdays, bug our friends, and play a rousing game of Scrabulous before Facebook?" Facebook eventually filed for an initial public offering in 2010 and began selling stock to the public on May 18, 2012 (NASDAQ). Based on its 2012 income of $5.1 Billion, Facebook joined the Fortune 500 list for the first time, being placed at position of 462 on the list published in May 2013.

Revenue Model

Most of Facebook's revenue comes from advertising *(revenues estimated, in millions):*

Year	Revenue	Growth
2006	$52	
2007	$150	188%
2008	$280	87%
2009	$775	177%
2010	$2,000	158%
2011	$4,270	114%

Facebook generally has a lower click through rate (CTR) for advertisements than most major Web sites. According to BusinessWeek.com, banner advertisements on Facebook have generally received one-fifth the number of clicks compared to those on the Web as a whole. For example, while Google users click on the first advertisement for search results an average of 8% of the time (80,000 clicks for every one million searches), Facebook's users click on advertisements an average of 0.04% of the time (400 clicks for every one million pages). The cause of Facebook's low CTR has been attributed to younger users enabling ad blocking software and being better at ignoring advertising messages, as well as the site being used more for the purpose of social communication as opposed to viewing content. However, a study found that, **for video advertisements on Facebook, over 40% of users who viewed the videos viewed the entire video, while the industry average was 25% for in-banner video ads**.

Twitter

Twitter is an online social networking service and micro blogging service that enables its users to send and read text-based messages of up to 140 characters, known as "tweets". Twitter was created in March 2006 by Jack Dorsey and by July, the social networking site was launched. The service rapidly gained worldwide popularity, with over 500 million registered users as of 2012, generating over 340 million tweets daily and handling over 1.6 billion search queries per day. Since its launch, Twitter has become one of the ten most visited websites on the Internet, and has been described as "the SMS of the Internet." Unregistered users can read tweets, while registered users can post tweets through the website interface, SMS, or a range of apps for mobile devices. Twitter Inc. is based in San Francisco, with additional servers and offices in New York City, Boston, and San Antonio.

Many social networking Web sites have lots of bells and whistles. Sites like Facebook & LinkedIn let users build profiles, upload pictures, incorporate multimedia, keep a blog and integrate useful or bizarre programs into homepages. But Twitter is the company that continues to explode with growth yet is the simplest service available in the social media landscape.

Functions

So what does Twitter do? When you sign up with Twitter, you can use the service to post and receive messages to a network of contacts. Instead of sending a dozen e-mails or text messages, you send one message to your Twitter account, and the service distributes it to all your friends. Members use Twitter to organize impromptu gatherings, carry on a group conversation or just send a quick update to let people know what's going on. Registered users can enter their own text messages with a maximum of 140 characters. These text messages are displayed including the people that follow this user. They are also calling without being logged onto Twitter and/or to follow the registered user. The editor of the news available on the website of the service with a picture as the sole author its contents. The posts are often from the first-person perspective written. This micro-blog is a writer and reader for easy-to-use real-time medium for the representation of aspects of one's life and opinions on specific topics. Comments or discussion the reader to a post are possible. Thus, both the medium for the exchange of information, ideas and experiences as well as other forms of communication are used. The act of writing on Twitter is called a **"tweet."** Again, simply put a Tweet is a message sent on Twitter. (To send or receive a Tweet, you have to create a free account with Twitter).

Revenue Model

eMarketer estimates Twitter will earn $582.8 million in global ad revenue this year, $950 million next year, and $1.33 billion in 2015. According to its boosted forecast, more than half of Twitter's ad revenue -- about 53 percent -- will come from mobile advertising this year, up from virtually no ad revenue from mobile in 2011. And mobile is where Twitter will see the most growth over the next two years, eMarketer said. By 2015, more than 60 percent of Twitter's ad revenue should come from mobile. The launch of Twitter's Ads API also will contribute to growth this year and allows Twitter to deliver ads seamlessly across multiple devices at high volume. eMarketer estimates Twitter will earn $308.9 million in mobile ad revenue in 2013, which is more than the company earned in total, from any ad type, in 2012. That year it made $138.4 million from mobile ads.

Foursquare

Foursquare is a location-based social network, which mainly works through software for mobile phones & Smartphones. The service it utilizes the GPS capability of the device to determine the current location of the user. Users can then "check in" at locations, either via the website of Foursquare, by SMS , or with device-specific programs, which among other things for Android ,BlackBerry , iOS , Palm , PlayStation Vita , Symbian , webOS , bada and Windows phone are available. Foursquare is a web and mobile-phone app that allows registered users to connect with friends and announce their current location. For each check-in points are awarded, and the user can its current location on Twitter and Facebook post. Users can also create a personal "to-do list" or public exchange tips about sites with other users, which is for example used to recommendation of restaurants.

Foursquare Features

The first time you use Foursquare to check in to a location you'll earn a Newbie badge. This is just one of several badges in Foursquare. It's not hard to figure out how to earn some of the badges. For example, visit the same spot several times in a month and you'll earn the Local badge. But others may be more of a challenge. The founders plan to add more badges to the service over time and solicit user suggestions. One of the ways you earn badges is by visiting locations that have been tagged with specific traits. Let's say you visit several places in your town that are known to be popular with fraternity members -- you may earn yourself the Animal House badge. The founders depend upon the input of the community to tag locations accurately. It's possible that a location's features could change over time -- if it does you may earn a different badge after a few visits.

Users can also submit tips and notes about locations. Let's say you've decided to visit your favorite burger joint. You happen to know their mushroom bacon burger is amazing. You can check in using Foursquare and add in a tip to let others know about your favorite burger.

Since users submit the tips, you could end up seeing all sorts of information about different locations. It doesn't all have to be positive either. If you think the music a certain club plays is six months behind the times, you can pop into Foursquare and share your thoughts. The service has the potential to be both a social networking application and a review application.

The founders of Foursquare hope to form partnerships with various restaurants, clubs and other sites to offer special benefits to Foursquare members. For example, a restaurant might offer up a free appetizer to its Foursquare mayor. One potential obstacle for this approach is that it would be easy to game the system. While the Foursquare app on the iPhone and Android platforms can use the GPS receiver in phones to search for nearby locations, you don't have to rely on GPS to check in. You could be sitting at home while remotely checking in to locations around the city. If restaurants and other companies hand out real rewards to Foursquare members, you can expect some people will cheat.

Revenue Model

Foursquare's revenue, which was a troubling $2 million last year, is growing as well. The company is expected to generate $10-15 million this year. It has five advertising products, all of which are working evenly. Advertisers seem pleased with their Foursquare results, and Foursquare says its sales people have closed multiple nine-figure campaigns. Growth on the app is still stalled at about 35 million registered users and 6 billion “check-ins.” Foursquare's sees a whopping 50 million people visit its website every month. 1.5 million new-users are registering for the app every month.

PayPal

The idea behind PayPal is simple: use encryption software to allow people to make financial transfers between computers. That simple idea has turned into one of the world's primary methods of online payment. Despite its occasionally troubled history, including fraud, lawsuits and zealous government regulators, PayPal now boasts over 100 million active accounts in 190 markets worldwide.

PayPal is an online payment service that allows individuals and businesses to transfer funds electronically. Here are some of the things you might use PayPal for: **1)** Send or receive payments for online auctions at eBay and other Web sites **2)** Purchase or sell goods and services **3)** Make or receive donations **4)** Exchange cash with someone.

You can send funds to anyone with an e-mail address, whether or not they have a PayPal account. To receive the funds, though, the recipient must have a PayPal account associated with that e-mail address. Basic PayPal accounts are free, and many financial transactions are free as well, including all purchases from merchants that accept payments using PayPal. If you have a PayPal account, you can add and withdraw funds in many different ways. You can associate your account with bank accounts or credit cards for more direct transactions, including adding and withdrawing money. Other withdrawal options include using a PayPal debit card to make purchases or get cash from an ATM, or requesting a check in the mail.

PayPal Infrastructure

From a buyer's perspective, PayPal changed the way people exchange money online. Behind the scenes, though, it didn't fundamentally change the way merchants interact with banks and credit card companies. PayPal just acts as a middleman. To understand what that means, consider that credit and debit card transactions travel on several different networks. When a merchant accepts a charge from a card, that merchant pays an interchange, which is a fee of about 10 cents, plus approximately 2 percent of the transaction amount. The interchange is made up of a variety of smaller fees paid to all the different companies that have a part in the transaction: the merchant's bank, the credit card association and the company that issued the card. If someone pays by check, a different network is used, one that costs the merchant less but moves more slowly.

What part does PayPal play in all this? Both buyer and seller deal with PayPal instead of each other. Both sides have provided their bank account or credit card information to PayPal. PayPal, in turn, handles all the transactions with various banks and credit card companies, and pays the interchange.

Revenue Model

PayPal makes its own money in two ways. The first is the fees they charge to a payment's recipients. Though most transactions are free for the average user, merchants pay a fee on transactions. PayPal also collects interest on money left in PayPal accounts. All the money held in PayPal accounts is placed into one or more interest-earning bank accounts. An account holder doesn't receive any of the interest gained on the money while it sits in a PayPal account.

LinkedIn

LinkedIn is a social networking platform for maintaining existing business contacts and to establish new connections. It has over 225 million registered users in more than 200 countries (as of June 2013), currently the largest platform of its kind. As an online social network for business professionals, it's different than other social networking sites like MySpace and Facebook because it's designed specifically for professional networking -- finding a job, discovering sales leads, connecting with potential business partners -- rather than simply making friends or sharing media like photos, videos and music.

Features

One purpose of the site is to allow registered users to maintain a list of contact details of people with whom they have some level of relationship, called Connections. Users can invite anyone (whether a site user or not) to become a connection. This list of connections can then be used in a number of ways:

- A contact network is built up consisting of their direct connections, the connections of each of their connections (2nd degree connections) and also the connections of second-degree connections (3rd degree connections). This can be used to gain an introduction to someone a person wishes to know through a mutual contact.
- It can then be used to find jobs, people and business opportunities recommended within a contact network.
- Employers can list jobs and search for potential candidates.
- Job seekers can review the profile of hiring managers and discover which of their existing contacts can introduce them.
- Users can post their own photos and view photos of others to aid in identification.
- Users can now follow different companies and can get notification about the new joining and offers available.
- Users can save (i.e. bookmark) jobs that they would like to apply for.

The "gated-access approach" (where contact with any professional requires either an existing relationship or the intervention of a contact of theirs) is intended to build trust among the service's users.

Revenue Model

LinkedIn also operates using a different business model than most social networking sites. LinkedIn makes money in two basic ways. First, the site charges users for certain services. If you want to send more than five introductions, you have to upgrade to one of the premium accounts (Personal Plus, Business or Pro). Same goes for sending InMail or receiving OpenLink messages. Posting job openings costs money on LinkedIn, as do other site services like reference searches and expedited customer service. But the way LinkedIn really makes the big bucks is through LinkedIn Corporate Solutions, a powerful tool for recruiters and corporate headhunters. When a registered LinkedIn user adds his professional and educational experience to his profile page, he's adding his personal information to the ever-expanding LinkedIn professional database. For a steep annual subscription fee (as high as $100,000 to $250,000 for some companies), LinkedIn Corporate Solutions supplies recruiters and headhunters with enhanced search tools and management software to find the most qualified "passive candidate."

LinkedIn estimates that more than 200,000 of its members are professional recruiters.

Rentrak

Rentrak is a global media measurement and research company serving the entertainment industry. Rentrak is headquartered in Portland, Oregon, United States, with additional U.S. and international offices and employs more than 450 people worldwide.

Rentrak has developed metrics to be used as database currencies for the evaluation and selling of entertainment content across many platforms including box office, multi-screen television, and home video. The company tracks viewing behavior from more than 20 million televisions across all 210 markets. The company is the only company in the industry to provide video on demand measurement, obtained from set-top box data, and is also the sole provider of real-time box office ticket sales intelligence worldwide. Rentrak publishes weekly entertainment charts ranking the top ten in box office, video on demand, DVD sales and rentals, video game sales and TV engagement.

Rentrak began as a nationwide video chain named National Video, which was founded and incorporated in 1977.National Video founder, Ron Berger, developed what is now known as the pay-per-transaction (PPT) system, which allows studios and retailers to lease movie titles instead of purchasing them. The company went public in 1986.
In 1988, facing competition from rival Blockbuster Video, Berger sold the National Video franchise chain and renamed the company Rentrak. In December 2009, Rentrak acquired Nielsen EDI, a leader in box office measurement, for $15 million. The deal made Rentrak the sole provider of worldwide box office ticket sales information for studios and industry analysts. As of Nov 14, 2011, the company passed the 100-client station mark for its local television measurement service and now has almost 200 station clients, across a multitude of station groups and markets, using its StationView Essentials product for daily media measurement.

Mark Cuban, Internet billionaire, owner of the NBA's Dallas Mavericks and the HDNet networks, purchased 120,000 more Rentrak shares on Aug 22, 2011 and holds an 8.7 percent ownership stake in the company.

