

### Introduction to E-Commerce

https://www.thefulfillmentlab.com/blog/history-of-ecommerce



- Definition of E-Commerce
- History of E-Commerce
- ☐ Benefits and Limitation of E-Commerce
- ☐ Future of E-Commerce
- ☐ E-Commerce in Asia and in Philippines



## **DEFINITION OF ECOMMERCE**

https://www.thefulfillmentlab.com/blog/history-of-ecommerce https://www.investopedia.com/terms/e/ecommerce.asp#toc-what-is-electronic-commerce-ecommerce



# What is E-Commerce?

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➤ E-commerce, in full electronic commerce, maintaining relationships and conducting business transactions that include selling information, services, and goods by means of computer telecommunications networks.



- ➤ E-commerce usually refers only to the trading of goods and services over the Internet.
- ➤ E-commerce is increasingly being viewed as a great equalizer, offering boundless opportunities and possibilities, without discrimination, in the digital economy. (Phil E-Commerce Roadmap)



#### Internet

worldwide network of computer networks built on common standards

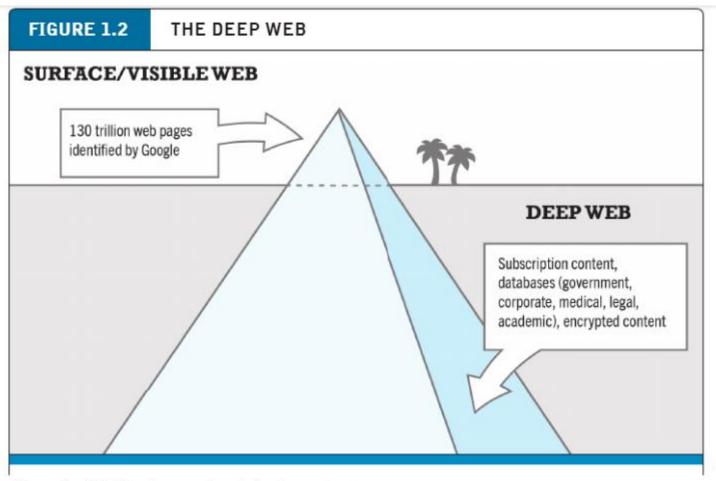
#### World Wide Web (the Web)

an information system running on Internet infrastructure that provides access to billions of web pages

#### mobile platform

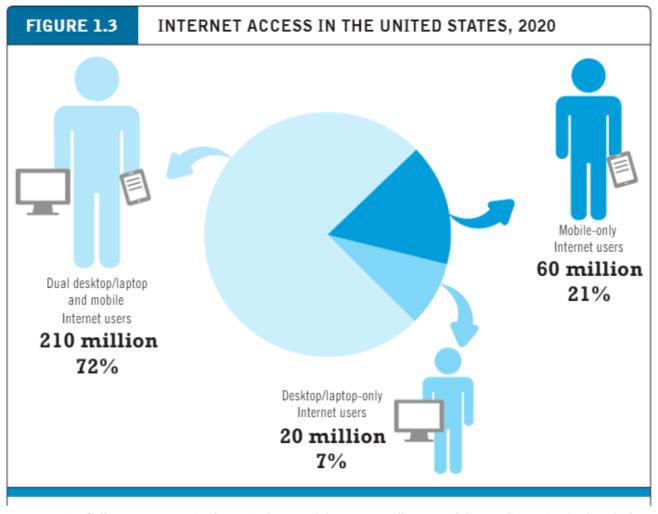
provides the ability
to access the Internet
from a variety of
mobile devices such as
smartphones, tablets, and
other ultra-lightweight
laptop computers





The surface Web is only a small part of online content.





Over 72% of all Internet users in the United States (about 210 million people) go online using both a desk-top/laptop and mobile device. About 21% (about 60 million) only go online by using a mobile device. Just 7% (about 20 million) use only a desktop or laptop computer to access the Internet.

