

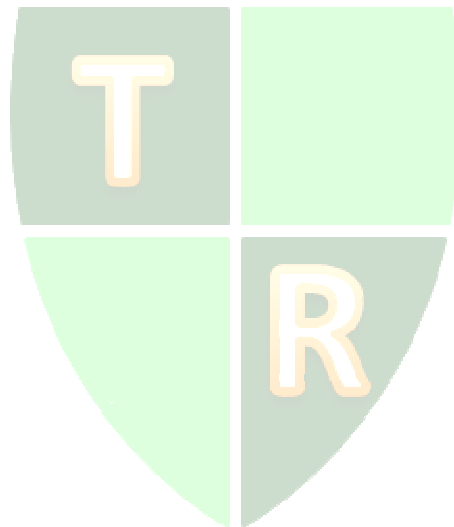
## Technology entrepreneurship: Creating your own online business

Todd A. Finkle  
Gonzaga University

### ABSTRACT

The growth of the Internet has exploded with sales estimated to be over \$4 trillion by 2021. The significant growth of mobile technology, social apps, and the cloud has created opportunities for potential online entrepreneurs to enter to world of technology entrepreneurship at a low cost. This article reviews the different types of business models that are available for potential online entrepreneurs. It then guides potential online entrepreneurs through the steps that are needed to create their own online startup along with the costs involved.

Key Words: Technology entrepreneurship, startups, business models, online business, digital entrepreneurship, self-employment



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## INTRODUCTION

The Internet is booming. Business has exploded from \$1.9 trillion in 2016 to an estimated \$4.48 trillion by 2021. As technology has increased in sophistication, it has been increasingly easier to enter the online world of business. Three major shifts are occurring on the Internet landscape which are social, mobile, and the cloud.

### Mobile

Mobile devices like the iPhone allow users to always be connected. Two platforms that have taken the largest global market share are Android (85%) and iOS (Apple: 14%). For the United States it is 55% and 44%. Figure 1 examines the growth of smartphone usage from 2009-2016. More users are now involved in the Internet due to mobile devices. For many people, not owning a computer besides a mobile device was becoming commonplace. The significant increase in the number of people using the Internet and smartphones increases the possibility of them spending money online (See Figure 2).

### Social

Social web sites and apps allow users to share information, photos, messages, etc. with others. Apps like Facebook, Messenger, Instagram, and WhatsApp are considered the top social sites. The popularity of social sites combined with mobile has led to an increase of time on the web (See Figure 3). Social sites are another avenue that businesses can use to reach the end consumer. In the United States there were more than 70 million small businesses that used Facebook to increase their sales.

In their annual Internet Trends Report, Kleiner, Perkins, Caufield, & Byers (2017) found valuable insights and statistics on the technology industry. According to Lua (2018) the top ten major social media trends happening in 2018 are: 1) There are now almost 2.5 billion social media users, 2) Social media is going mobile, 3) Social messaging overtook social media, 4) Social messaging will greatly benefit businesses, 5) Chatbots are becoming the norm, 6) Businesses can no longer afford to ignore social customer service, 7) Organic reach and referral traffic are plummeting, 8) Video is still the most popular content type, 9) User-generated content can help drive reach and engagement, and 10) Businesses are pouring more money into social ads.

### The Cloud

The cloud refers to accessing computing resources, applications, software, and computing resources through network connections. Data centers around the world held the data from the cloud. The cloud has allows online ventures to reduce the costs that are involved in saving data. A small monthly fee was typically required to obtain these resources.

## ONLINE BUSINESS MODELS

There are numerous online business models. Some of these include: 1) Freemium, 2) Subscription, 3) on-demand model 4) ecommerce store (physical products), 5) affiliate

marketing, 6) drop shipping, 7) coaching/consulting, 8) software (including apps), 9) advertising, and 10) blogging. Some of these models, like building physical products, had high costs (e.g., cost of materials, shipping, storage, etc.). Other models like coaching and online courses, do not require storage space, shipping costs, or materials to get started.