TV Everywhere Era

The entertainment, television and advertising industries are undergoing fundamental changes with respect to how they manage their businesses. As the leader in multi-screen reporting and analytics, Rentrak's cutting-edge measurement technology is in the middle of this change, delivering precise reporting of the intelligence needed to help move the industry forward. By establishing tracking and analytical systems that were never before available, Rentrak has become the measurement currency used by movie studios; cable, telco and satellite TV; local television stations; national networks; advertisers; advertising agencies and video on demand content providers to more profitably grow their operations and more effectively compete in this increasingly complex environment.

With the ability to merge television viewing and actual consumer behavior information across all media distribution platforms, only Rentrak is able to provide the stable and robust audience measurement services on which movie, television and advertising professionals have come to rely to better manage their business goals and more precisely target advertising.

From our roots in home entertainment to our leadership role in video on demand measurement to our position as the global box office authority, Rentrak is the entertainment industry's premier source for knowing — every day, every minute, everywhere — who is going to the movies and who is watching TV. As the media and entertainment advertising sectors continue to evolve, Rentrak will be there, **precisely measuring movies and TV everywhere the consumer is watching**.

ComScore

comScore is an American Internet analytics company providing marketing data and analytics to many of the world's largest enterprises, agencies, and publishers. The company continuously monitors and gathers information on the Web browsing, habits, purchasing behaviors and social interactions of millions of online users. comScore then uses the information to help clients deliver highly targeted marketing messages and advertisements to their core audiences. comScore was launched in 1999 and is based in Reston, Va.

comScore maintains a group of users who have monitoring software (with brands including PermissionResearch, OpinionSquare and VoiceFive Networks) installed on their computers. In exchange for joining the comScore research panels, users are presented with various benefits, including computer security software, Internet data storage, virus scanning and chances to win cash or prizes.

comScore is up-front about collecting user data and the software's ability to track all of a user's internet traffic, including normally secure (https://) connections used to communicate banking and other confidential information.

comScore estimates that two million users are part of the monitoring program. However, self-selected populations, no matter how large, may not be representative of the population as a whole. To obtain the most accurate data, comScore adjusts the statistics using weights to make sure that each population segment is adequately represented. To calculate these weights, comScore regularly recruits panelists using random digit dialing and other offline recruiting methods to accurately determine how many users are online, aggregated by geography, income and age. Correcting the comScore data requires having accurate demographics about the larger pool of users. However, some comScore users are recruited without being asked to give demographic information and, in other cases, users may not be truthful about their demographics. To ensure the accuracy of the data, comScore verifies its users' demographics during the course of measuring statistical data.

The corrected data is used to generate reports on topics ranging from web traffic to video streaming activity and consumer buying power.

Competitors and Alliances

Competitors in internet market research include AdGooroo, Alexa, Nielsen Online, Hitwise, Quantcast, Gemius, SimilarWeb, and Compete, a TNS Media company.

In February 2011, The Coalition for Innovative Media Measurement (CIMM) and comScore announced they were working together to measure three-screen users and their behavior with content and advertising across television, Internet, and mobile.

Big Data

comScore's footprint has measurements from 172 Countries; 43 markets reported. With well over 1.5 Trillion interactions captured monthly; comScore has a footprint equal to almost 40% of the monthly page views of the entire internet.

DoubleClick

DoubleClick is one of the largest providers of online marketing solutions, headquartered in New York City. DoubleClick is a subsidiary of Google which develops and provides Internet ad serving services. Its clients include agencies, marketers (Universal McCann, AKQA etc.) and publishers who serve customers like Microsoft, General Motors, Coca-Cola, Motorola, L'Oréal, Palm, Inc., Apple Inc., Visa USA, Nike, Carlsberg among others. DoubleClick's headquarters is in New York City, United States.

DoubleClick was founded in 1995 by Kevin O'Connor and Dwight Merriman. It was formerly listed as "DCLK" on the NASDAQ, and was purchased by private equity firms Hellman & Friedman and JMI Equity in July 2005. In March 2008, Google acquired DoubleClick for US$3.1 billion. Unlike many other dot-com companies, it survived the bursting of the dot-com bubble. Today, it focuses on uploading ads and reporting their performance.

Products

DoubleClick offers technology products and services that are sold primarily to advertising agencies and media companies to allow clients to traffic, target, deliver, and report on their interactive advertising campaigns. The company's main product line is formally known as *DART*, which is designed for advertisers and publishers.

DART automates the administration effort in the ad buying cycle for advertisers (DoubleClick for Advertisers, or DFA) and the management of ad inventory for publishers (DoubleClick for Publishers, or DFP). It is intended to increase the purchasing efficiency of advertisers and to minimize unsold inventory for publishers. DART Enterprise is the rebranded version of NetGravity AdServer, which DoubleClick acquired with its purchase of NetGravity in 1999. Unlike the DFA and DFP products which are both Software as a Service SaaS products, DART Enterprise is a standalone product running on Linux.

In 2004, DoubleClick acquired Performics. Performics offers affiliate marketing, search engine optimization, and search engine marketing solutions. The marketing solutions were integrated into the core DART system and rebranded DART search. DoubleClick Advertising Exchange (released Q2 2007) attempts to go even further by connecting both media buyers and sellers on an exchange much like a traditional stock exchange.

Data Collection

DoubleClick targets along various criteria. Targeting can be accomplished using IP addresses, business rules set by the client or by reference to information about users stored within cookies on their machines. Some of the types of information collected are:

- Web browser
- Operating System
- ISP
- Bandwidth
- Time of day

In addition, the cookie information may be used to target ads based on the number of times the user has been exposed to any given message. This is known as "frequency capping".

Nielsen

The Nielsen Company is a publicly held global information and media company, and is one of the world's leading suppliers of marketing information (Nielsen Consumer, formerly ACNielsen), media information and TV ratings (Nielsen Media Research), online intelligence (Nielsen Online) and mobile measurement (Nielsen Mobile). Nielsen is active in over 100 countries, and employs some 36,000 people worldwide. On January 25, 2011 the company issued an IPO raising $1.6 billion in the biggest private equity-backed U.S. IPO since 2006.

While the Nielsen brand is most often associated with television ratings, those TV ratings services comprise approx. one-quarter of the company's business and revenues. After substantial work to simplify the company over the last several years, Nielsen today aligns their business into two divisions: What Consumers Buy and What Consumers Watch

What Consumers Buy

Nielsen's Buy division (approx. two-thirds of global revenues) primarily helps packaged goods companies and retailers (and Wall Street analysts) understand what consumers are buying in terms of categories, brands and products. For example, it is Nielsen's data that measures how much Diet Coke vs. Diet Pepsi is sold in stores, or how much Crest versus Colgate toothpaste is sold. They accomplish this by purchasing and analyzing huge amounts of retail data that measures what is being sold in the store, and they combine it with household panel data that captures everything that is brought into the home. They also can provide insights into how changes in product offerings, pricing or marketing would change sales. Major clients include The Coca-Cola Company, Nestle, Procter & Gamble, Unilever Group and Wal-Mart.

What Consumers Watch

Nielsen's Watch division (approx. one-third of global revenues) primarily measures what consumers are watching on all of the screens in their life: TV, computer, mobile/smartphones, tablets, etc. The company measures consumption of programming and advertising across all distribution points. Nielsen's ratings are used by advertisers and networks to shape the buying and selling of advertising. Major clients include CBS, NBCU, News Corp. and The Walt Disney Company.

History

The company began measuring television audiences in 1950, at a time when the medium was just getting off the ground. Just as with radio, a sampling of homes across the U.S. was used to develop ratings. This information was collected on a device that was attached to a television that recorded what was being watched. In 1953, the company began sending out diaries to a smaller sample of homes ("Nielsen families") within the survey to have them record what they had watched. This data was put together with information from the devices. This combination of data allowed the company to statistically estimate the number of Americans watching TV and the demographic breakdown of viewers. This became an important tool for advertisers and networks. In the 1980s, the company launched a new measurement device known as the "people meter". The device resembles a remote control with buttons for each individual family member and extras for guests. Viewers push a button to signify when they are in the room and push it again when they leave, even if the TV is still on. This form of measurement was intended to provide a more accurate picture of who was watching and when. ***In July 2008, Nielsen released the first in a series of quarterly reports, detailing video and TV usage across the 'three screens' – Television, Internet and Mobile devices***. The A2/M2 Three Screen Report also includes trends in time-shifted viewing behavior and its relationship to online video viewing, a demographic breakdown of mobile video viewers and DVR penetration.

INTERACTIVE TERMS

Marketing or advertising terms can catch us all off guard at times. Whether it's a new acronym, new medium or just simple confusion; often times we fall behind on what many these advertising vehicles represent. Knowing what these terms mean and more importantly how they can be positioned both for and against, will sometimes be the difference between gaining a clients trust as their media consultant. It can be tough to stay ahead of these terms and new platforms, but it will also be the difference maker in gaining credibility with your clientele.

Search Engine Optimization (SEO)

Search engine optimization (SEO) is the process of affecting the visibility of a website or a web page in a search engine's "natural" or un-paid ("organic") search results. In general, the earlier (or higher ranked on the search results page), and more frequently a site appears in the search results list, the more visitors it will receive from the search engine's users. SEO may target different kinds of search, including image search, local search, video search, academic search, news search and industry-specific vertical search engines.

As an Internet marketing strategy, SEO considers how search engines work, what people search for, the actual search terms or keywords typed into search engines and which search engines are preferred by their targeted audience. Optimizing a website may involve editing its content, HTML and associated coding to both increase its relevance to specific keywords and to remove barriers to the indexing activities of search engines. Promoting a site to increase the number of backlinks, or inbound links, is another SEO tactic.

Methods

Getting indexed

The leading search engines, such as Google, Bing and Yahoo!, use crawlers to find pages for their algorithmic search results. Pages that are linked from other search engine indexed pages do not need to be submitted because they are found automatically. Some search engines, notably Yahoo!, operate a paid submission service that guarantee crawling for either a set fee or cost per click. Such programs usually guarantee inclusion in the database, but do not guarantee specific ranking within the search results. Search engine crawlers may look at a number of different factors when crawling a site. Not every page is indexed by the search engines. Distance of pages from the root directory of a site may also be a factor in whether or not pages get crawled.

Preventing Crawling

To avoid undesirable content in the search indexes, webmasters can instruct spiders not to crawl certain files or directories through the standard robots.txt file in the root directory of the domain. Additionally, a page can be explicitly excluded from a search engine's database by using a Meta tag specific to robots. Pages typically prevented from being crawled include login specific pages such as shopping carts and user-specific content such as search results from internal searches.

Increasing Prominence

A variety of methods can increase the prominence of a webpage within the search results. Cross linking between pages of the same website to provide more links to most important pages may improve its visibility. Writing content that includes frequently searched keyword phrase, so as to be relevant to a wide variety of search queries will tend to increase traffic. Updating content so as to keep search engines crawling back frequently can give additional weight to a site. Adding relevant keywords to a web page's meta data, including the title tag and meta description, will tend to improve the relevancy of a site's search listings, thus increasing traffic. URL normalization of web pages accessible via multiple URLs, using the canonical link element or via 301 redirects can help make sure links to different versions of the URL all count towards the page's link popularity score.

As a Marketing Strategy

SEO is not an appropriate strategy for every website, and other Internet marketing strategies can be more effective like paid advertising through PPC campaigns, depending on the site operator's goals. A successful Internet marketing campaign may also depend upon building high quality web pages to engage and persuade, setting up analytics programs to enable site owners to measure results, and improving a site's conversion rate. SEO may generate an adequate return on investment. However, search engines are not paid for organic search traffic, their algorithms change, and there are no guarantees of continued referrals. Due to this lack of guarantees and certainty, a business that relies heavily on search engine traffic can suffer major losses if the search engines stop sending visitors. Search engines can change their algorithms, impacting a website's placement, possibly resulting in a serious loss of traffic.

Search Engine Marketing (SEM)

Search engine marketing (SEM) is a form of Internet marketing that involves the promotion of websites by increasing their visibility in search engine results pages (SERPs) through optimization and advertising. SEM may use search engine optimization (SEO), which adjusts or rewrites website content to achieve a higher ranking in search engine results pages or use pay per click listings.

Market

In 2012, North American advertisers spent $19.5 billion on search engine marketing. The largest SEM vendors were Google AdWords and Bing Ads. As of 2006, SEM was growing much faster than traditional advertising and even other channels of online marketing. Because of the complex technology, a secondary 'search marketing agency' market has evolved. Some marketers have difficulty understanding the intricacies of search engine marketing and choose to rely on third party agencies to manage their search marketing.

SEM History

As the number of sites on the Web increased in the mid-to-late 90s, search engines started appearing to help people find information quickly. Search engines developed business models to finance their services, such as pay per click programs. Google began to offer advertisements on search results pages in 2000 through the Google AdWords program. By 2007, pay-per-click programs proved to be primary money-makers for search engines. In a market dominated by Google, in 2009 Yahoo! and Microsoft announced the intention to forge an alliance. The Yahoo! & Microsoft Search Alliance eventually received approval from regulators in the US and Europe in February 2010.