Story or Committee

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#### MAJOR TRENDS IN ECOMMERCE

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#### BUSINESS

- The Covid-19 pandemic fuels a surge in retail e-commerce and m-commerce.
- The mobile app ecosystem continues to grow, with over 235 million Americans using smartphone apps and over 145 million using tablet computer apps in 2020.
- Social e-commerce, based on social networks and supported by advertising, emerges and continues to grow, and is estimated to generate about \$30 billion in 2020.
- Local e-commerce, the third dimension of the mobile, social, local e-commerce wave, also is growing in the United States, fueled by an explosion of interest in on-demand services such as Uber, Instacart, DoorDash, and others.
- B2B e-commerce revenues in the United States are expected to reach almost \$8 trillion.
- On-demand service firms attract billions in capital, garner multi-billion dollar valuations, and show explosive growth. Although companies operating in the travel industry, such as Uber and Airbnb, are severely impacted by the Covid-19 pandemic, others, such as Instacart and DoorDash, which operate in the grocery and restaurant delivery areas, grow.
- Mobile advertising continues growing at astronomical rates, accounting for almost 70% of all digital ad spending.
- Small businesses and entrepreneurs continue to flood into the e-commerce marketplace, often riding on the infrastructures created by industry giants such as Apple, Facebook, Amazon, Google, and eBay.



#### TECHNOLOGY

- A mobile computing and communications platform based on smartphones, tablet computers, wearable
  devices, and mobile apps becomes a reality, creating an alternative platform for online transactions, marketing,
  advertising, and media viewing. The use of mobile messaging services such as Facebook Messenger, WhatsApp,
  and Snapchat continues to expand, and these services are now used by almost 45% of the U.S. population.
- Smart speakers such as Amazon Echo and Google Home become increasingly popular, providing an additional platform for e-commerce.
- Cloud computing completes the transformation of the mobile platform by storing consumer content and software on "cloud" (Internet-based) servers and making it available to any consumer-connected device from the desktop to a smartphone.
- The Internet of Things (IoT), comprised of billions of Internet-connected devices, continues to grow exponentially.
- As firms track the trillions of online interactions that occur each day, a flood of data, typically referred to as big data, is being produced.
- In order to make sense out of big data, firms turn to sophisticated software called business analytics (or web analytics) that can identify purchase patterns as well as consumer interests and intentions in milliseconds.

#### SOCIETY

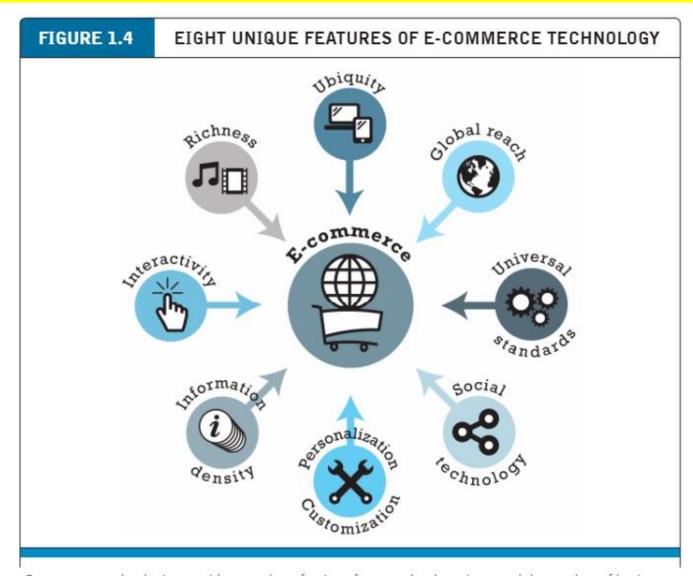
- User-generated content, published online as social network posts, tweets, blogs, and pins, as well as video and photo-sharing, continues to grow and provides a method of self-publishing that engages millions.
- Social networks encourage self-revelation, while threatening privacy, as Facebook comes under fire for allowing third parties such as Cambridge Analytica, device makers, and app developers to mine its database of user information without user consent.
- Concerns increase about increasing market dominance of Facebook, Amazon, and Google, leading to calls for government regulation.
- Conflicts over copyright management and control continue, but there is substantial agreement among online distributors and copyright owners that they need one another.
- The U.S. Supreme Court rules that online businesses must collect state sales tax, raising costs for individuals and small businesses that sell online.
- Surveillance of online communications by both repressive regimes and Western democracies grows.
- Concerns over commercial and governmental privacy invasion increase.
- Online security continues to decline as major companies are hacked and lose control over customer information.
- Spam remains a significant problem despite legislation and promised technology fixes.
- On-demand service e-commerce produces a flood of temporary, poorly paid jobs without benefits.



