



**Molde University College**  
Specialized University in Logistics

# LOG206

e-business

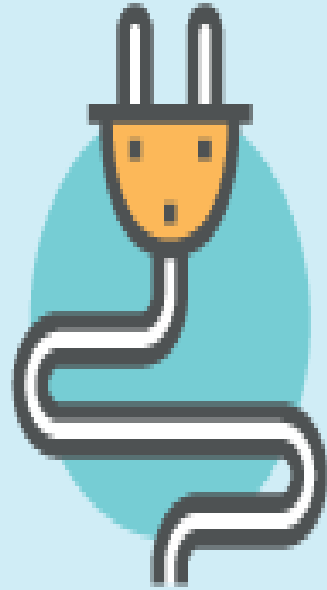
**Department of Logistics**  
**Molde University College**  
**Spring 2018**

# Industrial Revolutions.....



## 1st Industrial Revolution WATER & STEAM

Steam and water power replace human and animal power with machines.



## 2nd Industrial Revolution ELECTRICITY

Electricity, internal combustion engines, airplanes, telephones, cars, radio, and mass production.



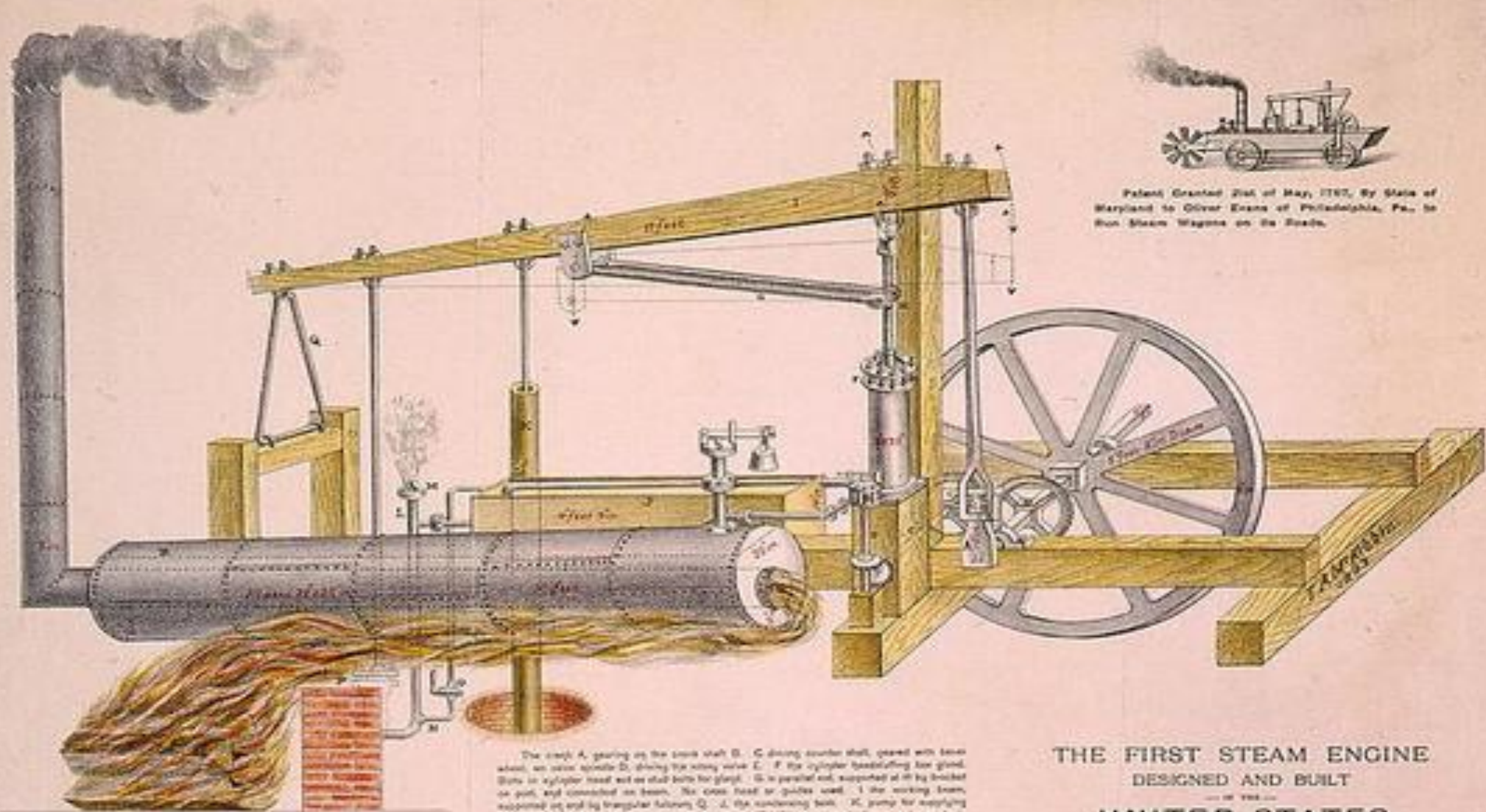
## 3rd Industrial Revolution AUTOMATION

Electronics, the internet and IT used to further the automation of mass production.