Methods & Metrics

There are 3 categories of methods and metrics used to optimize websites through search engine marketing.

1. **Keyword Research and Analysis** involves three "steps": ensuring the site can be indexed in the search engines, finding the most relevant and popular keywords for the site and its products, and using those keywords on the site in a way that will generate and convert traffic.
2. **Website Saturation and Popularity**, or how much presence a website has on search engines, can be analyzed through the number of pages of the site that are indexed on search engines (saturation) and how many backlinks the site has (popularity). It requires pages to contain keywords people are looking for and ensure that they rank high enough in search engine rankings.
3. **Back-End Tools**, including Web analytic tools and HTML validators, provide data on a website and its visitors and allow the success of a website to be measured. They range from simple traffic counters to tools that work with log files and to more sophisticated tools that are based on page tagging.

Comparison with SEO

SEM is the wider discipline that incorporates SEO. SEM includes both paid search results (Google Adwords) and organic search results (SEO). SEM uses paid advertising with AdWords or Bing Ads, pay per click (particularly beneficial for local companies as it enables potential consumers to contact a company directly with one click), article writing & advertising. SEM and SEO both need to be monitored and updated frequently to reflect evolving best practices. In some contexts, the term **SEM is used exclusively to mean pay per click advertising, particularly in the commercial advertising and marketing communities which have a vested interest in this narrow definition**. Such usage excludes the wider search marketing community that is engaged in other forms of SEM such as search engine optimization and search retargeting.

Dynamic Ad Insertion

Dynamic Ad Insertion (DAI) enhances advertising on the On Demand platform, allowing ads to be dynamically inserted into a VOD program at the beginning and the end of program segments. DAI is the ability to insert household specific advertising messages within a VOD session while the VOD session is being streamed in real-time. Therefore a more relevant advertising spot is served to the viewer based on the specific content, location, demographics and household preferences and across multiple platforms.

• DAI currently available in 17.4M homes nationwide
• Targeting by day-part, genre, rating and more
• Pre, Mid and post Roll opportunities

With DAI – Ads are separated from the asset and inserted "on the fly" at the ad trigger – like web video ads. Dynamic ad insertion offers clients the opportunity to reach a highly engaged audience, with more accuracy and efficiencies. Additional benefits are:

- Increased value of an ad spot
- Ad campaigns can be more flexible
- Ads can be triggered by various criteria
- Ad Maps largely driven by length of asset
- Content owners can potentially blend pre-stitched and dynamic ad placements within the same content until scale is achieved across cable operators

On Demand programming is a key way to reach today's consumers and an important part of an advertiser's marketing mix. This capability helps make the service more advertiser-friendly, giving clients' greater flexibility to ensure their ads remain timely and relevant.

The major player in this technology is Comcast & NBCU (owned by Comcast). Content from USA Network, E!, Syfy, Bravo Media and Oxygen Media that airs On Demand on Comcast Cable systems was part of their initial rollout in 2012, which initially focused on advertisements that ran prior to and after a show (pre-roll and post-roll ads). Early in 2013, this opened up to include dynamic ad insertion for advertisements throughout the show (mid-roll ads).

Traditionally, ads are inserted manually into On Demand programming and remain in place throughout a show's full window of availability. Technology from Black Arrow's Advanced Advertising System allows ads to be easily changed or revised when necessary, allowing clients to more effectively target their marketing messages. Comcast will make this capability available to other programming networks on its systems in coordination with Canoe Ventures, which will also enable this capability to a broader footprint covering multiple operators by early 2012.

"With more than 20 billion views On Demand since we launched the service in 2003, and an average of 350 million views per month, the service is a proven platform to reach consumers," said Marcien Jenckes, SVP and General Manager of Video Services, Comcast. "Enabling dynamic ad insertion will create more value for advertisers, content owners and Comcast, and allow us to further monetize the VOD platform while presenting more relevant advertising to our customers."

Ad Networks

An online advertising network or ad network is a company that connects advertisers to web sites that want to host advertisements. The key function of an ad network is aggregation of ad space supply from publishers and matching it with advertiser demand. The phrase "ad network" by itself is media-neutral in the sense that there can be a "Television Ad Network" or a "Print Ad Network", but is increasingly used to mean "online ad network" as the effect of aggregation of publisher ad space and sale to advertisers is most commonly seen in the online space. The fundamental difference between traditional media ad networks and online ad networks is that online ad networks use a central Ad server to deliver advertisements to consumers, which enables targeting, tracking and reporting of impressions in ways not possible with analog media alternatives.

The advertising network market is a large and growing market, with the top 20 companies earning about $2 billion in revenues during 2007. This represents around 13% of the total display advertising market, forecasted to grow to 18% by 2011. This growth has resulted in many new players in the market, and has encouraged acquisitions of ad networks by large companies entering the market. Ad networks are primarily involved in selling space for online ads to appear. This online advertising inventory comes in many different forms, including space on websites, in RSS feeds, on blogs, in instant messaging applications, in adware, in e-mails, and on other sources. The dominant form of inventory continues to be 3rd party websites, who work with advertising networks for either a fee or a share of the ad revenues. Large publishers often sell only their remnant inventory through ad networks. Typical numbers range from 10% to 60% of total inventory being remnant and sold through advertising networks. Smaller publishers often sell their entire inventory through ad networks. Large ad networks include a mix of search engines, media companies, and tech vendors.

Types of Ad Networks: there are 3 main types of online advertising networks:

1. **Vertical Networks:** They represent the publications in their portfolio, with full transparency for the advertiser about where their ads will run. They typically promote high quality traffic at market prices and are heavily used by brand marketers. The economic model is generally revenue share. Vertical Networks offer ROS (Run-Of-Site) advertising across specific Channels (example: Auto or Travel).
2. **Blind Networks**: These companies offer good pricing to direct marketers in exchange for those marketers relinquishing control over where their ads will run, though some networks offer a "site opt out" method. The network usually runs campaigns as RON or Run-Of-Network. Blind networks achieve their low pricing through large bulk buys of typically remnant inventory.
3. **Targeted Networks**: Sometimes called “next generation” or “2.0” ad networks, these focus on specific targeting technologies such as behavioral or contextual, that have been built into an Ad server.

There are two types of advertising networks: first-tier and second-tier networks. First-tier advertising networks have a large number of their own advertisers and publishers, they have high quality traffic, and they serve ads and traffic to second-tier networks. Examples of first-tier networks include the major search engines. Second-tier advertising networks may have some of their own advertisers and publishers, but their main source of revenue comes from syndicating ads from other advertising networks.

Mobile Ad Networks

In addition to online ad networks, there are ad networks that focus on serving ads on the mobile web and within mobile apps.

Retargeting

Retargeting, also known as remarketing, is a form of online advertising that can help you keep your brand in front of bounced traffic after they leave your website. For most websites, only 2% of web traffic converts on the first visit. Retargeting is a tool designed to help companies reach the 98% of users who don't convert right away.

In its most basic form, retargeting serves ads to people more frequently after they have left an advertiser's website. Some companies specialize in retargeting, while other companies have added retargeting to their list of methods of purchasing advertising. Retargeting helps companies advertise to website visitors who leave without a conversion; this accounts for about 98% of all web traffic.

How Does Retargeting Work?

Retargeting is a cookie-based technology that uses simple a Javascript code to anonymously 'follow' your audience all over the web. Here's how it works: you place a small, unobtrusive piece of code on your website (this code is sometimes referred to as a pixel). The code, or pixel, is unnoticeable to your site visitors and won't affect your site's performance. Every time a new visitor comes to your site, the code drops an anonymous browser cookie. Later, when your cookied visitors browse the web, the cookie will let your retargeting provider know when to serve ads, ensuring that your ads are served to only to people who have previously visited your site. Retargeting is effective because it focuses your advertising spend on people who are already familiar with your brand and have recently demonstrated interest. That's why most marketers who use it see a higher ROI than from most other digital channels.

Examples

A user visits a 'site A' sale of computer on which it consults with wireless keyboards, and then leaves this Web site without achieving my purchase. When going to visit a 'site B,' advertising displays will fit its focus and offer him a publicity Site with visual wireless keyboards. Retargeting can also offer additional products. For example, after buying a camera on 'site A,' 'site B' will offer a user another site that advertises camera covers.

When Does Retargeting Work?

Retargeting is a powerful branding and conversion optimization tool, but it works best if it's part of a larger digital strategy. Retargeting works best in conjunction with inbound and outbound marketing or demand generation. Strategies involving content marketing, AdWords and targeted display are great for driving traffic, but they don't help with conversion optimization. Conversely, retargeting can help increase conversions, but it can't drive people to your site. Your best chance of success is using one or more tools to drive traffic and retargeting to get the most out of that traffic.

Criticism

Retargeting is partly in the very criticism. Many users feel spied on when they see exactly displaying banners with pictures of the products that the user has previously viewed daily from an online store. In this context, the retargeting providers' lack of privacy is also often accused of.

Real Time Bidding

Real Time Bidding (RTB) is a term used in online marketing . It is a new method by which advertisers in the delivery of online advertising automatically, and in real time (real time) on ad space and ad impressions can offer on the internet. Per ad impression the advertising medium of the respective highest bidder will be delivered. Real Time Bidding has its origin in the auction model for text ads from Google. In the U.S., real-time bidding has long been one of the rapidly growing trends of online advertising market. Forrester Research reported a turnover of $353 million over RTB in a study for the year 2010. In 2011, revenue is expected to double and by 2016 it is expected to grow by $692 million.

Through the collaboration that real time bidding creates, among other things, the advantage that advertisers win with, is the support of optimization and flexible reporting technologies. This gives more control over your campaigns. Publishers, on the other hand, try to achieve generally higher prices for their ad space when gaining the highest bid for each ad impression. Through the combination of real-time bidding and methods of targeting offers several other advantages: Businesses can use for example in real-time bidding their site visitors and their search queries cookies "Mark" and achieve again when they visit other sites (retargeting). In real time, the company can now offer advertising space to the corresponding webpage about the visitor such as applying a second time specifically appealing and the product previously looking for this.

Example

Let us explain with a simple real time example, a user heads to a page on a publisher's website, causing it to start loading. In the same instant the publisher sends out a "bid request" to thousands of potential advertisers saying, "We've got this user who is 30, Indian, male and based in New Jersey, US, and recently searched for return air tickets to Delhi, opening a page on our site. How much are you willing to bid for being the only ad on this page?" Within about 100 milliseconds the publisher gets bids from different advertisers, which then analyses to figure out the highest bidder and the brands being advertised. The winner is alerted by the publisher and allowed to place its ad on the page. The remarkable thing about this entire process is how fast and how often it takes place. The entire series of to-and-from communication between publisher and advertisers takes place in 300-500 milliseconds, causing no visible delay to the user. This process is repeated for every ad slot on a page.

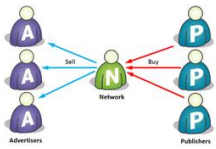
Why Real-Time Bidding?

Real-time bidding is a new display ad solution that is revolutionizing the advertising industry, allowing advertisers to:

- Bid in real-time on available ad inventory
- Maximize results within shorter timelines
- Improve budget flexibility
- Set price based on site content relevance

Display advertising traditionally required advertisers to pay a fixed rate for a certain number of impressions, even though some of those impressions might be less effective at certain times of the day. RTB allows larger advertisers to set their price based on a publisher's relevance to their campaign and smaller advertisers to advertise whenever the current bid meets their budget.

Online publishers auction off their available ad inventory as an individual impression in real time via the ad exchange. RTB allows advertisers to decide in real-time the value of an ad impression and decide whether or not to bid for that impression based on its value to their campaign.



DSPs

A **demand-side platform** (DSP) is a system that allows buyers of digital advertising to manage multiple ad exchange and data exchange accounts through one interface. Real-time bidding for displaying online ads takes place within the ad exchanges, and by utilizing a DSP, marketers can manage their bids for the banners and the pricing for the data that they are layering on to target their audiences. Much like Paid Search, using DSPs allows users to optimize based on set Key Performance Indicators such as effective Cost per Click (eCPC), and effective Cost per Action (eCPA).

DSPs are unique because they incorporate many of the facets previously offered by advertising networks, such as wide access to inventory and vertical and lateral targeting, with the ability to serve ads, real-time bid on ads, track the ads, and optimize. This is all kept within one interface which creates a unique opportunity for advertisers to truly control and maximize the impact of their ads. The sophistication of the level of detail that can be tracked by DSPs is increasing, including frequency information, multiple forms of rich media ads, and some video metrics. Many third parties are integrating with DSPs to provide better tracking.

Features
First and foremost, data is driving this new trend toward buying platforms.

Data - with technology's help - is bringing insight into media buying such that buyers can understand the value of impressions before they ever consummate a buy which in turn eliminates waste. Eventually, as real-time bidding takes hold, advertisers will be able to:

- Buy per impression
- Target using key advertiser data points
- Map to ROI goals
- And all in real-time eliminating waste as never before.

Efficiency in the digital marketplace only gets better from here - assuming that the heavy hand of regulation does not drop down too forcefully from above.