# UNIQUE FEATURES OF ECOMMERCE TECHNOLOGY

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E-commerce technologies provide a number of unique features that have impacted the conduct of business.

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#### TABLE 1.2

# BUSINESS SIGNIFICANCE OF THE EIGHT UNIQUE FEATURES OF E-COMMERCE TECHNOLOGY

E-COMMERCE TECHNOLOGY DIMENSION

BUSINESS SIGNIFICANCE

**Ubiquity**—E-commerce technology is available everywhere: at work, at home, and elsewhere via mobile devices, anytime.

The marketplace is extended beyond traditional boundaries and is removed from a temporal and geographic location. "Marketspace" is created; shopping can take place anywhere. Customer convenience is enhanced, and shopping costs are reduced.

Global reach—The technology reaches across national boundaries, around the earth.

Commerce is enabled across cultural and national boundaries seamlessly and without modification. "Marketspace" includes potentially billions of consumers and millions of businesses worldwide.

Universal standards—There is one set of technology standards.

There is a common, inexpensive, global technology foundation for businesses to use.

Richness—Video, audio, and text messages are possible.

Interactivity—The technology works through interaction with the user.

**Information density**—The technology reduces information costs and raises quality.

Personalization/Customization—The technology allows personalized messages to be delivered to individuals as well as groups.

**Social technology**—User-generated content and social networks.

Video, audio, and text marketing messages are integrated into a single marketing message and consuming experience.

Consumers are engaged in a dialog that dynamically adjusts the experience to the individual and makes the consumer a co-participant in the process of delivering goods to the market.

Information processing, storage, and communication costs drop dramatically, while currency, accuracy, and timeliness improve greatly. Information becomes plentiful, cheap, and accurate.

Enables personalization of marketing messages and customization of products and services based on individual characteristics.

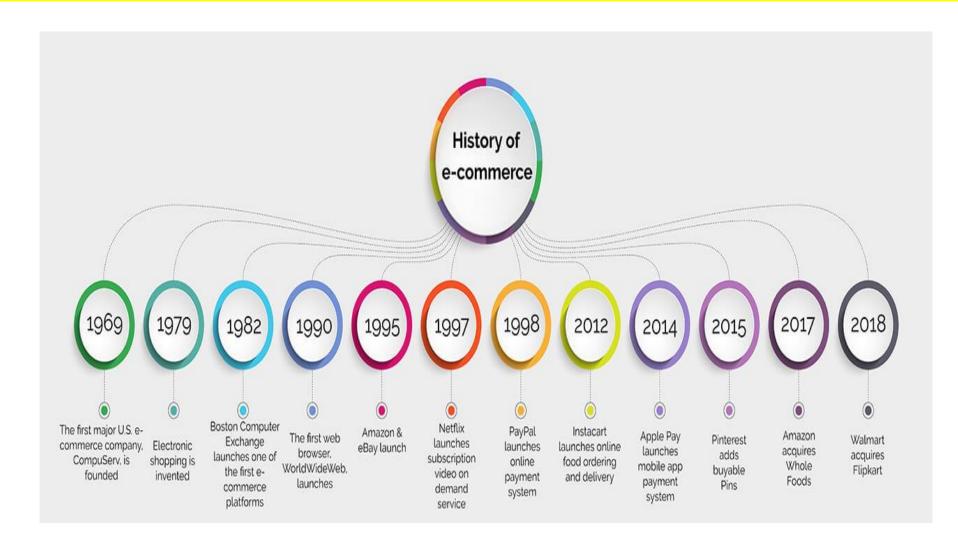
Enables user content creation and distribution and supports development of social networks.