### **Freemium Model**

This model was a combination of being both premium and free. Online startups used this model in a variety of industries. It was not uncommon to see gaming apps have a free version and then try to upsell the consumer to a more expensive option with additional features. Spotify is an example of a music streaming service that had two versions. The first version is free and the other charges \$9.99 a month with a bonus of no ads.

### **Subscription Model**

Netflix, Spotify, Zipcar and even some newspapers like the *New York Times* are all examples of companies that charged a monthly fee or a subscription model. This model provided for convenience to the consumer as it would automatically be taken out of their account (assuming the customer set it up that way).

### **On-Demand Model**

A variety of companies use this type of business model including Uber, Lyft, Airbnb, Instacart, Ola, and many more. This model focuses on the specific needs of the customers and providing it for them when they want the product/service. Venture capitalists have invested a lot of money into these firms, however most of them are losing money. The goal for the investors is to capture most of market share.

### **Affiliate Marketing**

Affiliate marketing is a partnership with the online entrepreneur that published content and the retailer who had the affiliate program. Initially, the entrepreneur needed to apply to the affiliate program. Once approved, the entrepreneur got product tracking links or affiliate links. There were over 31 ways to experiment and profit with affiliate links, such as placing them within written content, using them to create product listings, mentioning them verbally on podcasts or embedding them into banner advertisements (Grey, 2017).

Becoming a successful affiliate business was not necessarily easy. There were a lot of companies using this business model, however there were some companies making over \$1,000,000 a year. An affiliate could be a money maker by linking products to stores like Amazon.com. Amazon was one of the most popular affiliate programs in the world. There were over 1,000 affiliate programs to choose from. Although Amazon could be lucrative, there were some much better options, which allowed affiliates to earn up to 75% commissions.

### **Drop shipping**

Drop shipping was like running an affiliate store and the drop shipper acted as the mediator without ever touching the product. The drop shipper does not hold any inventory, however the suppliers did. The difference between an affiliate and a drop shipper was the sale of drop shipping websites was not totally managed. Drop shippers may have to set up an automatic system to make a purchase their company so it can be sent to the customer. The model relied heavily on bringing the supply and demand of a product, or service, together.

### **Coaching/Consulting**

Consulting was about assisting a company or potential entrepreneur with an area(s) of expertise. Some examples were assisting entrepreneurs in the startup process or providing expertise in online marketing. Steve Blank, an adjunct professor at Stanford University, created several online businesses, including consulting. Coaching consisted of having an expertise in one or more area(s) and provided clients with mentorship, leadership, and career advice. Another example could be entrepreneurs that provide some sort of expertise to online entrepreneurs on sites like Upwork, which provide experts for people.

### **Software (including apps)**

Creating software as a solution(s) to problems and or opportunities was another option. The key here was to find out what the problems that companies were having. The online entrepreneur could go into companies and ask what the major problems companies were having and then find creative software solutions.

An excellent example of this was the story of Airbnb. After the founders of Airbnb, Brian Chesky and Joe Gebbia moved to San Francisco in 2007, they realized that they could not afford the rent for their apartment. So, they decided to supplement their rent through putting an air mattress in their living room and turning it into a bed and breakfast (Lagorio, 2010). After adding a technology partner, Nathan Blecharczyk, they created a website for those seeking short-term housing. In 2017, the company had over \$2.6 billion in sales.

### **Advertising**

The global digital advertising industry had sales of \$192 billion in 2017 (Johnson, 2017). Advertisers paid content providers and technology companies to place advertising in front of the end consumer. Consumers were then influenced by the advertising. The money companies made from selling products was partly used to fund the advertising. The better a publisher was at attracting valuable users, the more advertisers paid them to reach consumers. Advertising provided consumers free content. It paid publishers to make content users want to read, and it helped advertisers grow their business. Popular websites and free online games (e.g., Farmville and other Facebook games) have made quite a bit of money from ads.