## 4th Industrial Revolution CYBER-PHYSICAL SYSTEMS

Driverless cars, smart robotics, materials that are lighter and tougher, and a manufacturing process built around 3D printing.



Patent Granted 21st of May, 1790, By State of Maryland to Oliver Evans of Philadelphia, Pa., to Run Steam Wagons on the Roads.

The crank A, gearing on the crank shaft B. C driving counter shaft, geared with bevel wheel, an water spindle D, driving the rotary valve E. F the cylinder headstuffing box gland. G is in cylinder head and as stuffing box for gland. H is parallel rod, supported at H by bracket on post, and connected on beam. The cross head or guides work. I the working beam, supported up and by triangular fulcrum Q. J the condensing tank. K pump for supplying tank. L is condenser pipe leading to feed pump P. N, water supply from condenser tank. M, a petcock valve, for relieving tank pressure on condenser.

HISTORIC COLLECTION OF AMERICAN INVENTORS.  
DRAWN BY THOMAS MORTIMER.

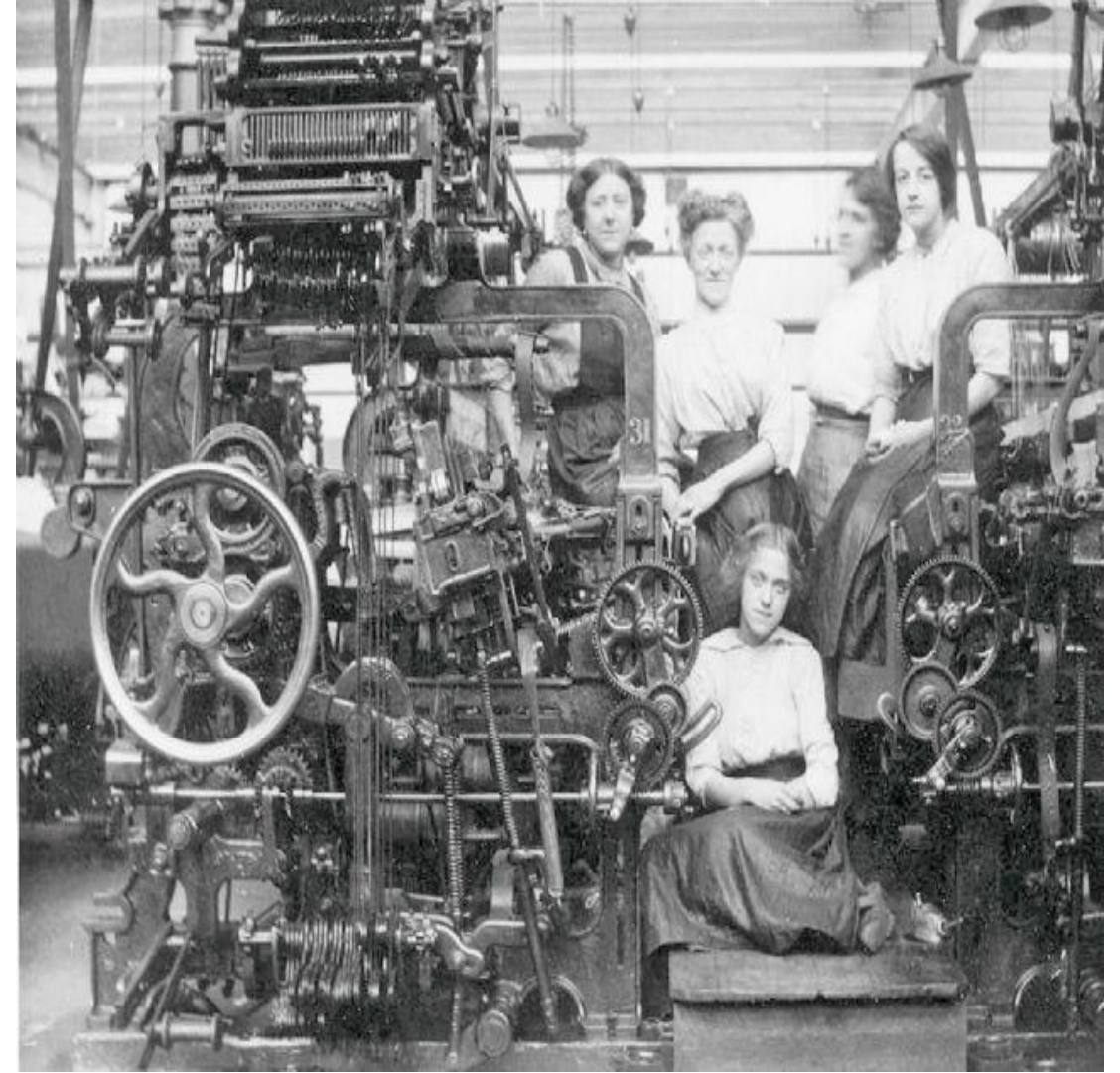
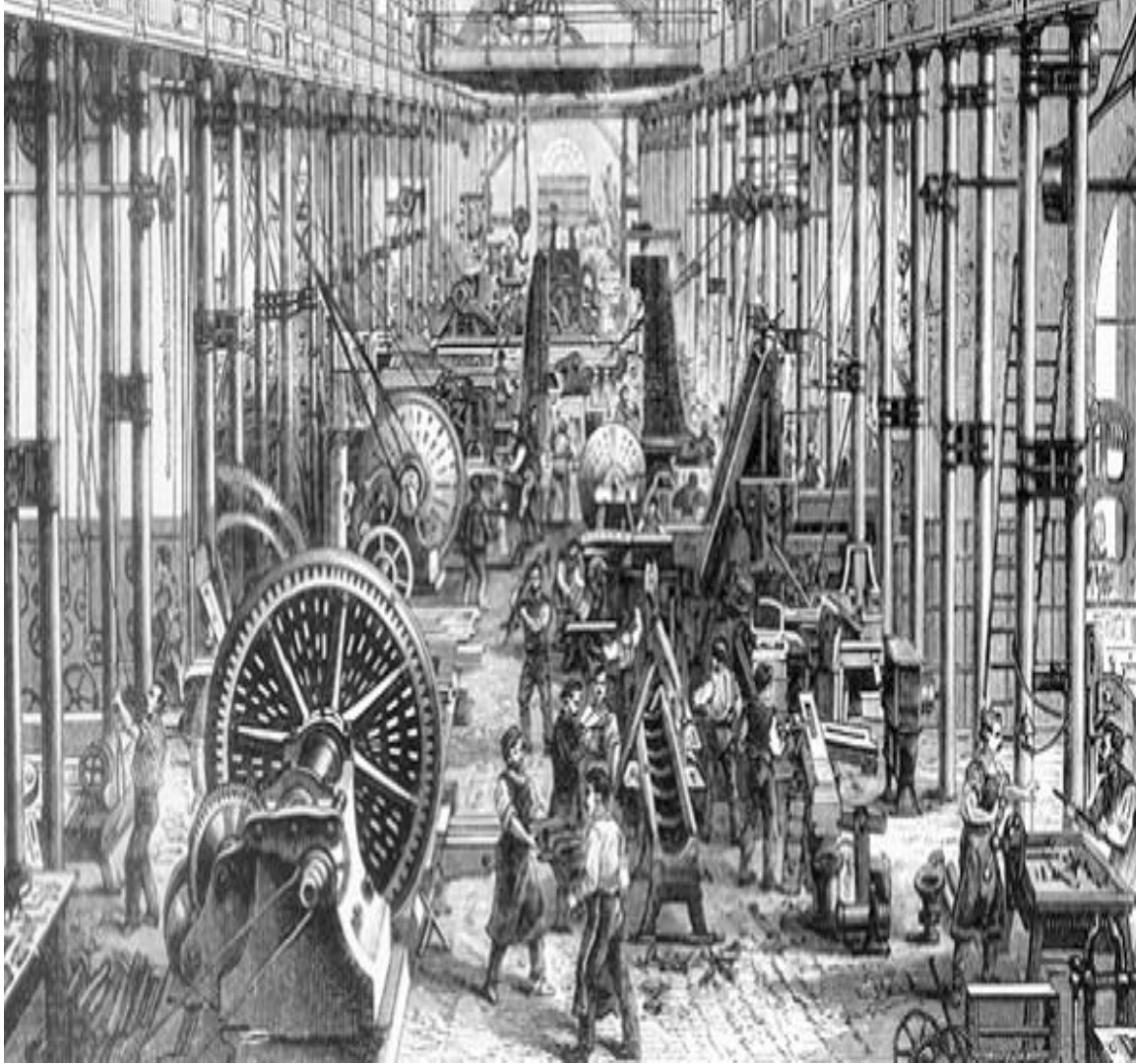
THE FIRST STEAM ENGINE  
DESIGNED AND BUILT