## HISTORY OF ECOMMERCE

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## HISTORY OF ECOMMERCE

#### 1969: CompuServe Founded

Amidst the landmark events of 1969, the history of eCommerce in the USA – and the world – begins in **Columbus, Ohio** with the launch of **CompuServe**, the **first eCommerce company**. Because there's no internet, the company provides computer sharing services to businesses by sending data through phone lines (known as Electronic Data Interchange, or EDI).



CompuServe was the first major commercial internet service in the U.S. It was known for the various innovations that it introduced, including its chat system, forums for various topics, software downloads for many operating systems and for its many online games. It charged hourly rates for usage, so it was quite expensive. It was also mostly a text-based client, and there was limited support for GUI clients.

CompuServe was also known as CompuServe Information Service (CIS).



#### 1972: Computers Facilitate the First Online Sale

You may hear that the first online sale was marijuana, but this is only partially true. While Stanford University and MIT students do use an Arpanet account to make a marijuana sale, money and product still exchanges hands in person. So while a computer facilitates the transaction, it's not truly "sold over the internet."



#### 1976: Online Transaction Processing Introduced

As our nation celebrates its bicentennial, Atalla Technovation and Bunker Ramo Corporation introduce products designed for secure online transaction processing, intended for financial institutions.



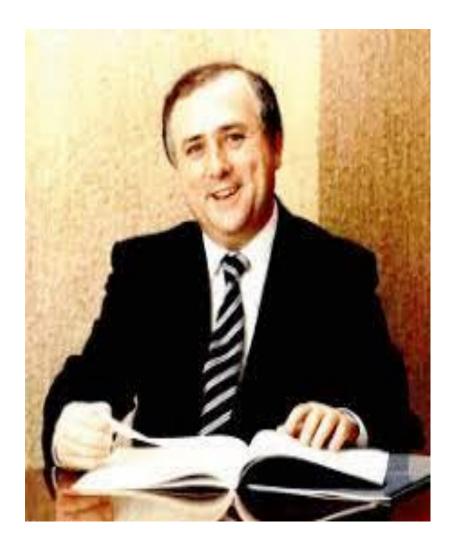
#### 1979: Electronic Shopping Invented

Ten years after the founding of CompuServe, British inventor **Michael Aldrich** demonstrates how electronic shopping could work by connecting a modified television to a transaction-processing computer via telephone line.



#### 1979: Electronic Shopping Invented





The Inventor of ONLINE SHOPPING giving the "concept of teleshopping" which revolutionizes the way businesses happen.

#### Michael Aldrich



#### 1981:B2B

Thomson Holidays submits the first ever B2B electronic transaction using online technology.



## 1982:Minitel

France Telecom invents Minitel that is considered the most successful pre-World Wide Web Online Service.

The **Minitel** was a videotex online service accessible through telephone lines, and was the world's most successful online service prior to the World Wide Web. It was invented in France.

https://en.wikipedia.org/wiki/Minitel



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# 1983: Electronic Commerce Acknowledged

California State Assembly holds its first hearing on "electronic commerce." Testifying are CPUC, MCI Mail, Prodigy, CompuServe, Volcano Telephone, and Pacific Telesis. A year later, California's Electronic Commerce Act would pass, imposing certain requirements on systems designed "to conduct the purchase of goods and services via a telecommunications network."