### **Blogging**

Blogging is an online business model that uses content to educate and market products and/or services. Blogs tend to have two parts: They create content and update it constantly. They also allow users the ability to engage. Blogs are commonly used in social media because it

allows users to comment. Blogging allows online businesses to create trust and rapport with its potential customers. Blogging also allowed online entrepreneurs the ability to create cutting edge content to attract potential customers. Potential customers which came to a blog were more likely to spend money.

The process of creating a blog was easy. However, as more and more entrepreneurs entered the online marketplace due to the low barriers to entry, it has become increasingly difficult to create a sustainable business solely from blogging. Online entrepreneurs could earn other streams of revenue like selling advertising (Banners), creating affiliate relationships with sites like Amazon and eBay and offering premium services for certain members.

An example of a successful blogging company was TechCrunch, which was a popular blog. Founded in 2005, it was sold in 2010 for \$30 million. The downside of blogging was that it required a lot of time. The most effective blogs utilized SEO, engaged readers, and was updated regularly. The Internet was littered with failed blogs that have not been updated in years. The success of blogging came from new content. That meant generating new ideas for content several times a week. The good news was that you did not have to write it all. Entrepreneurs could hire freelancers and guest writers. Another option was to curate content from others or do an alternative post, such as using video. The payoff was not immediate. One of the biggest frustrations with blogging was that it was time-consuming with little payoff in the beginning. It took time to build up a readership and momentum (Duermyer, 2016).

## Digital Media

There are several products that an online entrepreneur could use to supplement their income. For example, downloading books directly from the Internet is an increasingly popular way to read books. Furthermore, there are specific sites popping up that specialize in audio books (e.g., AudioBooks.com), which were books that were read to purchasers via audio. Audio/electronic books are the wave of the future. Tapping into this arena could prove to be very lucrative for entrepreneurs. The real-time systems of digital media were the perfect facilitator to accommodate the needs of the customer.

Digital media (e.g., newsletters, webinars, podcasts, courses) provided an increasingly popular method of communication via the Internet. Newsletters or chapters in books were often used as enticers to upsell customers to other items like webinars, books, courses. Podcasts were increasingly replacing radio as one of the modern forms of mass communication. New startups like “The Investors Podcast” are popping up and fulfilling niches in their respective fields. Online courses through companies like Coursera, Udemy, Edx could also provide for fruitful outlets for entrepreneurs willing to put together courses for a fee.

## Advanced Business Models

The two most expensive online business models were software and physical products. They both had the largest potential to be very profitable. The two least profitable were affiliate marketing and advertising. Online courses had the possibility to be very profitable. Coaching and consulting were labor intensive and involved fewer potential customers and continuous work. Fees for consultants ranged between \$100s to \$1000s. Some entrepreneurs used a combination of the previously mentioned business models and digitized media.

A few of the most successful digital entrepreneurs like Ramit Sethi used the following model: During stage 1, it was not uncommon to start off as a blogger and use affiliate marketing, advertising, and/or consulting to generate income and build their brand. During this stage, the entrepreneur created free product(s) (e.g., chapter in a book, article, eBook, newsletter, etc.) to obtain the potential customer's email address. The goal was to build a customer data base and then upsell them to Stage 2.

During stage 2, the online entrepreneur upsold the customer to purchase the next level product(s), which may be an eBook, course(s), and/or webinar(s). This requires online marketing expertise.

Stage 3 was the creation of a community to upsell to the next level, which could be a course at a premium price \$500 to as much as \$10,000 a course. Online courses required a lot of up-front work. However, there was less maintenance on the backside.

Ramit Sethi, a very successful online entrepreneur, started his online career as a blogger while he was a Stanford student in 2004. He did this for three years without making any money. Then he wrote an eBook and charged \$4.95 and sold hundreds of the books. He then realized that he could make money online. After writing the eBook, he continued to provide quality content and eventually sold a course for \$497 on how to create an online company. After that class filled up, he doubled the price and never lowered it from \$1,000. Today, he has two web sites and teaches a live course to around 100-120 people anywhere from \$7,500-\$10,000 a person. His strategy was a high end niche.