Extent of Reach
Reach is one of the major differentiators of DSPs. When you are dealing with audience targeting (retargeting) or contextual targeting, reach (or the number of sites and impressions available) is crucial to achieving scale.

The reach of the RTB ecosystem is unparalleled in the history of online display advertising. DSPs centralize access to inventory from well over a dozen supply-side platforms (SSPs), enabling access to a pool of over 15 billion impressions per day and rising. With the relatively recent addition of the Facebook Exchange (FBX), there is no question that DSPs have the upper hand in terms of reach. This means that with the right targeting data, you can basically find your audience anywhere on the web (whether or desktops, tablets, or mobile devices) and show them your ads.

E-Commerce

Electronic commerce, commonly known as e-commerce, is a type of industry where the buying and selling of products or services is conducted over electronic systems such as the Internet and other computer networks. Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. Modern electronic commerce typically uses the World Wide Web at least at one point in the transaction's life-cycle, although it may encompass a wider range of technologies such as e-mail, mobile devices social media, and telephones as well.

Electronic commerce is generally considered to be the sales aspect of e-business. It also consists of the exchange of data to facilitate the financing and payment aspects of business transactions. This is an effective and efficient way of communicating within an organization and one of the most effective and useful ways of conducting business.

E-commerce can be divided into:

- E-tailing or "virtual storefronts" on websites with online catalogs, sometimes gathered into a "virtual mall" Buying or Selling on various websites
- The gathering and use of demographic data through Web contacts and social media
- Electronic Data Interchange (EDI), the business-to-business exchange of data
- E-mail and fax and their use as media for reaching prospective and established customers (newsletters)
- Business-to-business buying and selling
- The security of business transactions

Forms

Contemporary electronic commerce involves everything from ordering "digital" content for immediate online consumption, to ordering conventional goods and services, to "meta" services to facilitate other types of electronic commerce. On the institutional level, big corporations and financial institutions use the internet to exchange financial data to facilitate domestic and international business. Data integrity and security are very hot and pressing issues for electronic commerce.

Impact on Markets and Retailers

Economists have theorized that e-commerce ought to lead to intensified price competition, as it increases consumers' ability to gather information about products and prices. Research by four economists at the University of Chicago has found that the growth of online shopping has also affected industry structure in two areas that have seen significant growth in e-commerce, bookshops and travel agencies. Generally, larger firms are able to use economies of scale and offer lower prices. The lone exception to this pattern has been the very smallest category of bookseller, shops with between one and four employees, which appear to have withstood the trend

Distribution Channels

E-commerce has grown in importance as companies have adopted Pure-Click and Brick and Click channel systems. We can distinguish between pure-click and brick and click channel system adopted by companies.
Pure-Click or Pureplay companies are those that have launched a website without any previous existence as a firm.
Bricks-and-Clicks companies are those existing companies that have added an online site for e-commerce.

TECHNOLOGIES

In the modern world of today, technology plays a big part in the media industry. There are advantages and disadvantages to this. A common fear among those in legacy media businesses (publishing, radio, newspapers, TV) is that the internet and digital technology threaten existing business models, organizational structures and industry dynamics. This fear can be both reasonable and justified. Company leaders are human beings, and it is human nature to treat the recent past as the "best" way of doing things, and to fear the uncertainty of future changes.

As Machiavelli wrote 500 years ago in The Prince, ***"there is no more delicate matter to take in hand, nor more dangerous to conduct, nor more doubtful in its success, than to be a leader in the introduction of changes. For he who innovates will have for enemies all those who are well off under the old order of things, and only lukewarm supporters in those who might be better off under the new."***

It's ironic that we're so bad at dealing with change, because it's something we face constantly–though arguably never before at the current rate. How we both embrace and educate ourselves on these changes is what will allow a particular company to achieve growth. Sustainable growth will come from sustainable knowledge, training and education both internally and externally.

Smartphones

The true definition of a Smartphone is: a cellular phone that is able to perform many of the functions of a computer, typically having a relatively large screen and an operating system capable of running general-purpose applications.

To dive deeper into Smartphones, it is a cellular telephone with built-in applications and Internet access. In addition to digital voice service, modern smartphones provide text messaging, e-mail, Web browsing, still and video cameras, MP3 player and video playback and calling. In addition to their built-in functions, smartphones run myriad free and paid applications, turning the once single-minded cellphone into a mobile personal computer. For an overview of included and nice-to-have features, see Smartphone features.

It Took More than a Decade

In 1994, IBM & BellSouth introduced a combination phone & PDA called the Simon Personal Communicator. Often touted as the 1st Smartphone, Simon was costly and heavy. It took another decade before smartphones became small & powerful enough to be widely used. Introduced in 2002, & due to its focus on e-mail, BlackBerry became the popular, corporate Smartphone, amassing a huge audience over the years. In 2007, the iPhone changed the industry forever.

Features & Applications

- **Display**: Screens on smartphones vary largely in both display size and display resolution. The most common screen sizes range from 3 inches to over 5 inches (measured diagonally).
- Radio and Television
- Popular Applications

According to a ComScore report released on May 12, 2011, nearly one in five smartphone users are tapping into check-in services like Foursquare and Gowalla. A total of 16.7 million mobile phone subscribers used location-based services on their phones in March 2011. Research published by Forrester Research in mid-2013 revealed that in a survey of 13,000 iPhone users and 15,000 Android users in the U.S., weather apps were the most popular across both platforms, followed by social networking, navigation/mapping, and gaming apps. The results of the Forrester survey also showed that app usage is higher on iOS when compared to Android. Some smartphones are equipped with a television-viewing function and a second screen app allows the user to engage in media multitasking.

Market Share

Smartphone usage

For several years, the demand for smartphones has outpaced other products on the mobile phone market. According to a 2012 survey, around half of U.S. mobile consumers own smartphones. They could account for around 70% of all U.S. mobile devices by 2013; in the 25 to 34 age group, smartphone ownership is so far reported at 62%. For the third quarter of 2011, the NPD Group reported that in the U.S., the proportion of handset sales that were made up of smartphones reached 59% for consumers aged 18 and over.

Mobile Revenue Projections

Web advertising dollars are transitioning from desktop to mobile much more quickly than previously anticipated -- and that has eMarketer boosting its 2013 mobile-advertising forecast. According to the firm, U.S. mobile advertising will be a $7.29 billion industry in 2013, $100 million more than eMarketer projected in December 2012.

Tablets

A tablet computer, or simply tablet, is a one-piece mobile computer. Devices typically have a touch screen, with finger or stylus gestures replacing the conventional computer mouse. It is often supplemented by physical buttons or input from sensors such as accelerometers. An on-screen, hideable virtual keyboard is usually used for typing. Tablets differentiate themselves by being larger than smart phones or personal digital assistants. They are usually 7 inches (18 cm) or larger, measured diagonally.

Though generally self-contained, a tablet computer may be connected to a physical keyboard or other input device. A number of Hybrids that have detachable keyboards have been sold since the mid-1990s. Convertible touch screen notebook computers have an integrated keyboard that can be hidden by a swivel or slide joint. Booklet tablets have dual-touch screens and can be used as a notebook by displaying a virtual keyboard on one of the displays. Conceptualized in the mid 20th century and prototyped and developed in the last two decades of that century, the devices only became affordable and popular in 2010.

As of March 2012, 31% of U.S. Internet users were reported to have a tablet, which was used mainly for viewing published content such as video and news. Among tablets available in 2012, the top-selling line of devices was Apple's iPad with 100 million sold by mid October 2012 since it had been released on April 3, 2010, followed by Amazon's Kindle Fire with 7 million, and Barnes & Noble's Nook with 5 million. Mobile developers are also increasingly creating apps on tablets, in order to reach a wider audience. As of May 2013, over 70% of mobile developers were targeting tablets (vs. 93% for smartphones and 18% for feature phones).

Sales

As of October 2012, for the first time in history, display screen shipments for tablets exceeded shipments for laptop display screens. According to a survey conducted by the Online Publishers Association (OPA) in March 2012, 31% percent of Internet users in the United States owned a tablet, up from 12% in 2011. The survey also found that 72% of tablet owners had an iPad, while 32% had an Android tablet in 2011. By 2012, Android tablet adoption had increased, with 52% of tablet owners using an iPad, while 51% use an Android-powered tablet. As of Q1 2013, Gartner announced that Android's share of tablets was at 56.5%; while Apple's iPad had a 40 percent share (Percentages do not add up to 100% because some tablet owners own/use more than one type of tablet).

According to IDC, in the first quarter of 2013 40% of units shipped worldwide were Apple and Samsung was second with 18% of units shipped. The top five tablet vendors by shipments were Apple (19.5m), Samsung (8.8m), Asus (2.7m), Amazon (1.8m) and Microsoft (0.9m).

Thousands of Apps

All tablets come with a Web browser and a variety of apps. Additional applications are available from the vendor's Web-based store. Apps have driven tablet use and are the foundation of time spent on these devices.

Apps

A mobile application (or mobile app) is a software application designed to run on smartphones, tablet computers and other mobile devices. They are usually available through application distribution platforms, which are typically operated by the owner of the mobile operating system, such as the Apple App Store, Google Play, Windows Phone Store, and BlackBerry App World. Some apps are free, while others must be bought. Usually, they are downloaded from the platform to a target device, such as an iPhone, BlackBerry, Android phone or Windows Phone, but sometimes they can be downloaded to laptops or desktops. For apps with a price, generally a percentage, 20-30%, goes to the distribution provider (such as iTunes), and the rest goes to the producer of the app. The term "App" became popular in 2010.

Mobile apps were originally offered for general productivity and information retrieval, including email, calendar, contacts, and stock market and weather information. However, public demand and the availability of developer tools drove rapid expansion into other categories, such as mobile games, factory automation, GPS and location-based services, banking, order-tracking, and ticket purchases. The explosion in number and variety of apps made discovery a challenge, which in turn led to the creation of a wide range of review, recommendation, and curation sources, including blogs, magazines, and dedicated online app-discovery services.

But it was only with the advent of the Apple iPhone and soon to Android phones and other smartphones was the possibility of installing applications on mobile devices, broad sections of the population more common, supported by corresponding amplified marketing the manufacturer. There are now hundreds of thousands of apps. They are available for a variety of areas, such as office applications, games, guides, sports apps, for the Emulation of older home computers and programmable calculator, as support for diabetics and more.

The popularity of mobile applications has continued to rise, as their usage has become increasingly prevalent across mobile phone users. A May 2012 comScore study reported that during the previous quarter, more mobile subscribers used apps than browsed the web on their devices: 51.1% vs. 49.8% respectively. Researchers found that usage of mobile applications strongly correlates with user context and depends on user's location and time of the day. According to ABI Research the ***mobile app market will value at $27 billion in 2013***.

App Revenue Forecast

Mobile app revenue was huge last year, but that'll be nothing compared to where it's expected to go by 2016.
In 2016, total global mobile application revenue will reach an estimated $46 billion, according to ABI Research. That figure, the research firm says, includes pay-per-download, in-app purchases, subscriptions, and advertising. Last year, mobile app revenue hit $8.5 billion, ABI research says.

This year, in-app purchases will likely outpace pay-per-download revenue, but according to ABI Research, the number of people buying content in apps won't grow all that much, potentially putting that revenue opportunity's future in doubt.

TV Everywhere

TV Everywhere is a verification system that allows television service providers to authenticate that those who wish to use their IPTV video on demand internet television services, are actually paying customers. TV Everywhere refers to customers of multichannel video programming distributors (MVPDs) watching content on mobile devices such as the iPad as well as the verification system that allows MVPDs to authenticate those who wish to use their IPTV video on demand Internet television services as actual paying customers of satellite or cable television. In June 2009, Comcast and Time Warner held a press conference to announce the initiative. Several consumer groups complained that TV Everywhere consists of an anticompetitive practice stifling competition in online television.

- TV Everywhere is an authentication system whereby certain premium content (TV shows, movies, etc.) are available online — but only if you can prove (or "authenticate") that you have a subscription to a multiservice operator (e.g. cable, satellite, Telco TV).

What does TV Everywhere mean for me?

- Well, it means a couple things. The companies behind TV Everywhere like to say that it will open up new content from cable networks that previously hasn't been available online, which is true. But if you want to enjoy that content, as noted earlier, you'll have to prove that you have paid for it.

Why is TV Everywhere being Created?

- Cable companies pay big chunks of money to cable networks (USA, MTV, FX) to carry their programming.
- Biggest issue is control. In the old days, if you wanted high-quality video content, your TV set was your only option. Thanks to the Internet and all kinds of magical video technology, premium content can be piped not only to your PC, but to your TV.

How much will TV Everywhere Cost?

- Cable companies have said repeatedly that subscribers will not be charged extra for authentication services like TV Everywhere.
- Additionally, many cable companies are also ISPs, and rolling out metered broadband or broadband caps, limiting (or charging extra) for the amount of video you consume online.

Ask an average person what "everywhere" means, and you'll hear liberal references to location -- or more precisely a multiplicity of locations. Mobile devices -- be they phones, tablets or laptops -- make video consumption possible in most locations. And that reality introduces different factors that impact how –- and to what extent -— people absorb what they view. ***It also impacts the relevance of promotional/advertisement messaging they may encounter while at work, at an airport, in the back seat of a car or in the mall***.