# 1984: CompuServe Opens the Electronic Mall

One of the first examples of online retail, CompuServe introduces the Electronic Mall in 1984, allowing its users to purchase products from approximately 100 different merchants.

Format ACS X 12 provides a dependable means to conduct electronic business.

Gateshead SIS/TESCO is the first B2C Online Shop



# 1984: CompuServe Opens the Electronic Mall





### **1985: NISSAN UK**

Nissan UK sells cars and finance with credit checking to customers online from dealers' lots.



# 1987: SWREG (Secure Payment)

Swreg creates the first electronic Merchant account to let software developers sell online.

\*Same as Paypal



# 1989: Peapod

Peapod brings the Grocery Store to the Home PC.

Peapod Online Grocer, LLC is an American online grocery delivery service. By February 2022, it changed its name to Peapod Digital Labs.



### 1990: WorldWideWeb Launches

The first web browser launches by Tim Berners-Lee using a NeXT Computer, which will be a catalyst for online shopping as internet users can quickly find what they're looking for and retailers can reach a broader audience.



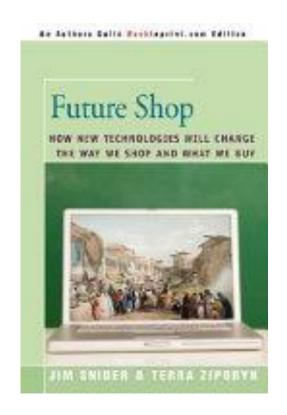
### 1991:NSF

The National Science Foundation (NSF) lifts restrictions on the commercial use of the NET, clearing the way for ECommerce.



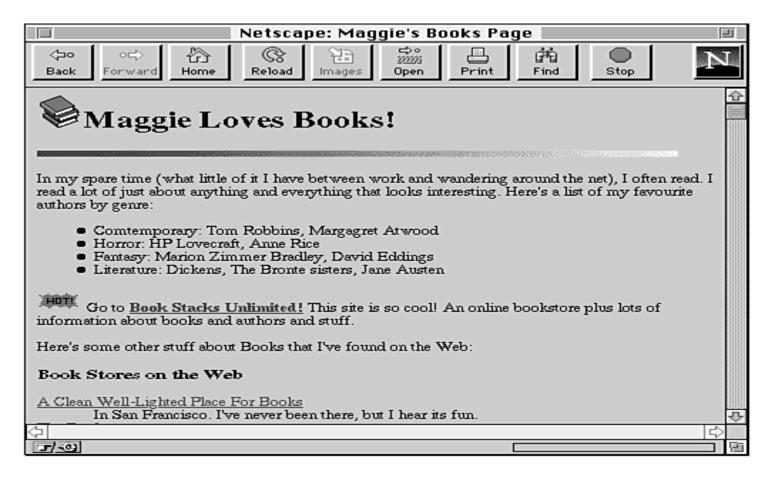
### 1992: E-Commerce Book Published

J.H. Snider and Terra Ziporyn publish "Future Shop: How New Technologies will change the way we shop and what we buy".





#### 1992: E-Commerce Book Published





# 1994: The First Secure Online Transaction is Made

A full ten years after the launch of the Electronic Mall, Netscape 1.0 releases. Featuring a protocol called Secure Socket Layer (SSL), it keeps both the sending and receiving side of online transactions secure through encryption. A number of third-party credit card processing companies launch shortly after as the internet becomes a truly commercial medium.



# 1994: The First Secure Online Transaction is Made

The first ever secure online transaction using encryption takes place on August 11, 1994, when Phil Brandenberger purchases the Sting CD *Ten Summoners' Tales* through NetMarket, as reported in the New York Times story "Attention Shoppers: Internet is Open."



# 1994: The First Secure Online Transaction is Made





# 1995: Amazon, eBay, and the Online Marketplace Boom

Online marketplaces begin opening up. This includes Jeff Bezos' Amazon, initially designed for selling books, and Pierre Omidyar's AuctionWeb, the first online auction site which would soon become known as eBay.