— OF THE —  
UNITED STATES

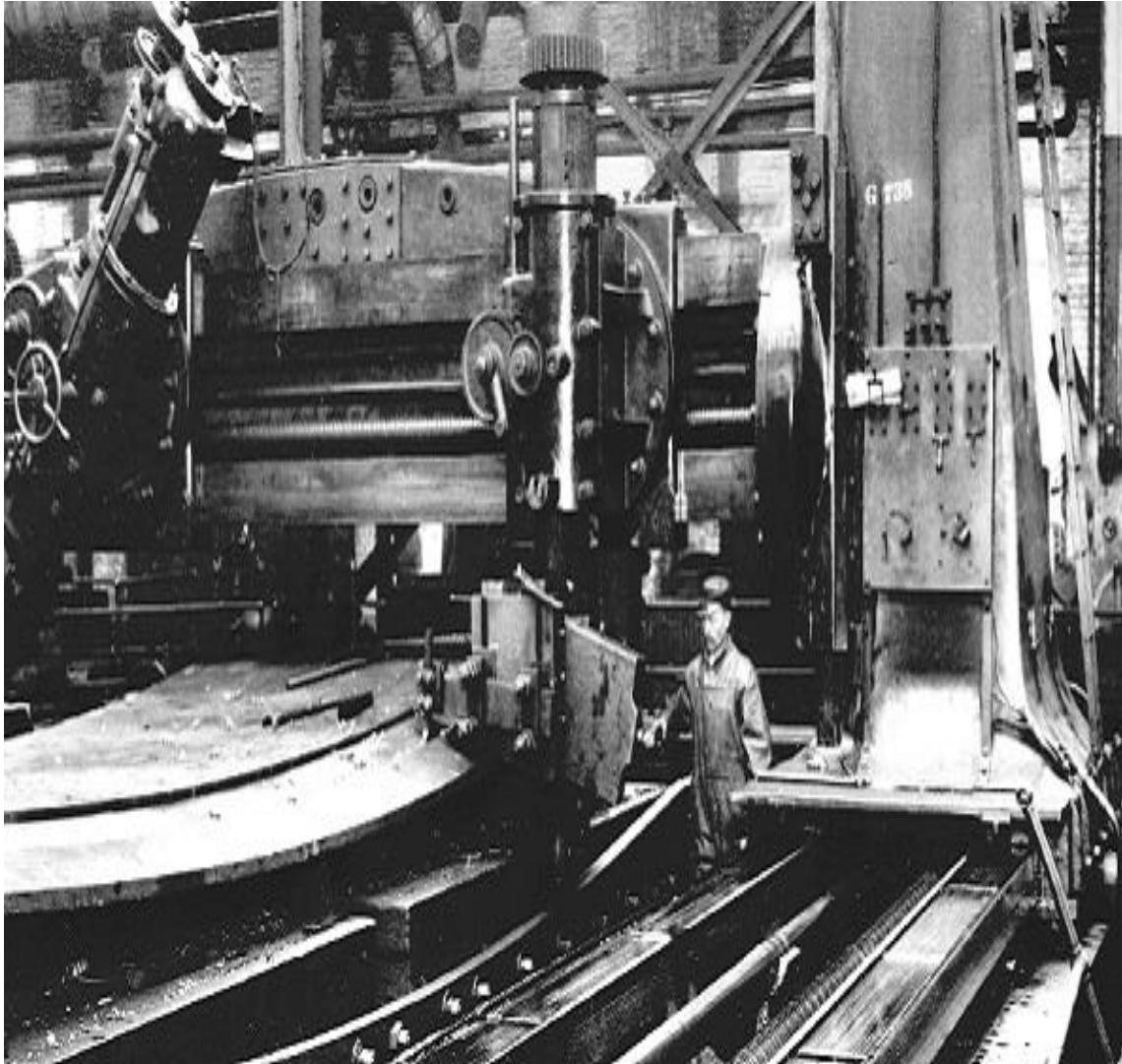
— BY —  
OLIVER EVANS,

— OF —  
PHILADELPHIA, PA., 1801.

# 1<sup>st</sup> Industrial Revolution.....



# 2<sup>nd</sup> Industrial Revolution.....



# the **DIGITAL REVOLUTION**

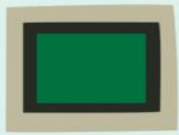
NU Sci takes a look at the inventions and ideas of the historical movement that set the precedent for technology of today.

1991

**1950s – 1970s**



arcade games



home computers



motorola dynatac  
first mobile phone



CD-ROM



digital cameras



world wide web



dial up internet

**1980s**

**1990s**

## **THE RISE OF SOCIAL MEDIA**

### **Six Degrees**

1997-2001



The first social media site, Six Degrees, was named after the “six degrees of separation” theory. Users could create and see each other’s social circles.

### **LinkedIn**

2002 - now



LinkedIn was created for and is still used by professionals to network, find jobs and socialize. Originally, users could only upload their CVs for employers to view.

### **Facebook**

2009 - now



Facebook is currently the top social media site, with more than one billion users. Recently, it has been criticized for its privacy policies — or lack thereof.

### **Twitter**

2006 - now



Twitter allows its users to express themselves in 140 characters or fewer. It popularized the hashtag, and most recently has been a platform for legislation.

### **Myspace**

2005-2009\*



Before losing popularity to Facebook, MySpace was one of the first profile-based social media sites. Although still extant, most users are artists promoting their music.

### **AIM**

1997-2009



AOL Instant Messenger became popular in the late 1990s. AIM also popularized chat robots, which could receive and send messages based on their purposes.

### **Instagram**

2010 - now



Instagram is the most popular photo and video sharing application. It has popularized neologisms like “instafamous” — in reference to someone with a large following.