TV remains the dominant medium overall and certainly in the home; it will continue to deliver the largest slice of family viewing (and probably the largest device-driven slice of viewing) for the foreseeable future. If the advertising and marketing community is to take full advantage of the reality of TV Everywhere, it needs to move beyond the simple fact of content distribution and consumption across devices.

The industry needs to develop campaigns that take advantage of the growing number of people that will view -- and interact with -- video in the environments that make up the "Everywhere" of where we live and how we consume media away from the house.

The Cloud

Cloud computing is all the rage. "It's become the phrase du jour," says Gartner senior analyst Ben Pring, echoing many of his peers. The problem is that (as with Web 2.0) everyone seems to have a different definition. As a metaphor for the Internet, "the cloud" is a familiar cliché, but when combined with "computing," the meaning gets bigger and fuzzier. Some analysts and vendors define cloud computing narrowly as an updated version of utility computing: basically **virtual servers** available over the Internet. Others go very broad, arguing anything you consume outside the firewall is "in the cloud," including conventional outsourcing.

Cloud computing comes into focus only when you think about what IT always needs: a way to increase capacity or add capabilities on the fly without investing in new infrastructure, training new personnel, or licensing new software. Cloud computing encompasses any subscription-based or pay-per-use service that, in real time over the Internet, extends IT's existing capabilities.

InfoWorld talked to dozens of vendors, analysts, and IT customers to tease out the various components of cloud computing. Based on those discussions, here's a rough breakdown of what cloud computing is all about:

- **Software as a Service (SaaS)**
  This type of cloud computing delivers a single application through the browser to thousands of customers using a multitenant architecture. On the customer side, it means no upfront investment in servers or software licensing; on the provider side, with just one app to maintain, costs are low compared to conventional hosting.
- **Utility computing**
  The idea is not new, but this form of cloud computing is getting new life from Amazon.com, Sun, IBM, and others who now offer storage and virtual servers that IT can access on demand. Early enterprise adopters mainly use utility computing for supplemental, non-mission-critical needs, but one day, they may replace parts of the datacenter.
- **Web services in the cloud**
  Closely related to SaaS, Web service providers offer APIs that enable developers to exploit functionality over the Internet, rather than delivering full-blown applications.
- **Platform as a Service**
  Another SaaS variation, this form of cloud computing delivers development environments as a service. You build your own applications that run on the provider's infrastructure and are delivered to your users via the Internet from the provider's servers.
- **Managed Service Providers (MSPs)**
  One of the oldest forms of cloud computing, a managed service is basically an application exposed to IT rather than to end-users, such as a virus scanning service for e-mail or an application monitoring service (which Mercury, among others, provides).
- **Service Commerce Platforms**
  A hybrid of SaaS and MSP, this cloud computing service offers a service hub that users interact with. They're most common in trading environments.
- **Internet integration**
  The integration of cloud-based services is in its early days. OpSource, which mainly concerns itself with serving SaaS providers, recently introduced the OpSource Services Bus, which employs in-the-cloud integration technology from a little startup called Boomi.

OTT

In the fields of broadcasting and content delivery, **Over-The-Top Content** (OTT) describes broadband delivery of video and audio without a multiple system operator being involved in the control or distribution of the content itself. The provider may be aware of the contents of the IP packets but is not responsible for, nor able to control, the viewing abilities, copyrights, and/or other redistribution of the content. This is in contrast to purchase or rental of video or audio content from an Internet provider, such as pay television video on demand or an IPTV video service, like AT&T U-Verse. OTT in particular refers to content that arrives from a third party, such as NowTV, Netflix, WhereverTV, Hulu, or myTV, and is delivered to an end user device, leaving the ISP responsible only for transporting IP packets.

Consumers can access OTT content through internet-connected devices such as desktop and laptop computers, tablets, smartphones including iPhones and Android phones, set-top boxes, smart TVs and gaming consoles such as the Wii, PlayStation 3 and Xbox 360. Consumers can access apps in most app stores. PBS is testing the waters for streaming their content OTT to consumers via a Roku channel. TV providers have also launched packages where subscribers are able to choose from genre-based packages of channels and can watch live or catch-up TV through Xbox 360, home computer (Mac and PC), and newer models of Samsung Smart TVs.

Revenue Forecasts

Findings from market intelligence firm ABI Research show the OTT video market passed $8 billion in 2012 and is predicted to reach over $20 billion by 2015.

Two major consulting firms confirm that the Over-The-Top is expected to grow substantially. Arthur D. Little in a November, 2012 report said "OTT video is a mere $2 - $3 billion market in 2011 but is expected to account for approximately $15 billion by 2016, which would be roughly equivalent to today's in-store video rental market." The ADL report breaks the OTT market into different categories, according to their distinct strategies. For example, major content providers include Disney and Warner Bros. Internet players include Hulu, Netflix, and Amazon. Consumer electronics companies include Apple and Samsung. Pay-TV operators include Comcast and Sky. Accenture's research (survey 2012) said that a growing number of people in Europe and the United States already watch Internet video on their TV sets-and more regularly, ***and OTT-TV services have a steep growth potential.***

The report said ***"Video over Internet is nothing short of an industry revolution***. This offers service providers a huge opportunity-and challenge-to match quality and choice expectations, while still remaining profitable."

Content is Still King

Content is king, of course, and that's the basis of strong competition in the sector. The majors all advertise a large selection of streaming TV shows and movies.

In the last year and a half, the three major companies (Hulu, Amazon, Netflix) have each announced at least 9 content licensing deals--some exclusive, some not. But it's not simply a matter of who has the biggest library; it's about the kind and quality of content in the library. Competition, therefore, is being driven by consumers who want the best content, and the best content for a consumer is the one that offers programming in which he/she is uniquely interested. In other words, OTT vendors try to micro-target niche customers. There are hundreds of film libraries, content owners, production companies, and individuals that possess both new and older niche content that want to play in the OTT space.

Google Glasses

Google Glass is the brand name of a miniature computer worn on the head. It is mounted on a spectacle frame and hidden information in the visual field (Head-Up Display). This information can be combined with the captured image, which has a built-in in the direction of the carrier digital camera delivers live. These data can be obtained directly from the internet and shipped. In the media-theoretical context, the technology is part of Augmented Reality. While Google Glass for some IT represents a technical milestone experts recognize data protection is far-reaching implications for the privacy of the user and the people around him. They oppose the introduction of the glasses because it is able to discreetly spy on the environment of the wearer and all records of all users transmit on Google's own servers.

Development

Google Glass is a research project from the *Google Project Glass* product derived product, in the so-called Google X division of the company with Sergey Brin, was developed. Name of *Glass* refers to the glass prism which fades the information in the field of view of the user. In English-speaking Glass is often mistaken as "due to the lexical proximity Glasses "(glasses), where Google CEO Larry Page is on the English singular "Glass": "It's only, Glass' because it's only on one side."

Reception

In November 2012, Glass received recognition by Time Magazine as one of the "Best Inventions of the Year 2012", alongside inventions such as the Curiosity Rover. After a visit to the University of Cambridge by Google's chairman Eric Schmidt in February 2013, Wolfson College professor John Naughton praised the Glass and compared it with the achievements of hardware and networking pioneer Douglas Engelbart. Naughton wrote that Engelbart believed that machines "should do what machines do best, thereby freeing up humans to do what they do best."

Future Growth

Forward thinking, Google Glass is not likely to completely replace the cellphone. The spectacles are a barrier between normal human interactions; so many people will not want to wear them all the time. But it's obvious that Glass has huge applications in business and specific "experience" settings. Someone might want to wear Glass while at a concert, for instance, so they can enjoy the show again later. Or if they are a reporter on a remote assignment, their editors might want to see what they're seeing. Protestors should use them on demonstrations to guard against police brutality.
But the killer app, at least initially, for Glass is likely to be photos. Glass photos make mobile phone photos look as labor-intensive as using an old-fashioned camera.

Google Chrome

Google Chrome is a freeware web browser developed by Google. It was first released as a beta version for Microsoft Windows on September 2, 2008, and as a stable public release on December 11, 2008. Net Applications has indicated that Chrome is the third-most popular web browser when it comes to the size of its user base, behind Internet Explorer and Firefox. StatCounter, however, estimates that Google Chrome has a 39% worldwide usage share of web browsers making it the most widely used web browser in the world. Before Chrome, Google had one of the most successful, most recognized Web apps around: Google Search. But except for a toolbar and paying companies like Mozilla to make Google the default search in their browsers, it didn't have a product of its own to promote the Web with. Chrome changed that, and is now one of Google's most profitable products.

Grabbing Market Share and Headlines

While Firefox had spent years slowly chipping away at IE's dominance, few people outside of Google expected Chrome to be a viable competitor. Chrome rocketed to more than 1 percent of the market just a day after its release, according to some reports. People were excited and ready for something new in the browser world. Google said that Chrome's focus was on speed and simplicity, and it worked.

Chrome's big selling point was its speed, but that wasn't enough to sell it initially. It shed nearly two-thirds of its initial market share before the end of 2008. Fast and simple were good selling points, but people also wanted a browser that wasn't going to crash on them, and that could be at least somewhat extensible. A few months later, with Chrome out of beta the browser began a rise that could be charitably described as "meteoric." Five years on, its market share still increasing on the desktop but much more slowly, and the browser is now used by nearly as many people who use Firefox. On the other side of the coin, Internet Explorer now sits around 56 percent of the market. It's doubtful that Chrome's gains are fully attributable to IE's losses, but many of them probably are.

Beyond Speed

The market share shift came about because Google was able to develop a browser that lived up to its hype. Chrome's initial emphasis on speed and simplicity rarely wavered, and was soon joined by a focus on stability and security. Google wound up challenging assumptions in all four of those areas, and in the process built a browser with phenomenal reach.

One feature that proved to be a game-changer was the six-week rapid-release cycle. Browsers had been receiving major updates annually at best before Chrome. When Chrome launched, it was on a quarterly schedule, but doubling that meant that the browser updated security and stability fixes twice as fast.

In mimicking a mobile app's seamless updates that just occurred without the user having to go download the new version, Chrome was able to accomplish several goals at once. Not only did it become less noticeable when Google shipped those pesky but important security and stability fixes, but fans got accustomed to regular updates, and Chrome's own engineers were able to focus on introducing new features like the private browsing "Incognito" mode, automatic page translation, sandboxing, Native Client, and supporting the messy and unfinished alphabet soup of next-generation Web technologies like HTML5, CSS3, newer JavaScript APIs, WebGL and WebRTC with relative ease.

As it stands today, Chrome is a leader in pushing for future-tech Web technologies, and thanks to Chrome OS, which runs the browser as the operating system and the Web is the only platform available, Google has become even more heavily invested in developing the Web to compete with the native code that powers proprietary operating systems.

Android

Android is a Linux-based operating system designed primarily for touch screen mobile devices such as smartphones and tablet computers. Initially developed by Android, Inc., which Google backed financially and later bought in 2005, Android was unveiled in 2007 along with the founding of the Open Handset Alliance: a consortium of hardware, software, and telecommunication companies devoted to advancing open standards for mobile devices. The first Android-powered phone was sold in October 2008.

Android is open source and Google releases the code under the Apache License. This open-source code and permissive licensing allows the software to be freely modified and distributed by device manufacturers, wireless carriers and enthusiast developers. Additionally, Android has a large community of developers writing applications ("apps") that extend the functionality of devices, written primarily in a customized version of the Java programming language. In October 2012, there were approximately 700,000 apps available for Android, and the estimated number of applications downloaded from Google Play, Android's primary app store, was 25 billion. A developer survey conducted in April–May 2013 found that Android is the most popular platform for developers, used by 71% of the mobile developer population.

These factors have contributed towards making Android the world's most widely used Smartphone platform, overtaking Symbian & iOS (Apple) in 2011, and the software of choice for technology companies who require a low-cost, customizable, lightweight operating system for high tech devices without developing one from scratch. As a result, despite being primarily designed for phones and tablets, it has seen additional applications on televisions, games consoles, digital cameras and other electronics. Android's open nature has further encouraged a large community of developers and enthusiasts to use the open-source code as a foundation for community-driven projects, which add new features for advanced users or bring Android to devices which were officially released running other operating systems.

In July 2013 there were 11,868 different models of Android device, scores of screen sizes and eight OS versions simultaneously in use. As of May 2013, a total of 900 million Android devices have been activated and 48 billion apps have been installed from the Google Play store.

Beyond Smartphones & Tablets

The open and customizable nature of Android allows it to be used on other electronics, including laptops and netbooks, smartbooks smart TVs (Google TV) and cameras (Nikon Coolpix S800c and Galaxy Camera). In addition, the Android operating system has seen applications on smart glasses (Google Glass), wristwatches, headphones, car CD and DVD players, mirrors, portable media players and landlines or Voice over IP phones. Ouya, a video game console running Android, became one of the most successful Kickstarter campaigns, crowdfunding $8.5 million for its development and was later followed by other Android-based video games consoles such as Project Shield from Nvidia.