The selling point would be the interaction with the online entrepreneur and his/her community. This method required patience and perseverance. Potential online entrepreneurs could offer free eBooks, podcasts, and blogs to garner interest and trust. To create a community over time required patience, knowledge, honesty, trust, and extremely hard work.

Stage 4 was the recreation of Stages 2 and/or 3. The ideal situation was to recreate a sustainable level of business over time. This often entailed the creation of new courses and material to keep the interest of potential customers.

## **CREATING AN ONLINE VENTURE**

To create a website, which was compatible with mobile devices, the following steps are needed:

### **Legal Identity & Domain Name Registration**

The online entrepreneur should perform research and then determine what their ideal legal identity should be (e.g., Sole Proprietorship, Partnership, S or C-Corporation, Limited Liability Company (LLC), etc.). It may be wise to consult an attorney to assist you with this or at a minimum go to the Small Business Administration (SBA) for advice. Some universities have free legal clinics that can also assist you with registering with the state and nationally to save you money.

The next step is to create a name for your business. As part of the search you should evaluate the database of the state that the company will be located. Has anyone taken that name? Also, a search should be done on the national level at the United States Patent and Trademark Office (USPTO) to protect your company name or make sure the name is not taken. Then you can register your name.



To obtain the rights for domain names, the online entrepreneur needs to do a search through some websites to make sure the domain names are not already taken; GoDaddy.com and Namecheap.com. Domain names and the names of companies are separate entities. Names can only be trademarked after the business is in use.

Domain names can be very expensive as most of the short catchy names have already been bought by people. Many of them are listed for sale, but they can be extremely expensive and not worth the price. The .com extensions are the most desirable, although other top-level domain extensions (TLDs) are available. Of these, .net, .org, and .gov are the most popular. Industry specific extensions such as .diamonds or .pizza are rapidly gaining ground, since many of these names have not been claimed, making them easy and more affordable to register (Shaheen, 2016).

Ideally, the name needs to be short, easy to say, remember, and unique enough to build a brand (e.g., Apple, Uber). Short names are ideal if you have resources, a strong marketing plan, and a team. However, since most startups do not have much startup capital, it may be wise to opt for a name that describes what you are doing. Additionally, it is recommended that online entrepreneurs protect their personal information through the WHOIS Privacy. This is a protection service offered by most domain name registrars and third-party providers for a small fee. This service prevents other companies and people from sending you spam and protects your personal information.

### **Building an Online Business**

There are three things that online entrepreneurs need to do to build out their website: 1) select which company would host the web site and would it be a shared versus a managed site, 2) determine which platform to use, and 3) decide who would build the website.

The decisions must not be made in isolation. For example, the first decision is to determine what type of site they want and how it will be hosted. Web sites like Wix, Weebly, or Squarespace host web sites under their domain. In other words, you would be renting space from them. They tended to be simpler, separate platforms that tended to be simpler. The second option is creating a WordPress.org website, which is the most popular platform on the web. Approximately 22% of all websites are on WordPress. The final option is to outsource the work to a company and have them either build a smaller site or a larger more custom site.

The online entrepreneur must also determine if he/she wants a shared versus a self-managed plan on their host site. They could always move up to a managed plan from a shared plan, which was better for more established sites that could handle more traffic. The entrepreneur's decision should be based on several factors including the amount of time, money, and technical expertise that they had. The advantages and disadvantages of each option are below.

### **Build Website Themselves: Wix.com**

Wix.com is a cloud-based web development platform in which 92 million websites were housed. Wix.com is a cheaper alternative that is innovative. It also has artificial design intelligence, which allows customers to build their sites easily with up-to-date designs. It is simple and easy to use. Wix.com's basic plans were free, but premium plans costs ranged from \$5-25 a month. Bandwidths ranged from 1 gigabyte of bandwidth and 500 megabytes of storage,

to unlimited bandwidth with 20 gigabits of storage. However, Wix.com only had 500+ themes. Their websites are simple, and users did not own their real estate. Their site would be located on the Wix.com server, which is equivalent to renting a house. Finally, Wix.com did not give you much flexibility; you could not move your site to another site like WordPress.