### **Snapchat**

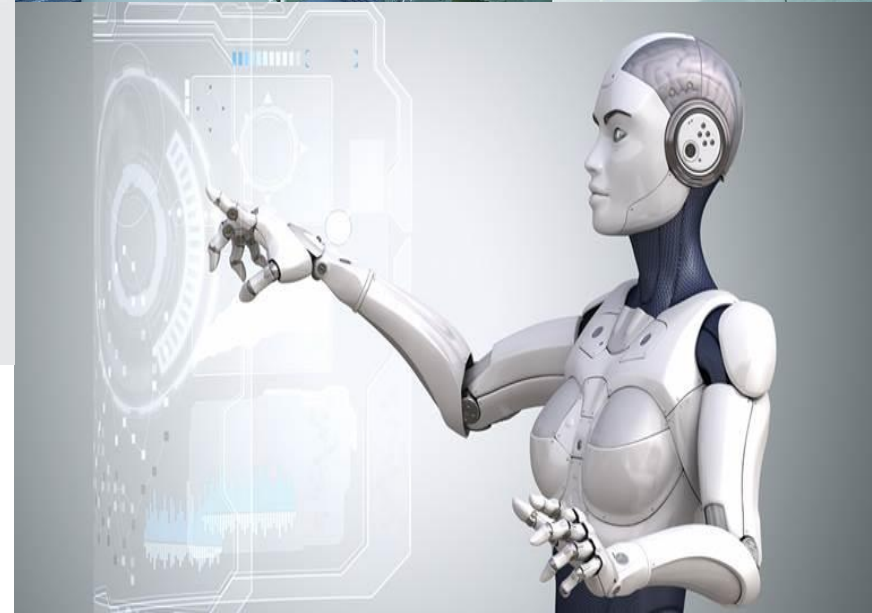
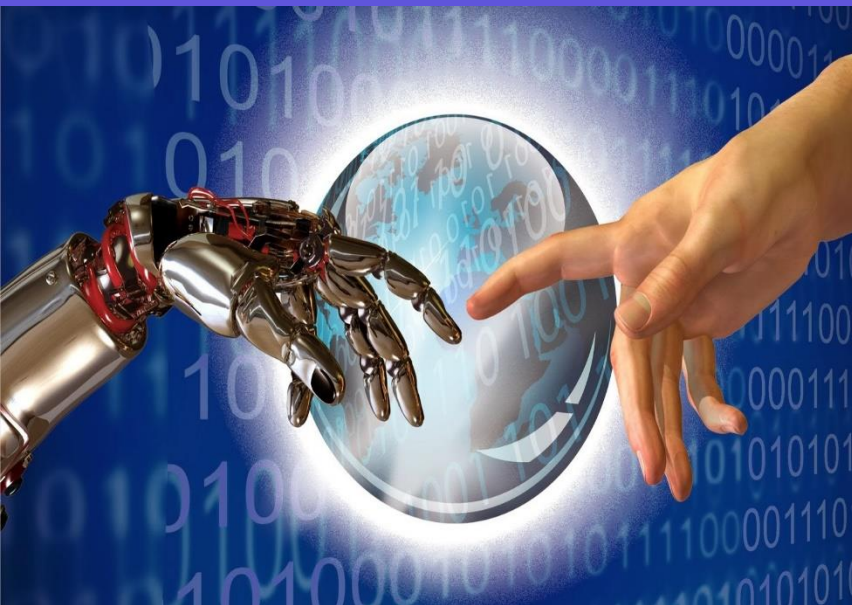
2012 - now



Snapchat skyrocketed in popularity as a platform for self-deleting images. The iconic Snapchat “ghost” was designed after Ghostface Killah of the Wu-Tang Clan.

\*Years show peak popularity; some platforms still exist with a far lower userbase.

# 4<sup>th</sup> ...Fourth Industrial Revolution



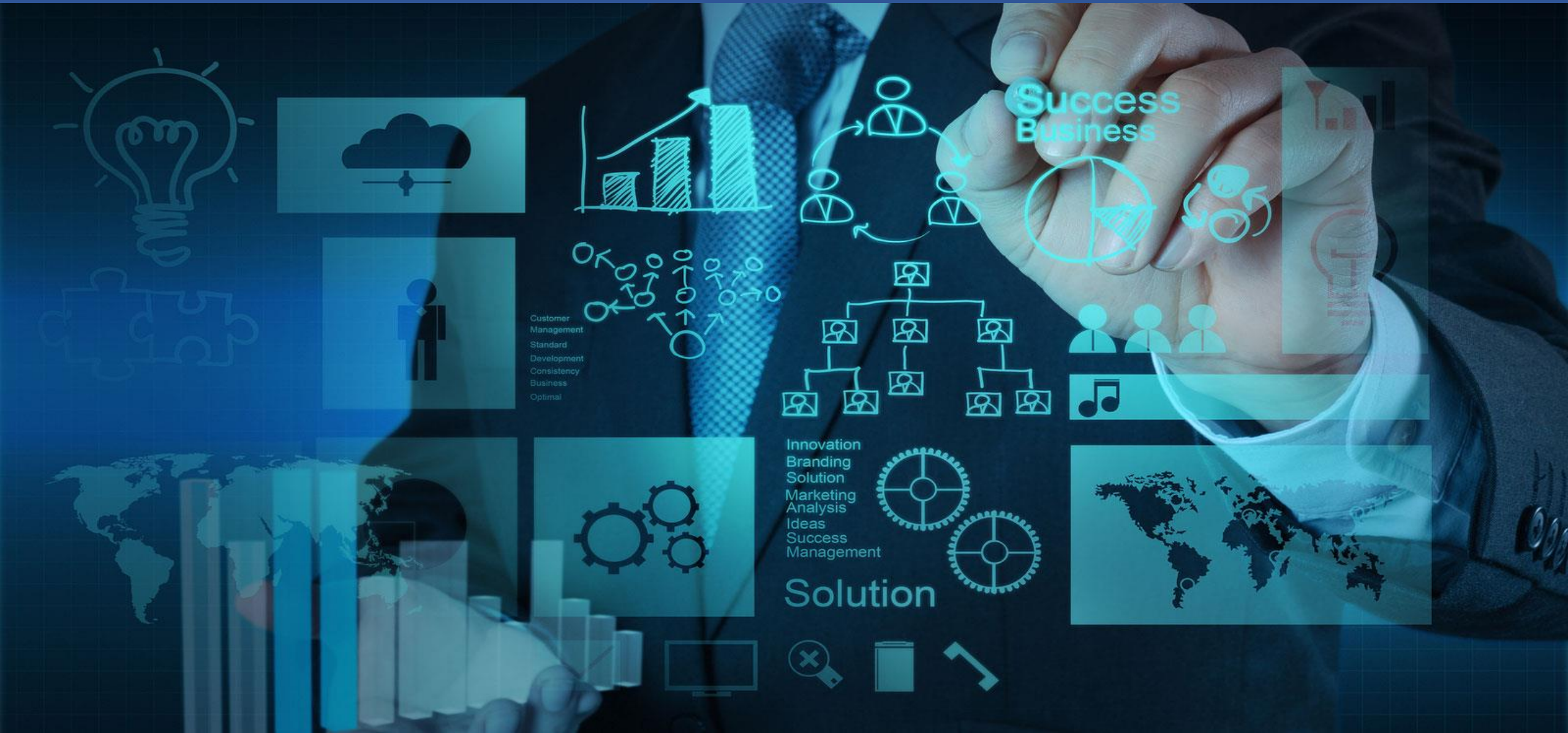
# Digital Revolution....