## 1995: Amazon, eBay, and the Online Marketplace Boom



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Like to know when that book you want comes out in paperback or when your favorite author releases a new title? Eyes, our tireless, automated search agent, will send you mail. Meanwhile, our human editors are busy previewing galleys and reading advance reviews. They can let you know when especially wonderful works are published in particular genres or subject areas. Come in, meet Eyes, and have it all explained.

#### YOUR ACCOUNT

Check the status of your orders or change the email address and password you have on file with us. Please note that you **do not** need an account to use the store. The first time you place an order, you will be given the opportunity to create an account.



## 1994-1999: The Launch of Ecommerce Giants 1994: PizzaNet (PizzaHut)

In 1994, PizzaHut created PizzaNet, their online ordering service. Not only did it allow customers to order from the menu, but it also allowed them to customize the pizza.



## 1994-1999: The Launch of Ecommerce Giants 1994: PizzaNet (PizzaHut)

Pizza Hut.
Welcome to PizzaNet!
PizzaNet is Pizza Hut's Electronic Storefront and is brought to you by Pizza Hut®and The Santa Cruz Operation® You may click on the Pizza Hut logo on any page to submit comments regarding PizzaNet to webmaster@Pizzahut.COM
If you would like to order a pizza to be delivered, please provide the following information:
Name:
Street Address:
Voice Phone ###-####  (where we can reach you)  Continue
OPEN SYSTEMS SOFTWARE



### 1996: eBay

eBay (initially Auction Web) was launched in 1996. It was one of its kind, being the first online auction website providing a <u>person-to-person marketplace</u>. Buyers would present their products, and customers bid on the items to eventually purchase it.



## 1996: eBay

eBay was free of charge at the start. However, as their traffic hugely increased, <a href="mailto:eBay's founders">eBay's founders</a> were informed that they needed to upgrade their hosting account. This led them to take commissions on bids to fund the website.



### 1996: eBay

Welcome to today's online	
marketplace	Welcome to our community. I'm glad you found us. AuctionWeb is dedicated to bringing together buyers and sellers in an honest and open marketplace. Here, thanks to our auction format, merchandise will always fetch its market value. And there are plenty of great deals to be found!
the market that brings ouyers and sellers together in an honest and open environment	Take a look at the listings. There are always several hundred auctions underway, so you're bound to find something interesting.
	If you don't find what you like, take a look at our <b>Personal Shopper</b> . It can help you search all the listings. Or, it can keep an eye on new items as they are posted and let you know when something you want appears. If you want to let everyone know what you want, post something on our wanted page.
	If you have something to sell, start your auction instantly.
Welcome to eBay's AuctionWeb.	Join our community. Become a registered user. Registered users receive additional benefits such as daily updates and the right to participate in our user feedback forum and the bulletin board.
	Please read on about the AuctionWeb vision
then, this sit February 26, 1996 expected, and	ay's AuctionWeb on Labor Day, 1995. Since be has become more popular than I ever I began to realize that this was indeed ment in Internet commerce.



## 1997: Apple

Steve Jobs returned to Apple in 1997. His first line-of-action was to improve Apple's presence in the ecommerce world. Apple launched their new-and-improved ecommerce website at the end of 1997 aimed at <u>improving customer experience</u>.



## 1997: Apple





### 1998-1999: Nike

Nike created their first website in 1997. However, it was mainly focused on teaching their consumers more about Nike and their products, rather than selling these products online.

In 1998, the Nike website improved to provide consumers the ability to <u>customize their own Nike shoes</u>. It wasn't until 1999 that Nike moved from editorial content to an online store.



### 1998-1999: Nike

#### nike

basketball running soccer training outdoor

training tips inline skates

open court girls in the





### 1998: PayPal Launches

Originally introduced as Confinity, PayPal debuts as a money transfer tool. By 2000, it would merge with Elon Musk's online banking company and mark its rise in popularity.