### **Build Website Themselves: WordPress.org**

WordPress was founded in 2003 and was a free open-source content management system (CMS) that created websites. WordPress needed to be hosted and installed. Additionally, plugins, models, and/or extensions also need to be installed. It had over 2,000 themes and 50,000 plugins to choose from.

WordPress is the most popular Content Management System (CMS) in the world and is used by nearly 75 million websites. The company has more than 409 million people who view more than 23.6 billion pages each month. WordPress users create 69.5 million and 46.8 million posts and comments every month. It powers more than 22% of the world's websites.

On the downside, developing a site on WordPress could be difficult. It took time and resources. There was no central place for support without paying, although your host could provide some support.

### **Build the Website Through Outsourcing**

From talking with a few firms in industry in the Northwest, potential online entrepreneurs could develop a smaller web site on Wix.com, for \$2,000. However, a site on Wix.com would not be that different from other sites. The second option was to create a website that was more popular using WordPress with a much stronger custom design. If outsourced to local firms, this would cost \$6,000 to develop, not counting recurring fees for addons. It was not uncommon for firms that wanted to create web sites for entrepreneurs to also charge for the hosting, email service, and Secure Sockets Layer (SSL) for annual fees of anywhere from \$600 and above. Secure Sockets Layer (SSL) is the standard security technology for establishing an encrypted link between a web server and a browser. Google requires websites to have SSLs if they want to be ranked high. Outsourcing firms also stated that they could provide marketing assistance such as search engine optimization (SEO), emails, and building leads starting at \$500 a month.

### **Law**

If you were going to sell either products and/or services on your website, you need to be aware that there are rules and regulations for conducting e-commerce. Consumer transactions and the collection of customer data were protected by the FTC or The Federal Trade Commission. The FTC also deals with commercial emails, online advertising, and consumer privacy. Their online advertising and marketing website provided an overview of e-commerce rules and regulations.

Websites also had to abide to Internet laws by having a privacy and terms of agreement statements. Websites need to have a statement on the Digital Millennium Copyright Notice Act (DMCA). The privacy rule required websites to disclose privacy notices that covered their sharing practices with third parties. Terms and Conditions Agreement policies were a set of rules and guidelines that users had to agree upon to use their website. Finally, the DMCA was a group



of laws that protected copyrighted content on digital mediums. The DMCA was the go-to source for copyright infringement issues that arose out of the proliferation of digital media.

### **Ecommerce Software/Merchant Account**

In the world of ecommerce, online transactions had to be facilitated. The best mechanism was to find software that handled all elements of this phase. There were two ways to do this. First, you could set up a gateway payment system, like PayPal. However, this only handled the collection of money. There was no real definitive way to see the chain of pending transactions or allow for refunds to customers. Additionally, it included transaction fees for all purchases. Using this method, incurred extra fees to the entrepreneurs.

There were programs out there that provided their own gateway payment system (e.g., WooCommerce, Square) and the management of merchant accounts. A merchant account allowed for the collection of credit and debit cards, an ability to know the pending transactions, and the functionality of doing refunds or sales discounts on accounts.

### **Financing Required**

In conclusion, the costs that are associated with creating your own online web site are variable. Here are the minimum costs that would be involved in creating your own online business (Excluding your computer): 1) \$10.95 a year for the domain name registration through Namecheap.com; 2) \$4 a month for the host, Hostgator, for the first six months, \$10.95 a month after this; and 3) \$75 a year to register their new LLC (Assuming you chose this identity and filed yourself), 4) \$39 for SSL (Secure Sockets Layer) certificate and 5) \$109 a year for a Dropbox account to back up your website and content. If you feel you do not have the technical expertise to create your own site, then it is advisable to visit with several web site development firms and determine the costs.