...has changed every aspect of our lives



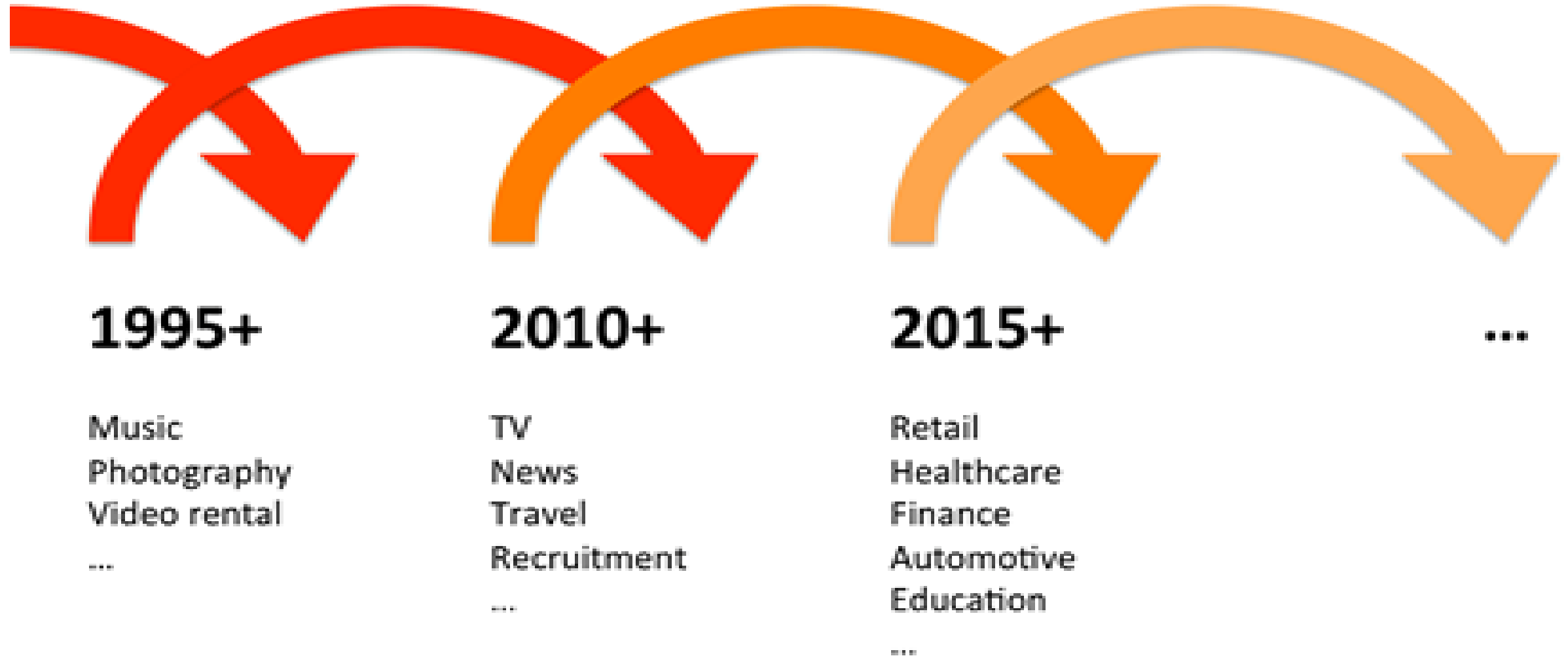
# Enormous Impact on businesses.....



# Disruptive technologies changing the world.



# Waves of Digital Disruption



# Some disrupted businesses.....

## Digital disruptor

## Disrupted business

OTAs such as Expedia

Traditional travel agents

Online bookstores such as Amazon

Traditional booksellers

Airbnb and HomeAway

Accommodation providers

Uber, Lyft, and other car-sharing apps

Traditional taxi companies



Tom Goodwin 

«In 2015 Uber, the world's largest taxi company owns no vehicles, Facebook the world's most popular media owner creates no content, Alibaba, the most valuable retailer has no inventory and Airbnb the world's largest accommodation provider owns no real estate.»