In 2011, Google demonstrated "Android@Home", a new home automation technology which uses Android to control a range of household devices including light switches, power sockets and thermostats. Prototype light bulbs were announced that could be controlled from an Android phone or tablet, but Android head Andy Rubin was cautious to note that "turning a light bulb on and off is nothing new," pointing to numerous failed home automation services. Google, he said, was thinking more ambitiously and the intention was to use their position as a cloud services provider to bring Google products into customers' homes.

Microsoft Windows

Microsoft Windows is a series of graphical interface operating systems developed, marketed, and sold by Microsoft. Microsoft introduced an operating environment named Windows on November 20, 1985 as a graphical operating system shell for MS-DOS in response to the growing interest in graphical user interfaces (GUI). Microsoft Windows came to dominate the world's personal computer market with over 90% market share, overtaking Mac OS, which had been introduced in 1984. As of September 2013, the most recent versions of Windows for personal computers, mobile devices, server computers and embedded devices are respectively ***Windows 8***, ***Windows Phone 8,*** Windows Server 2012 and Windows Embedded 8.

Windows 8, the successor to Windows 7, was released generally on October 28, 2012. A number of significant changes were made on Windows 8, including the introduction of a user interface based around Microsoft's Metro design language with optimizations for touch-based devices such as tablets and all-in-one PCs. These changes include the Start screen, which uses large tiles that are more convenient for touch interactions and allow for the display of continually updated information, and a new class of apps which are designed primarily for use on touch-based devices. Other changes include increased integration with cloud services and other online platforms (such as social networks and Microsoft's own SkyDrive and Xbox Live services), the Windows Store service for software distribution, and a new variant known as Windows RT for use on devices that utilize the ARM architecture

Windows Interface

Windows 8 uses a new graphical user interface (long known as *Metro*) named *Modern UI* . This environment is based on a brand new splash screen consists of dynamic tiles, similar to those found on the operating system Windows Phone . Each tile represents an application, and may have no practical information you enter in the application. For example, the Messages application shows the number of unread messages so that the Weather app shows the temperature depending on the location of the user. These applications are launched in full screen, and are able to transmit information between them. Applications in the new interface are developed with the new platform Windows Runtime, using various programming languages such as C + +, Visual Basic, C #, and HTML combined with JavaScript. The traditional office environment is accessible from a tile. The start button on the taskbar has been moved to the *charm bar*, accessible by plating the cursor / finger at the bottom left of the screen. This opens the start screen, hotspot Windows 8, rather than the traditional start menu.

The applications developed for this new environment were previously referenced as applications for Metro style development; they allow the user to stay in the same environment as the main office with a design in this whole system

Goals

During the development of Windows 8 Microsoft were to include the following objectives:

- Increase the usability of Windows on touch-screens through integration of a new user interface
- Improve clarity by removing the glass effects the Aero interface
- Increase the stability and speed

Firefox OS

Firefox OS is an open source, Linux -based operating system for smartphones and tablet computers , which by the Mozilla Corporation is developed. The goal is the user interface and apps complete with web technologies (HTML, CSS and JavaScript to implement) and thus programmers but also to offer users the greatest possible openness and compatibility.

As of July 2013, Firefox has approximately 16% to 21% of worldwide usage share of web browsers, making it the 2nd or 3rd most used web browser, according to different sources. According to Mozilla, Firefox counts over 450 million users around the world. The browser has had particular success in Indonesia, Germany, and Poland, where it is the most popular browser with 57%, 45%, and 44% of the market share, respectively.

History & Features

The Firefox project began as an experimental branch of the Mozilla project by Dave Hyatt, Joe Hewitt and Blake Ross. They believed the commercial requirements of Netscape's sponsorship and developer-driven feature creep compromised the utility of the Mozilla browser. To combat what they saw as the Mozilla Suite's software bloat, they created a stand-alone browser, with which they intended to replace the Mozilla Suite. On April 3, 2003, the Mozilla Organization announced that they planned to change their focus from the Mozilla Suite to Firefox and Thunderbird. The Firefox project has undergone several name changes. Originally titled Phoenix, it was renamed because of trademark problems with Phoenix Technologies. The replacement name, Firebird, provoked an intense response from the Firebird free database software project. In response, the Mozilla Foundation stated that the browser should always bear the name Mozilla Firebird to avoid confusion with the database software. After further pressure from the database server's development community, on February 9, 2004, Mozilla Firebird became Mozilla Firefox, often referred to as simply Firefox. Mozilla prefers that Firefox be abbreviated as Fx or fx, though it is often abbreviated as FF. The Firefox project went through many versions before version 1.0 was released on November 9, 2004.

Features include tabbed browsing, spell checking, incremental find, live bookmarking, smart bookmarks, a download manager, private browsing, location-aware browsing (also known as "geo-location") based on a Google service and an integrated search system that uses Google by default in most locations. Functions can be added through extensions, created by third-party developers, of which there is a wide selection, a feature that has attracted many of Firefox's users. Additionally, Firefox provides an environment for web developers in which they can use built-in tools, such as the Error Console or the DOM Inspector, or extensions, such as Firebug.

Market Adoption

Downloads have continued at an increasing rate since Firefox 1.0 was released in November 2004, and as of July 31, 2009 Firefox has been downloaded over one billion times. This number does not include downloads using software updates or those from third-party websites. They do not represent a user count, as one download may be installed on many machines, one person may download the software multiple times, or the software may be obtained from a third party. According to Mozilla, Firefox has more than 450 million users as of October 2012. Firefox was the second-most used web browser until December 2011, when Google Chrome surpassed it. As of May 2012, Firefox was the third most widely used browser, with approximately 25% of worldwide usage share of web browsers. According to StatCounter, Firefox usage peaked in November 2009 and usage share remained stagnant until October 2010 when it lost market share, a trend that continued for over a year. Its first consistent gains in usage share since September 2010 occurred in February through May 2012 before declining again in June and July

Mac OS

Mac OS is a series of graphical user interface-based operating systems developed by Apple Inc. for their Macintosh line of computer systems. The original version was the integral and unnamed system software first introduced in 1984 with the original Macintosh, and referred to simply as the "System" software. The System was renamed to Mac OS in 1996 with version 7.6. The System is credited with popularizing the graphical user interface concept.

Mac OS releases have existed in two major series. Up to major revision 9, from 1984 to 2000, it is historically known as Classic Mac OS. Major revision 10 (revisioned minorly, such as 10.0 through 10.9), from 2001 to present, has had the brand name of Mac OS X and now OS X. Both series share a general interface design and some shared application frameworks for compatibility, but also have deeply different architectures.

Design

Apple's original inception of the System deliberately sought to minimize the user's conceptual awareness of the operating system. Tasks which required more operating system knowledge on other systems would be accomplished by intuitive mouse gestures and simple graphic controls on a Macintosh, making the system more user-friendly and easily mastered. This would differentiate it from then current systems, such as MS-DOS, which were more technically challenging to operate.

The core of the system software was held in ROM, with updates originally provided free of charge by Apple dealers (on floppy disk). The user's involvement in an upgrade of the operating system was also minimized to running an installer, or simply replacing system files. This simplicity is what differentiated the product from others.

Versions

Early versions of Mac OS were compatible only with Motorola 68000-based Macintoshes. As Apple introduced computers with PowerPC hardware, the OS was ported to support this architecture. Mac OS 8.1 was the last version that could run on a "68K" processor (the 68040). OS X, which has superseded the "Classic" Mac OS, is compatible with only PowerPC processors from version 10.0 ("Cheetah") to version 10.3 ("Panther"). Both PowerPC and Intel processors are supported in version 10.4 ("Tiger", Intel only supported after an update) and version 10.5 ("Leopard").

The early Macintosh operating system initially consisted of two pieces of software, called "System" and "Finder", each with its own version number. System 7.5.1 was the first to include the Mac OS logo (a variation on the original Happy Mac startup icon), and Mac OS 7.6 was the first to be named "Mac OS". Before the introduction of the later PowerPC G3-based systems, significant parts of the system were stored in physical ROM on the motherboard. The initial purpose of this was to avoid using up the limited storage of floppy disks on system support; given that the early Macs had no hard disk (only one model of Mac was ever actually bootable using the ROM alone, the 1991 Mac Classic model). This architecture also allowed for a completely graphical OS interface at the lowest level [clarify] without the need for a text-only console or command-line mode. Boot time errors, such as finding no functioning disk drives, were communicated to the user graphically, usually with an icon or the distinctive Chicago bitmap font and a Chime of Death or a series of beeps. This was in contrast to computers of the time, which displayed such messages in a mono-spaced font on a black background, and required the use of the keyboard, not a mouse, for input. To provide such niceties at a low level, Mac OS depended on core system software in ROM on the motherboard, a fact that later helped to ensure that only Apple computers or licensed clones (with the copyright-protected ROMs from Apple) could run Mac OS.

Java

JavaScript is a programming language used to make web pages interactive. It runs on your visitor's computer and doesn't require constant downloads from your website. JavaScript is often used to create polls and quizzes. JavaScript support is built right into all the major web browsers, including Internet Explorer, Firefox and Safari. Provided that the visitors to your site are using web browsers that support JavaScript (most do) and have JavaScript enabled (it is by default), then your JavaScript will run when they visit the page.

Java is the foundation for virtually every type of networked application and is the global standard for developing and delivering mobile applications, games, Web-based content, and enterprise software. With more than 9 million developers worldwide, Java enables you to efficiently develop, deploy and use exciting applications and services.

From laptops to datacenters, game consoles to scientific supercomputers, cell phones to the Internet, Java is everywhere. Here is a glance at just a few statistics:

- 1.1 billion desktops run Java
- 930 million Java Runtime Environment downloads each year
- 3 billion mobile phones run Java
- 31 times more Java phones ship every year than Apple and Android combined
- 100% of all Blu-ray players run Java
- 1.4 billion Java Cards are manufactured each year
- Java powers set-top boxes, printers, games, car navigation systems, ATMs, lottery terminals, medical devices, parking payment stations, and more.

Why Software Developers Choose Java

Java has been tested, refined, extended, and proven by a dedicated community of Java developers, architects and enthusiasts. Java is designed to enable development of portable, high-performance applications for the widest range of computing platforms possible. By making applications available across heterogeneous environments, businesses can provide more services and boost end-user productivity, communication, and collaboration—and dramatically reduce the cost of ownership of both enterprise and consumer applications. Java has become invaluable to developers by enabling them to:

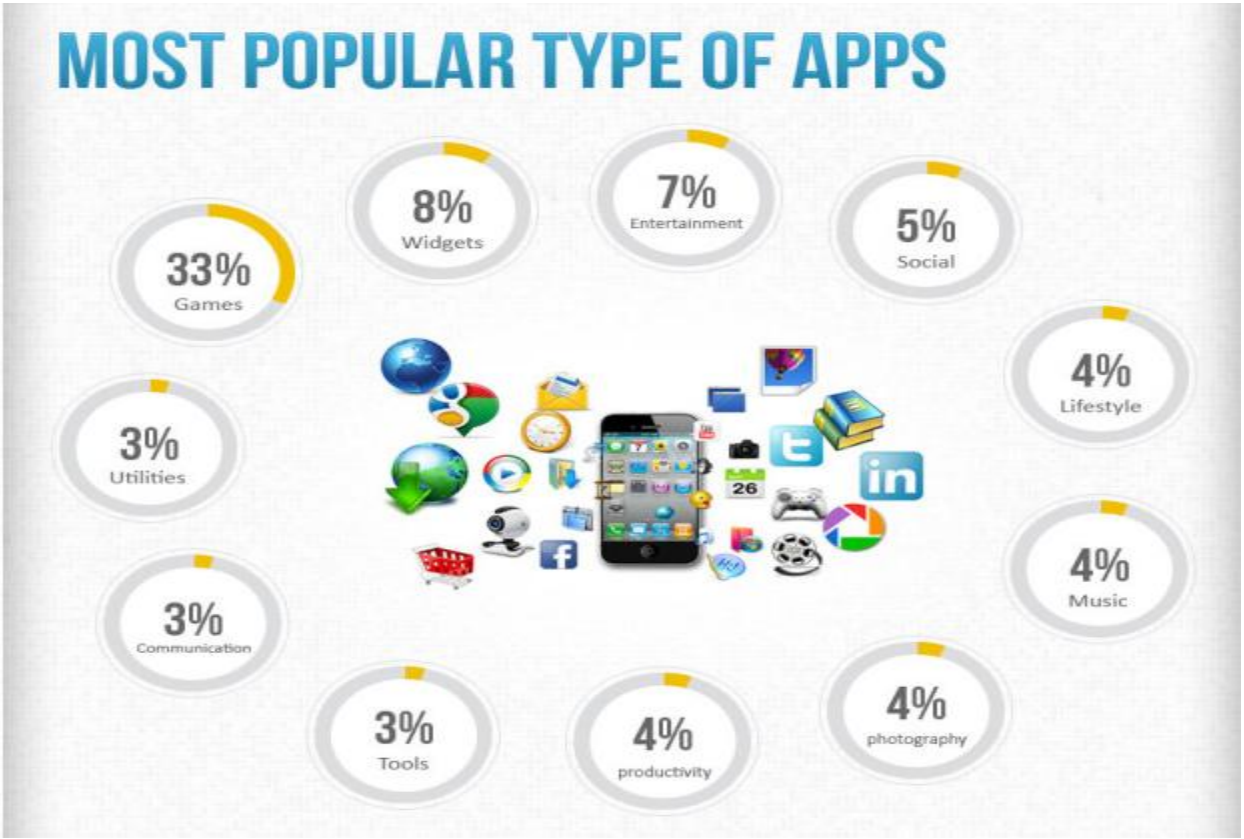
- Write software on one platform and run it on virtually any other platform
- Create programs that can run within a web browser and access available web services
- Develop server-side applications for online forums, stores, polls, HTML forms processing, and more
- Combine applications or services using the Java language to create highly customized applications or services
- Write powerful and efficient applications for mobile phones, remote processors, consumer products, and practically any other electronic device

KEY APPS & SITES

It's amazing to think that the word 'app', at least in the reference that we understand it presently, hasn't actually been around all that long. It was listed as "word of the year' by the American Dialect Society in 2010. The word of the last decade, in case you're curious, is "google".