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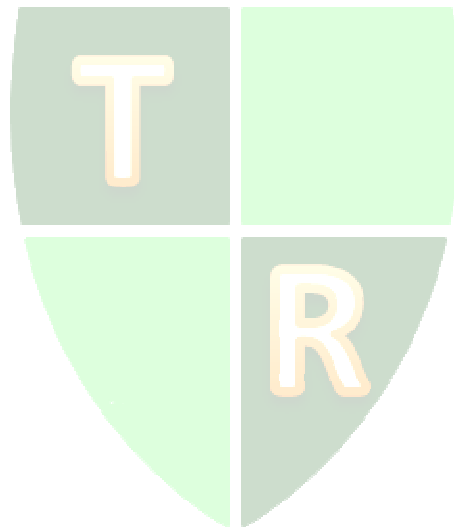
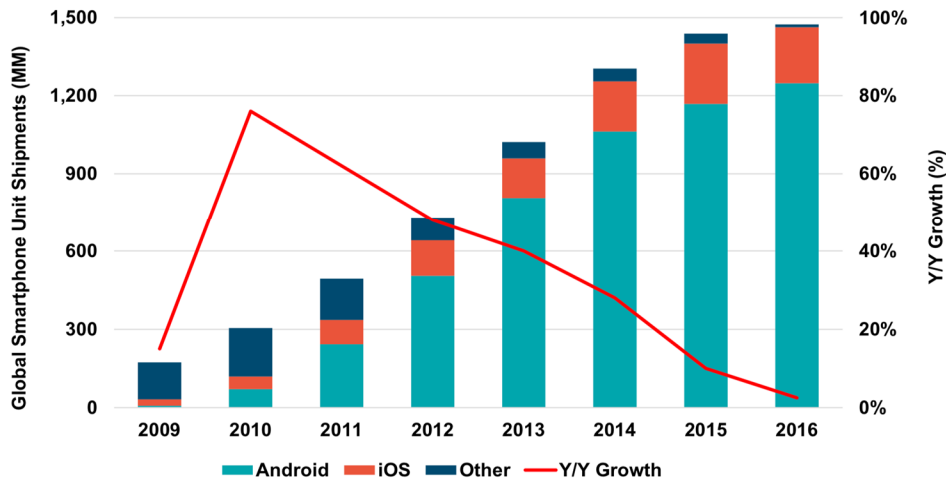


Figure 1. Smartphone Unit Shipments by Operating System (MM), Global, 2009-2016



Source: KPCB Internet Trends 2017

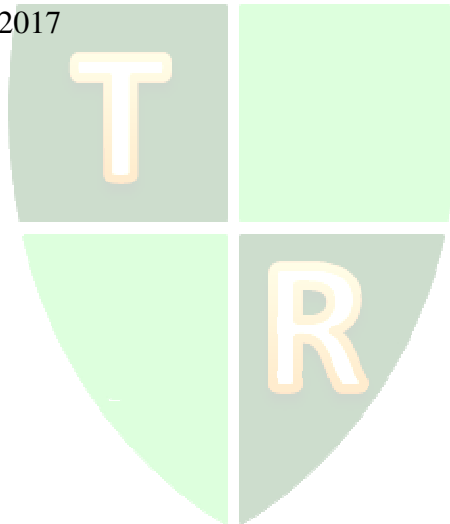
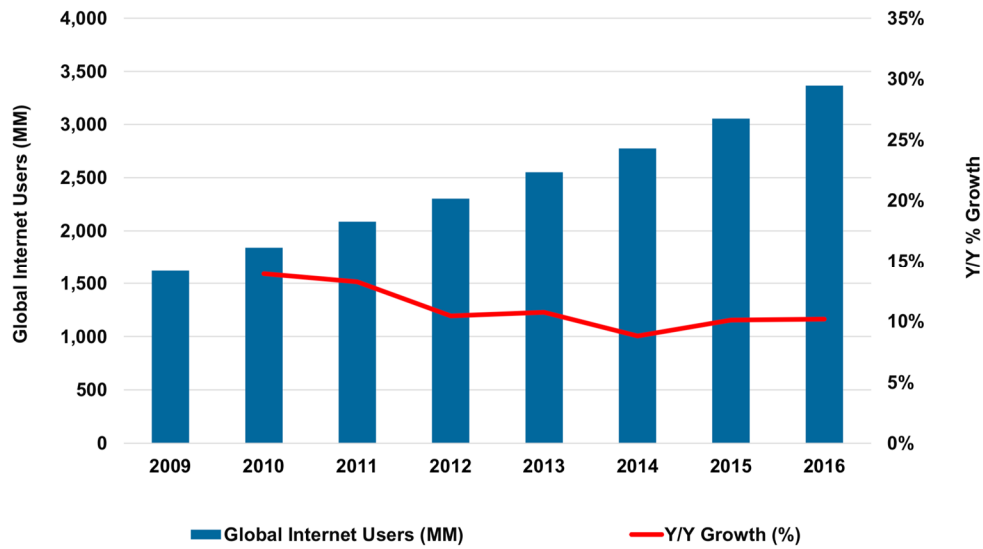