**Disruptive technologies**  
=  
**New opportunities**

facebook

amazon

ebay

Google

Pinterest

tinder

LinkedIn

UBER

YouTube

Spotify



Dropbox

Alibaba.com

Instagram

JustPark

twitter

airbnb

Expedia

priceline.com

WIKIPEDIA



zalando

WhatsApp

tripadvisor

**Disruptive technologies**  
=  
**New opportunities**

Not all digital startups make it.....



**more than 90% of all Internet business start-ups end in failure within the first 120 days.... NINETY PERCENT!**

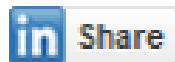


# Digital Transformation Projects Have an 84% Chance of Failure; Are You Ready to Failure or Succeed?

Natalie Petouhoff - May 22, 2017

👁 445 views

💬 2



## Would You Invest If You Knew the Investment Had a High Likelihood of Failure?

If I were to tell you that I had an investment opportunity for you and the probability of you making money was 16% or less, how likely would you be to invest in it? But if I told you that the investment opportunity had a 90% chance of returning your investment, might you be more likely to want to invest?

What's interesting is that digital transformation is all around us. We can't help but be impacted in our person lives, from smart phones, smart TVs, apps (think taxi's vs. Lyft), Siri, Alexa and Google Home. In business, it's clear that customers want to engage with business in digital and mobile channels. Businesses need to make the transition to be competitive and survive. Yet according to Consultancy.uk\* and Bruce Rogers\*\* who wrote *Profitable Brilliance: How Professional Service Firms Become Thought Leaders*, 84% of businesses undergoing digital transformation are likely to fail.

**The More Things Change, The More They Stay The Same**

The image features a pair of red velvet curtains pulled back to reveal a solid black background. The curtains are positioned on the left and right sides of the frame, with their folds and texture clearly visible. In the center of the black area, the text "Introducing LOG206....." is written in a bold, yellow, sans-serif font. The text is horizontally centered and spans most of the width of the image.

**Introducing LOG206.....**

# Course objective



## **To provide comprehensive introduction to the theory and practice of digital business:**

- Introduction to basic principles of business and their application to digital business
- Approaches to developing digital business strategy and applications
- Examining practical management issues involved in creating and maintaining digital business

# Learning Outcomes



**Upon fulfillment of this course a successful candidate shall:**

- Be aware of the basic principles of business and their application in digital business
- Be able to craft and evaluate digital business strategy and applications
- Be able to manage implementation digital business strategy

# Course content

## TEN MODULES

Digital supply chain management	6	1	Introduction
Digital marketing	7	2	Business models for e-commerce
Introduction to Big data analytics	8	3	Macro environment of digital business
Managing digital transformation	9	4	Digital business platforms
Analysis and design	10	5	Digital business strategy