Did You Know?

- Apple's app store is the oldest, largest, and best (according to ABI Research) out there
- The Google Play app store is the second largest (and 2nd oldest. Both were started in 08)
- 33% of all apps purchased are games
- The IDC predicts that in 2014, there will be 76.9 Billion downloads (worth ~$35B!)
- There are 26 cross platform app stores, 13 android, 5 iOS, and 3 Blackberry
- It is predicted that free downloads will rise from about 88.4% in 2011 to 93% in 2016



Zeebox

Zeebox is a social networking and social television platform available for mobile devices, including iPad, iPhone, Android, BlackBerry OS, BlackBerry 10 and web. Zeebox provides contextual information second-by-second as people watch TV. This information includes which friends are watching the same shows right now and what is seen and heard within the broadcast.

The company was founded by Anthony Rose, the ex-CTO of the BBC iPlayer, and Ernesto Schmitt, ex-Board Director of EMI Music. Film Director Simon Miller, Max Bleyleben, and Alex Nunes are also in the founding team.
The service was launched in October 2011 by Zeebox Limited, a British company, originally called tBone.
In January 2012, BSkyB bought a stake in Zeebox and announced plans to integrate the software with its offering. In September 2012, Zeebox announced expansion into the US with a commercial partnership with Comcast Cable, NBCU, Viacom and HBO. Comcast, NBCU and Viacom have also taken minority equity stakes for undisclosed sums. In November 2012, Zeebox launched a joint venture in Australia with Network Ten and Foxtel.

How it works
At its most basic, an iPad user can "check-in" to shows manually. To automate that process, the app can listen for shows' audio fingerprints, Shazam-style. Connected TV owners get the full automatic experience because those TVs already know what shows are on.

Zeebox is like Spotify for TV watching. You can see what's on now, what your friends are watching, what celebrities are watching, or rank shows by what the soon-to-be hordes on Zeebox are watching. It's up to you if you want to alert the world about what you're watching, and you can tell them you've 'booked' an appointment with Homeland. Click on any show and you pull up related clips, photos, tweets, web links, news, bios, etc. Later in the year, Zeebox will add remote control capability, something it has had in the U.K. with its partner, BSkyB, since its launch in November 2011. Comcast put an undisclosed equity stake into Zeebox.

History
Zeebox was funded with $6 million initially. BSkyB invested an undisclosed amount for a 10% stake, with Australia's Network Ten coming for a smaller amount. It earned 1 million downloads in the U.K. in its first year. It should do ten times that many in the U.S. Its design and user interface is simple and fast, designed by CTO Anthony Rose, who helped build the BBC's widely acclaimed iPlayer. Zeebox competes in a somewhat crowded field of second-screen apps. Audio-recognition app Shazam has 250 million users, of which 135 million say they use the app to pull up enhanced TV pages once a week. Yahoo's IntoNow app is similarly focused on delivering relevant content using a phone or tablet's microphone for audio recognition. Zeebox takes a different approach. Its computer servers crawl everything that's on television, including the closed-caption feed and the ads themselves, so as long as you have a Web connection your Zeebox show page pulls in a stream of related entity tags on the right-hand side of the screen that changes as the show proceeds. These tags link to Wikipedia pages, songs, videos, sites, polls or, for a fee, merchants and sponsors. It's like Google AdSense for TV. There will also be display advertising targeted to real-time viewing habits.

Zeebox wants you to watch live TV, just as its partners, the broadcasters and cablers, do. Its revenue will come from selling them and their advertisers sponsored tags, display ads, sales of merchandise through the app and selling aggregated audience data back to broadcasters and studios. TV is getting social and viewers are getting obsessed with sharing their television experience.

HBO GO

On February 18, 2010, HBO launched HBO Go, a website which features 600 hours of content available for streaming in standard or high definition. Content includes HBO original programming, movies, comedy specials, documentaries, sports, and late night adult programming. It is available to HBO subscribers of Verizon FiOS, AT&T U-verse, Google TV, Charter Communications, Cox Communications, DirecTV, Dish Network, and Suddenlink Communications. The HBO Go iPad, iPhone, and Android app launched on April 29, 2011. The app was downloaded over one million times in its first week, and had over three million downloads by the end of June 2011. Time Warner Cable is projected to launch HBO GO in January 2012 after beta testing is complete.

HBO GO is the successor to HBO on Broadband, originally launched in January 2008 to Time Warner Cable customers in Green Bay and Milwaukee, Wisconsin. It featured 400 hours of movies and original series that could be downloaded to computers, at no extra charge for HBO subscribers; viewers had to be a digital cable customer who was an HBO subscriber, and used their cable company as their internet service provider. Programming included 130 movie titles that rotated monthly and top hits ranging from movies, series and specials.

On October 11, 2011, it was announced that HBO GO would be available through the Roku streaming player, though under the same requirements that a cable or satellite subscription to HBO is required. It is unknown if there are any plans to offer HBO GO on a standalone subscription basis like some channels are offered on Roku.
As of March 27, 2012, HBO GO is available on Xbox 360 as an app; both HBO GO and Xbox Live Gold subscriptions are required to use the app. In June 2012, the Android app became available through the Amazon Appstore, and can be downloaded on the Amazon Kindle Fire. On June 19, 2013 the service became available through Apple TV.
As of March 27, 2012, HBO GO is available on Xbox 360 as an app; both HBO GO and Xbox Live Gold subscriptions are required to use the app.

Future Growth
HBO's CEO is considering making the company's HBO Go online streaming service available to consumers who don't have cable, according to a report. "Right now we have the right model," HBO chief executive Richard Plepler told Reuters on Wednesday. "Maybe HBO GO, with our broadband partners, could evolve."

HBO Go, which has about 6.5 million registered users, requires a subscription to a cable operator. However, Plepler mused that the service could conceivably be packaged with a broadband service offering. Broadband customers could pay $10 or $15 extra for HBO to be added to the service, Plepler said, adding, "We would have to make the math work."

Plepler's comments come as Netflix and Hulu Plus are disrupting the standard cable TV programming model in which consumers get a package of channels for a monthly fee. Comparatively, those streaming services provide 24/7 on-demand programming in which consumers can choose shows and movies when they want to watch them.

Shazam

Shazam is a commercial mobile phone based music identification service, with its headquarters in London, England. The company was founded in 1999 by Chris Barton, Philip Inghelbrecht, Avery Wang and Dhiraj Mukherjee.[1]
Shazam uses a mobile phone's built-in microphone to gather a brief sample of music being played. An acoustic fingerprint is created based on the sample, and is compared against a central database for a match. If a match is found, information such as the artist, song title, and album are relayed back to the user. Relevant links to services such as iTunes, YouTube, Spotify or Zune are incorporated into some implementations of Shazam.
As of September 2012, Shazam has raised $32 million in funding.[2] In July 2013, Carlos Slim invested $40 million in Shazam for an undisclosed share.

How It Works

Unlike some other services that allow you to identify a song by humming, Shazam works by analyzing the captured sound and seeking a match based on an acoustic fingerprint in a database of more than 11 million songs. Shazam identifies songs based on an audio fingerprint based on a time-frequency graph called a spectrogram. Shazam stores a catalog of audio fingerprints in a database. The user tags a song for 10 seconds and the application creates an audio fingerprint based on some of the anchors of the simplified spectrogram and the target area between them. For each point of the target area, they create a hash value that is the combination of the frequency at which the anchor point is located, the frequency at which the point in the target zone is located, and the time difference between the point in the target zone and when the anchor point is located in the song. Once the fingerprint of the audio is created, Shazam starts the search for matches in the database. If there is a match, the information is returned to the user, otherwise it returns an error. Shazam can identify prerecorded music being broadcast from any source, such as a radio, television, cinema or club, provided that the background noise level is not high enough to prevent an acoustic fingerprint being taken, and that the song is present in the software's database.

Features

Shazam offers three types of applications; a free-to-try program simply called Shazam, their pay-to-play program called Shazam Encore, and their most recent addition called (Shazam) RED, launched in 2009. The service was expanded in September 2012 to enable users in the US to identify featured music; access cast information and gets links to show information online, as well as adding social networking capabilities

Future Growth

Though Shazam is not profitable, the company said it has generated revenue of $300 million in the past 12 months from song purchases. When users purchase a song from iTunes or other digital stores after tagging it on Shazam, the company gets a cut of the sale. Additionally, Shazam said it has now worked on more than 300 TV ad campaigns. The London-based company began using its software to tag TV commercials a few years back, and it charges companies it works with six-figure fees to include the Shazam logo on their ads, letting users know that they can expand the commercial through their smartphones. The company last received funding, for $32 million, in September. Since then, Shazam said it has more than tripled its active user base to 70 million.

Shazam is defining a new category of media engagement which combines the power of mobile with traditional broadcast media and advertising to create compelling value-added experiences for consumers, content providers and brands.

Skype

Skype is an online communications service that has both free and paid services available to Skype users, using an internet connection. For one-on-one communications, you can sign up for a free account, though any calls or connections to people who are not using a Skype account will cost a fee. For group video conferencing, at least one member of the call must have Skype Premium or a subscription to a business group video call plan through Skype Manager, which will cost a fee.

For online classes, Skype can provide a way for students and instructors to stay connected. For example, students can use audio or video conferencing to meet and discuss group projects. Instructors could also use Skype to provide a virtual "office hours," using document sharing and screen sharing to illustrate ideas a student may be having trouble with. Many useful features are available for free. The most current services that are available through Skype can be found on their website.

Skype Services

This is an overview of some of the services Skype can provide that are useful for distance learning.

1. Free Services:

- Skype-to-Skype audio calls: calls can be made from your computer to other Skype users. Conference calling can include up to 25 people. This costs extra if someone is not using Skype, or if you are using a mobile phone rather than a computer.
- One-to-one video calls: this allows you to use webcams to add video to your conversations. HD video is available assuming you have the hardware and Windows operating system; otherwise, you can use a regular video with other cameras and operating systems. If you wish to include more people (up to 10) with a video conference call, at least one member of the chat will need to purchase a Skype Premium account .
- Instant messaging: text-chat with other Skype users via computer. Mobile SMS texts will cost a fee.
- Screen sharing: this allows you to show what you are doing on your desktop, which can be useful when teaching how to use a software program. You can choose to share a specific window or your whole screen.
- Document Share: send documents, photos or presentations of any size between users.

2. Premium Services:

This is the only option that will provide group video conferencing. Premium service plan cost about $4.99/month for a 12-month subscription

- Group video calling: share a video conference with up to ten people. For the best quality, Skype recommends that you limit calls to five people or fewer. Users with phones or mobile devices could join a video conference with voice only.o Use limitations: 100 hours per month, 10 hours per day, and 4 hours per individual call session. Exceeding the limit will convert the conference to an audio call.
- Support: Skype will provide Premium users with live technical support chat.
- Free calls: to US and Canada phone numbers. Limits apply.
- Pay to use: day passes or monthly subscriptions are available.

On July 14, 2011 ***Skype partnered with Comcast to bring its video chat service to Comcast subscribers via their HDTV sets.*** On June 17, 2013 Skype released a free video messaging service which can be operated on Windows and Mac OS, iOS, Android, BlackBerry and any other Apple or Google device.

Reddit

Reddit is a social news and entertainment website where registered users submit content in the form of either a link or a text ("self") post. Other users then vote the submission "up" or "down", which is used to rank the post and determine its position on the site's pages and front page. Content entries are organized by areas of interest called "subreddits". Reddit was founded by Steve Huffman and Alexis Ohanian. It was acquired by Condé Nast Publications in October 2006. In September 2011, Reddit was split from Condé Nast, and now operates as a subsidiary of Condé Nast's parent company, Advance Publications. Reddit is based in San Francisco, California.

Overview

The site is a collection of entries submitted by its registered users, essentially a bulletin board system. Registered users, especially those who post new entries, or post comments to entries, are called "redditors." Reddit itself is a portmanteau of "read/edit" and of "read it", i.e., "I read it on Reddit".