Figure 2. Global Internet Users (MM), 2009-2016



Source: KPCB Internet Trends 2017

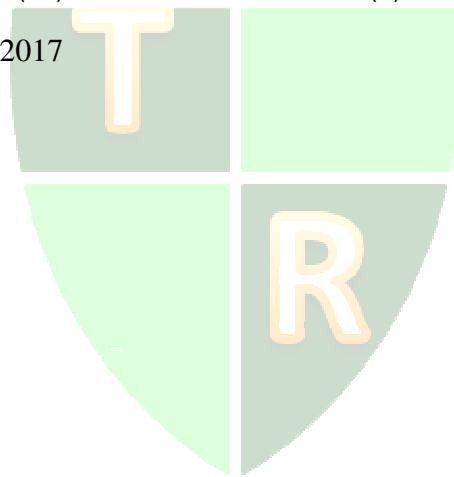
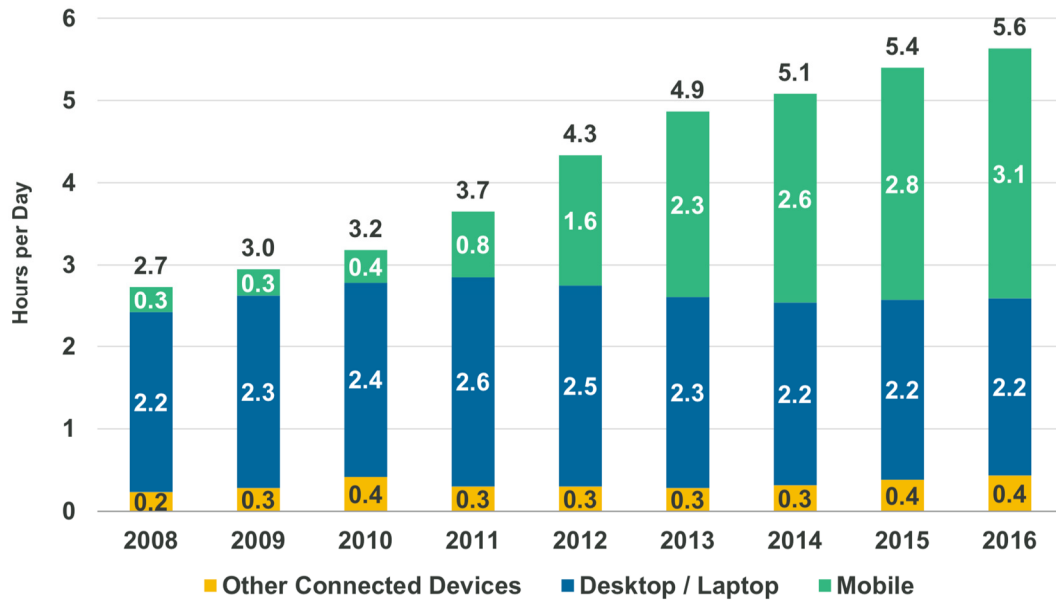


Figure 3. Time Spent per Adult per Day with Digital Media, USA, 2008-2016



Source: KPCB Internet Trends 2017