Google debuts on eCommerce Yahoo launches Yahoo Stores



# 1999: Global eCommerce reaches \$150 Billion

Startups proliferate, with entrepreneurs being seduced by the get-rich-quick promise of the internet. Of course, the good times won't last forever...

Zappos launches web-only shoe store

Internet retailer debuts

Global Sports launches out-sourced eCommerce Platform

Victoria's Secret debuts site



# 2000: The Dotcom Bust and Online Advertising

The bubble bursts with the NASDAQ falling 75% from March 2000 to October 2002, erasing most of the gains made since the internet took off. Many online and technology entities declare bankruptcy, including <a href="Webvan">Webvan</a>, an early grocery delivery service.



# 2000: The Dotcom Bust and Online Advertising

Despite the bust, Google AdWords is introduced as a way for eCommerce companies to advertise through short-text ad copy and display URLs. Pay-per-click (PPC) advertising efforts of online retailers takes off.



### 2000's: Amazon and Ebay

During that period, tech giants like Amazon and eBay continued to innovate with new features that are now core ecommerce features. Amazon added features like Search Inside the Book, allowing customers to search for words inside books. eBay also added a Live Chat feature to provide support for customers.



### 2000's : Amazon





### 2000's: ebaY





Paypal is acquired by eBay

CSN Stores and NetShops begin selling products through several targeted domains



Apple launches iTunes store

Congress passess the **Can-Spam Act** ---The Controlling the Assault of Non-Solicited Pornography And Marketing Act of 2003 is a law passed in 2003 establishing the United States' first national standards for the sending of commercial e-mail. The law requires the Federal Trade Commission to enforce its provisions.

ZenCart branches from osCommerce



#### 2005: eCommerce Makes a Comeback

eCommerce bounces back from the bust big time, and Cyber Monday (the Monday after Black Friday) is introduced to boost online holiday purchases. In addition, Amazon launches Amazon Prime, giving members free 2-day shipping within the United States and making expedited shipping a consumer expectation.

First Internet Retailer Conference and Exhibition Launches **Youtube** 

Web 2.0 takes hold making sites more interactive. The final release of **VirtueMart** 



# 2006: Online Shopping Platforms Increase

Shopify as we know it today is founded by Tobias Lütke, Daniel Weinand, and Scott Lake, making it easy for merchants to create online stores. Many other <u>eCommerce platforms</u>, such as Magento and BigCommerce, quickly enter the space and make a name for themselves.

Google debuts Google Checkout



- Apple launches the iPhone with full web browsing and downloadable apps, advancing mCommerce (mobile-Commerce)
- Prestashop- free, open-source software



- Amazon introduces TextBuyIt -Making It Fast and Easy for Customers to Shop and Buy on Amazon.com Using Text Messages.
- Magento ecommerce solution is launched by Varien -Magento is an open-source e-commerce platform written in PHP.



Amazon.com and Overstock.com lose New York Online Sales Tax Battle



Magento Mobile App – allowing store owners to create native mobile storefronts apps eCommerce gets serious about social media and more personal conversations taking place between businesses and consumers.



### 2012: Food Shopping Goes Virtual

Though the aforementioned Webvan and other grocery delivery services <u>failed</u> or struggled in the past, food shopping finally finds its groove in 2012, with the founding of Instacart. Instacart sends shoppers to local stores to pick out groceries that consumers order online. Today, with advances in cold warehousing and delivery, online food shopping is big business.

Also in 2012, fulfillment solutions provider The Fulfillment Lab is founded by Rick Nelson, giving eCommerce business owners further insight into their inventory, new methods of customizing packaging, and more ways to increase sales.



# 2017: Ecommerce Remains Unstoppable

 As brick-and-mortar sales decline, global ecommerce transactions soar, generating \$29.267 trillion, including \$25.516 trillion for B2B transactions and \$3.851 trillion for B2C sales.