As submissions post to the site, redditors can vote for or against them (upvote/downvote). Each subreddit has a front page that shows newer submissions that have been rated highly. Redditors can also post comments about the submission, and respond back and forth in a conversation tree of comments; the comments themselves can also be upvoted and downvoted.

The home page of Reddit displays front page content from selected subreddits. There is a default set, but registered users can customize their set. Redditors can "friend" one another, which gives a redditor quick access to posting and comments of their friend list. Postings are typically a link to an external source, with a title provided by the redditor who posted it. Some redditors use the site as a personal bookmark collection. Others, relying on the size and activity of Reddit, and on the crowd sourced ratings of links, use it as a news aggregator.

Reddit also allows postings that do not link externally. These are called "self posts" or "text submissions". Reddit encourages links over text submissions, by allowing redditors to accumulate points ("karma") for highly rated links, but not for self-posts. Redditors also accumulate karma for highly rated comments, on posts of both kinds.
The commenting system and friend system, along with a certain "Reddit ethos" lend Reddit aspects of a social network, though not to the extent of Facebook, Google+, and other websites aimed at social networking.

Front page rank, for both the general front page and for individual subreddits, is determined by the age of the submission, positive ("upvoted") to negative ("downvoted") feedback ratio and the total vote count.[5] Dozens of submissions cycle through these front pages daily.

As of June 2013, commentary on the site is particularly active, with several communities generating thousands of comments per day.

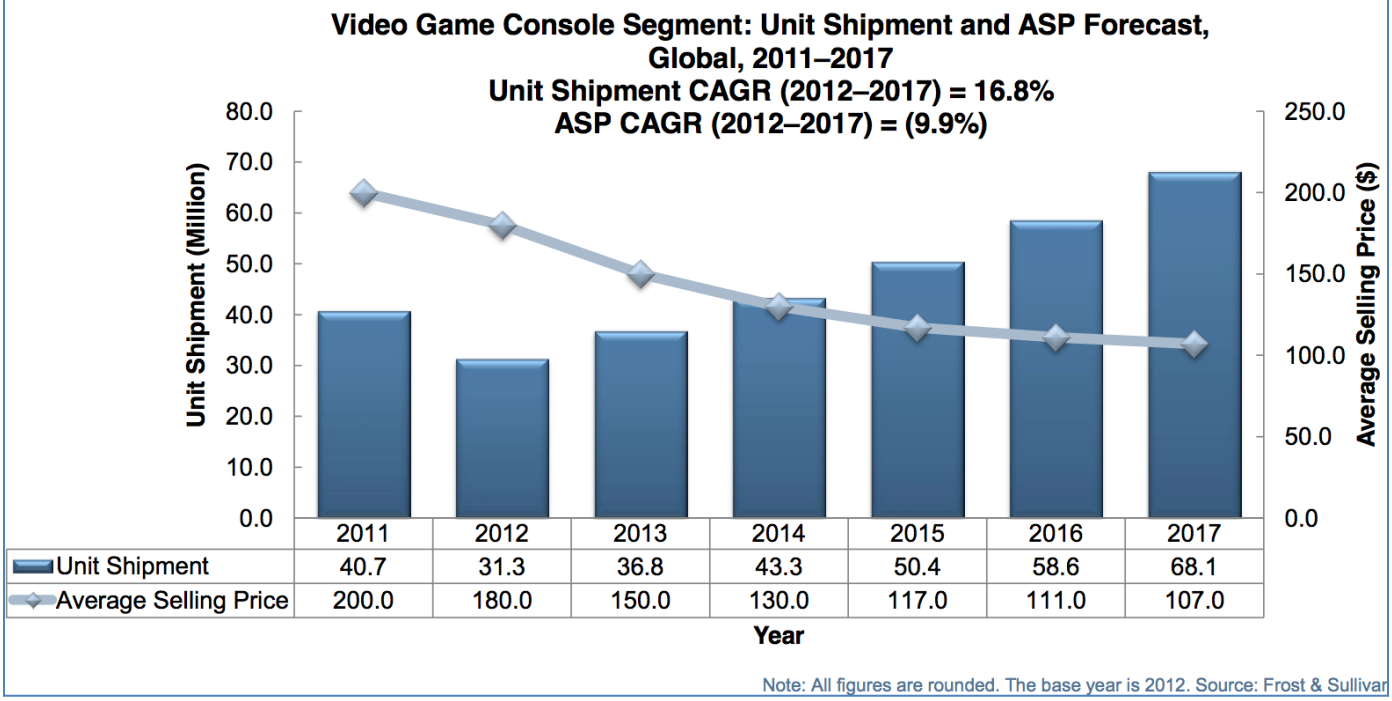
The Reddit community has been known to socialize at local parks and bars around the world, and there are many localized subreddits for local meetings.

GAMING CONSOLES

Gaming consoles are becoming much more than boxes to play video games in front of. Gaming consoles are starting to have more impact in content viewing and how traditional television viewers are consuming their video. What was once just a video game experience; these new consoles are evolving to set top boxes and media centers for households. Reinforcing and validating this was a study from Frost & Sullivan that stated "**more than 35M video game consoles are expected to be sold in 2013, 60% which will be used for OTT Video usage."**

Knowing what these consoles are capable of and how they are evolving into set top boxes for households is a key component on staying ahead of the media industry

Key Takeaway: 2012 saw a slump in sales as the Wii U disappointed and buyers waited for next-gen consoles from Sony and Microsoft, but the market is expected to recover to stronger growth levels on continued demand for the gaming and OTT experience.



Note: All figures are rounded. The base year is 2012. Source: Frost & Sullivan

Xbox

The Xbox is a video game console manufactured by Microsoft. It was released on November 15, 2001 in North America, February 22, 2002 in Japan, and March 14, 2002 in Australia and Europe. It was Microsoft's first foray into the gaming console market. As part of the sixth-generation of gaming, the Xbox competed with Sony's PlayStation 2, Sega's Dreamcast (which stopped American sales before the Xbox went on sale), and Nintendo's GameCube. The Xbox was the first console offered by an American company after the Atari Jaguar stopped sales in 1996. The name Xbox was derived from a contraction of DirectX Box, a reference to Microsoft's[6] graphics API, DirectX.
The integrated Xbox Live service launched in November 2002 allowed players to play games online with a broadband connection.[7][8] It first competed with Dreamcast's online service but later primarily competed with PlayStation 2's online service. Although these two are free while Xbox Live required a subscription, as well as broadband-only connection which was not completely adopted yet, Xbox Live was a success due to better servers, features such as a buddy list, and milestone titles like Halo 2 released in November 2004, which is the best-selling Xbox video game and was by far the most popular online game for years.

The Xbox 360 is the second video game console developed by and produced for Microsoft and the successor to the Xbox. The Xbox 360 competes with Sony's PlayStation 3 and Nintendo's Wii as part of the seventh generation of video game consoles. As of September 30, 2012, 70 million Xbox 360 consoles have been sold worldwide. Several major features of the Xbox 360 are its integrated Xbox Live service that allows players to compete online; download arcade games, game demos, trailers, TV shows, music and movies; and its Windows Media Center multimedia capabilities. The Xbox Live also offers access to various (often region-specific) third-party media streaming applications. The Xbox One is the upcoming third video game console developed by and produced for Microsoft and the successor to the Xbox 360. The Xbox One will compete with Sony's PlayStation 4 and Nintendo's Wii U as part of the eighth generation of video game consoles. It is scheduled for a November 2013 release.

Online Services

Xbox Live
Is an online service with over 40 million users worldwide (January 10, 2012). It comprises an online virtual market, the Xbox Live Marketplace, which allows the purchase and download of games and various forms of multimedia. Online gaming on the Xbox first started on November 15, 2002 worldwide. The service is still active and continues to be played by gamers.

Xbox Live Marketplace (XBLM)
Is a virtual market designed for Microsoft's Xbox 360 console that allows Xbox Live members to download purchased or promotional content. The service offers movie and game trailers, Video Store, game demos, Xbox Live Arcade games, Xbox Live Indie Games (Previously Community Games), Games on Demand (Xbox 360 and Xbox Originals), downloadable content such as map packs, gamer pictures, and Xbox 360 Dashboard themes.
The August 11, 2009 update added Xbox 360 games for download, the Avatar Marketplace, and renamed Community Games to Indie Games.

PlayStation

The PlayStation officially abbreviated PS) is a series of video game consoles created and developed by Sony Computer Entertainment with consoles in the fifth to eighth generations. The brand was first introduced on December 3, 1994 in Japan with the launch of the original PlayStation console. It now consists of a total of three core home consoles, as well as a media center, an online service, a line of controllers, two handhelds and a phone, as well as multiple magazines. The first console in the series, the PlayStation, was the first video game console to ship 100 million units, 9 years and 6 months after its initial launch. Its successor, the PlayStation 2, was released in 2000. The PlayStation 2 is the best-selling home console to date, having reached over 150 million units sold as of January 31, 2011. Sony's latest console, the PlayStation 3, was released in 2006 has sold over 78 million consoles worldwide.

The PlayStation Network is an online service with over 69 million users worldwide (January 25, 2011). It comprises an online virtual market, the PlayStation Store, which allows the purchase and download of games and various forms of multimedia, a subscription-based online service known as PlayStation Plus and a social gaming networking service called PlayStation Home, which has over 14 million users worldwide. PlayStation Suite is an upcoming software framework that is aimed to provide PlayStation content cross-platform and cross-devices; currently only Android and the PlayStation Vita devices are supported.

PlayStation 4

The PlayStation 4 (PS4) is an upcoming video game console from Sony Computer Entertainment announced at a press conference on February 20, 2013. In the meeting, Sony revealed some hardware specifications of the new console. Among the new applications and services, Sony will introduce the PlayStation App, allowing PS4 owners to turn Smartphones and tablets into a second screen to enhance gameplay. The company also plans to debut Gaikai, a cloud-based gaming service that hosts downloadable content and games. By incorporating a share button on the new controller and making it possible to view in-game content being streamed live from friends, Sony plans to place more focus on social gameplay as well

PlayStation and Watching TV

A new app called the “Live Events Viewer” has been released for the Sony PlayStation. The first event PS3 owners can view is WWE SummerSlam on Sundays. Viewers will have to pay for the PPV separately, but this is the first time you can view a WWE PPV via your PS3. Sony promises other non-PPV events will be offered for free. Other content you can look forward to via this new app are concerts, races and a whole lot more. There is no subscription fee required to use the app, you just have to pay for PPV events.

Wii

The Wii is a home video game console released by Nintendo on November 19, 2006. As a seventh-generation console, the Wii competes with Microsoft's Xbox 360 and Sony's PlayStation 3. Nintendo states that its console targets a broader demographic than that of the two others. As of the first quarter of 2012, the Wii leads the generation over PlayStation 3 and Xbox 360 in worldwide sales; in December 2009, the console broke the sales record for a single month in the United States.

The Wii has many advanced features compared to previous Nintendo consoles. For example, the primary wireless controller (the Wii Remote) can be used as a handheld pointing device and detects movement in three dimensions. Another notable feature of the console is WiiConnect24, which enables it to receive messages and updates over the Internet while in standby mode. Furthermore, it is the first console to offer the Virtual Console service, with which select emulated games from past systems can be downloaded.

In late 2011 Nintendo released a reconfigured model, the "Wii Family Edition", which removed Nintendo GameCube compatibility; this model was not released in Japan. The Wii Mini, Nintendo's first major console redesign since the compact SNES, succeeded the standard Wii model on December 7, 2012 in Canada. The Wii Mini can only play Wii optical discs, as it omits GameCube and online game capabilities.

Online Services

Online Games

The online mode is completely free and uses the service Nintendo Wi-Fi Connection. The network program is included directly in the console, which eases the work of developers. The Wii is, from the beginning, sold with everything needed to play online and no subscription is required for Nintendo games. Nintendo believes that the online mode will be the turning point of the new generation of consoles and wishes to be present.

Virtual Console

With this platform and free Internet, the Wii can emulate games consoles NES (500 points), SNES (800 points), Nintendo 64 (1000 points), Turbo Grafx (600) Neo-Geo AES (900 points), Genesis (800 points) and Virtual Console Arcade (500 points).

Enjoy Hulu Plus and Netflix from your Wii console

Wii is great for family movie night too. You can stream thousands of TV episodes and movies right from your Wii console using Netflix. You can also enjoy current and classic TV series, and acclaimed films using Hulu Plus. All you need is a Netflix streaming account or Hulu Plus account, and wireless broadband Internet access.

The company chose to call its new console the "Wii." Nintendo has also expressed that the pronunciation of Wii, which is like the English word "we," tells you who this console is for -- all of us, everyone! There are other implied or attached meanings in the new name -- one important one goes with related WiFi releases to be used with Nintendo's wireless gaming service, "Nintendo Wi-Fi Connection." Naming aside, the company set a big goal -- to dramatically improve the interface for video games. With this strategy, Nintendo built an amazing amount of hype around its innovative controller for the Wii.