### 2020: The COVID-19 Boost

The coronavirus pandemic forces many physical stores to close their doors, and lockdowns keep many citizens quarantined at home. To purchase essentials and combat boredom, people embrace online shopping. According to data from IBM's U.S. Retail Index, the pandemic accelerated the shift away from physical stores to digital shopping by roughly five years.

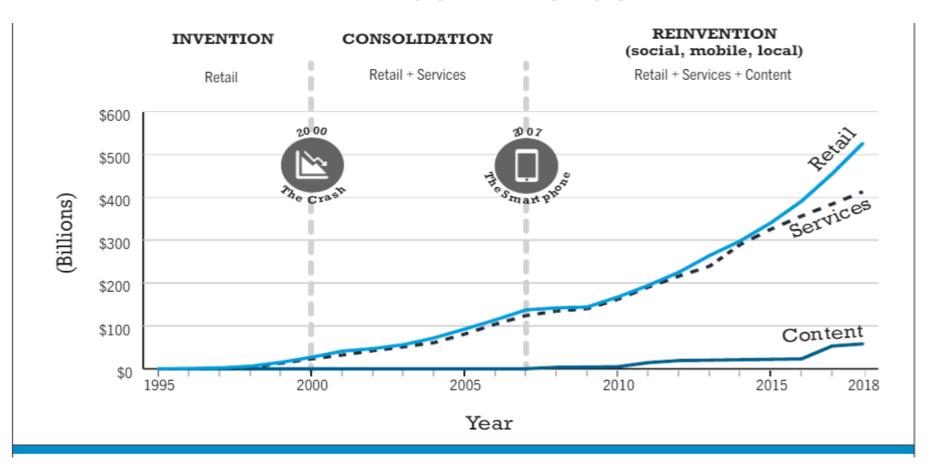


### The Future of Ecommerce

 The future of eCommerce is a bright one! In the United States, eCommerce sales are expected to overtake in-store sales by 2024. However, as legacy wholesalers go online and global retail giants like Walmart expand their ecommerce initiatives, digital competition will only grow. In addition, competitors in product categories that aren't traditionally in demand online, such as household essentials, health, and personal care items, will also be competing for ecommerce shoppers.



# Periods in the Development of Ecommerce





#### disintermediation

displacement of market middlemen who traditionally are intermediaries between producers and consumers by a new direct relationship between producers and consumers

#### friction-free commerce

a vision of commerce in which information is equally distributed, transaction costs are low, prices can be dynamically adjusted to reflect actual demand, intermediaries decline, and unfair competitive advantages are eliminated



### **Evolution of Ecommerce**

1 9 9 5 – 2 0 0 0 I N V E N T I O N	2 0 0 1 – 2 0 0 6 C O N S O L I D A T I O N	2 0 0 7 – P R E S E N T R E I N V E N T I O N
Technology driven	Business driven	Mobile technology enables social, local, and mobile e-commerce
Revenue growth emphasis	Earnings and profits emphasis	Audience and social network connections emphasis
Venture capital financing	Traditional financing	Return of venture capital financing; buy-outs of startups by large firms
Ungoverned	Stronger regulation and governance	Extensive government surveillance
Entrepreneurial	Large traditional firms	Entrepreneurial social, mobile, and local firms
Disintermediation	Strengthening intermediaries	Proliferation of small online intermediaries renting business processes of larger firms
Perfect markets	Imperfect markets, brands, and network effects	Continuation of online market imperfections; commodity competition in select markets



### **Evolution of Ecommerce**

Pure online strategies	Mixed "bricks-and-clicks" strategies	Return of pure online strategies in new markets; extension of bricks-and-clicks in traditional retail markets
First-mover advantages	Strategic-follower strength; complementary assets	First-mover advantages return in new markets as traditional web players catch up
Low-complexity retail products	High-complexity retail products and services	Retail, services, and content