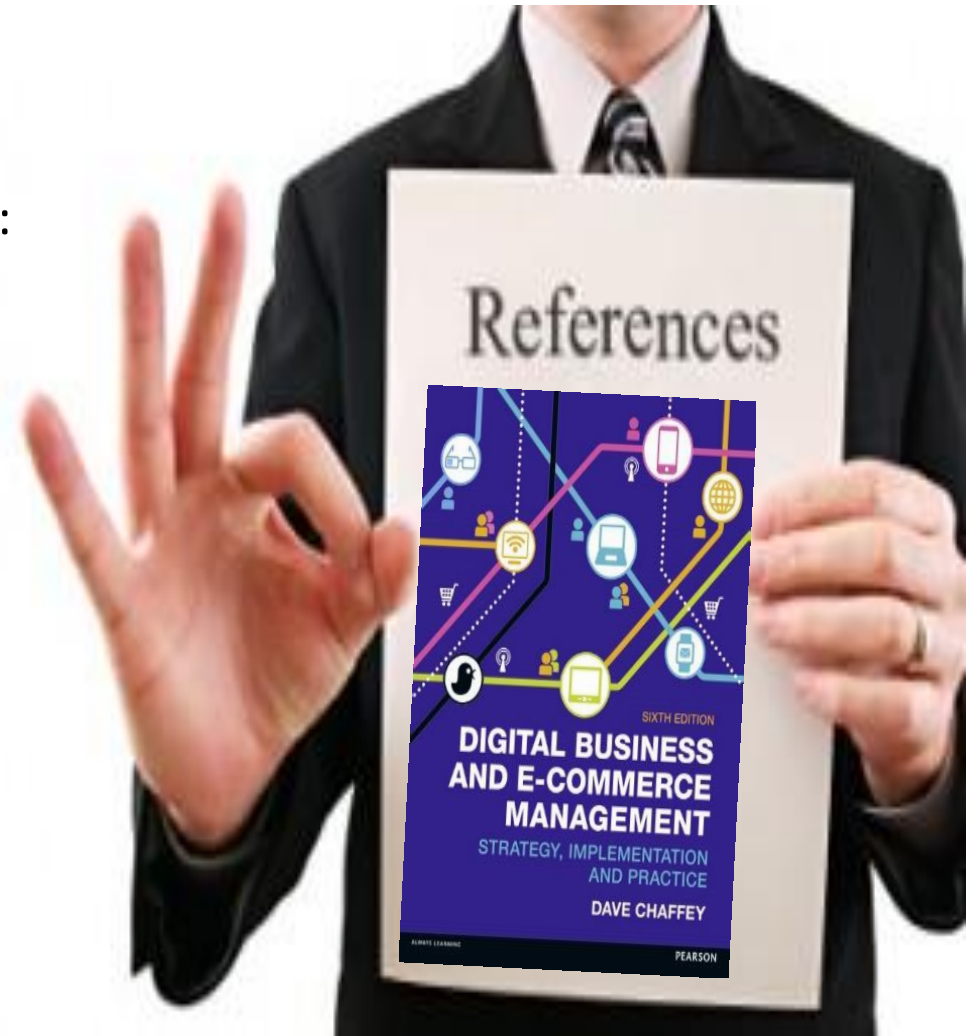
# References

## Textbook:

Chaffey, D (2015). Digital Business and E-Commerce Management: Strategy, Implementation and practice. 6/E. Pearson.

## Supplementary materials:

Supplementary materials will be included in the instructor's notes



## Other sources:

Business Insider: [www.businessinsider.com](http://www.businessinsider.com)

Smart Insights: [www.smartinsights.com](http://www.smartinsights.com)

Forbes Technology: [www.forbes.com/technology](http://www.forbes.com/technology)

MuleSoft resources: [www.mulesoft.com/integration-resources](http://www.mulesoft.com/integration-resources)

Gartner Research: [www.gartner.com/technology/research](http://www.gartner.com/technology/research)

# Course activities

## Lectures: 2 hrs/week

- Friday 12.15 - 14.00
- Venue: B-136
- Consultation hours: By appointment



# Guest lectures

[Yury Redutskiy](#)



**Cyber-physical systems**

[Karolis Dugnas](#)



**Digitalization of supply chains**

[Bjørn Jæger](#)



**Blockchain technology**

[Agaraoli Aravazhi](#)



**Big data Analytics**

# Course activities

## Evaluation:

- 5 assignments
- 4 assignments must be handed-in
- Final 4 hour written examination (100%)



# Course activities

- All assignments must be done in **teams**
- Although not encouraged, assignments can be done **individually**
- Teams should consist of **max 3** members
- Register names of your team members on Canvas by:
  - **Friday, 19<sup>th</sup> January** (Campus students)
  - **Thursday, 25<sup>th</sup> January** (HiMoldeX students)



HiMolde

Konto

Dashbord

Emner

Grupper

Kalender

Innboks

Commons

Help

2018 VÅR

Hjem

Moduler

Kunngjøringer

Oppgaver

Diskusjoner

Karakterer

Personer

Leganto

Kursoversikt

Samarbeid

Filer

Sider

Tester

Konferanser

Læringsmål

Innstillinger

LOG206 18V Elektronisk handel

Hopp til i dag

Rediger

Instructor

Deodat Edward Mwesiumo

PhD Scholar

Department of Logistics

Office: 2.147

E-mail: [Deodat.E.Mwesiumo@himolde.no](mailto:Deodat.E.Mwesiumo@himolde.no)

Importer fra Commons

Velg hjemmeside

Se emnesstrøm

Sjekkliste for emne-etablering

Ny kunngjøring

Vis Emne Analytics

< januar 2018 >

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4
5	6	7	8	9	10	11

Oppgaver for emner er ikke vektet.

HiMolde - HiMolde Canvas

Emnegrupper:LOG206 18

New Tab

Secure

https://himolde.instructure.com/courses/214/groups#tab-103

☆

Apps

Hvem har retten til de

Top 331 Reviews and

ACSI (American Cust

Inconvenient - definit

Watch TV Links Onlin

Høgskolen i Molde -

HBR What Is a Business M

Full pupp fremover -

Maryam (62) kjøpte le

HiMolde

Konto

Dashbord

Emner

Grupper

Kalender

Innboks

Commons

Help

2018 VÅR

Hjem

Moduler

Kunngjøringer

Oppgaver

Diskusjoner

Karakterer

Personer

Leganto

Kursoversikt

Samarbeid

Filer

Sider

Tester

Konferanser

Læringsmål

Innstillinger

LOG206 18V > Personer > Grupper

AlleAssignment 1

Egenpåmelding er gjort tilgjengelig i disse gruppene. ?

Grupper er begrenset til 3 medlemmer.

+ Gruppesett

+ Gruppe

Ikke tildelte studenter (82)

Søk blant brukere

Ida Aagaard-Nilsen

Julie Albert

Markus Almås

Wendi Ammo

Simen Karlsen Amundsg...

Léa Nadia Andrieu

Chanett Bakke

Eva Bergstrøm

Dzmitry Berykbayeu

Kristine Ski Blindheims...

Tone Brøndbo

Jan Kristian Daaland

Grupper (50)

Aggregators 1

Aggregators 2

Analysts 1

Analysts 2

Change agents 1

Change agents 2

Connectors 1

0 / 3 studenter

0 / 3 studenter

0 / 3 studenter

0 / 3 studenter

0 / 3 studenter

0 / 3 studenter

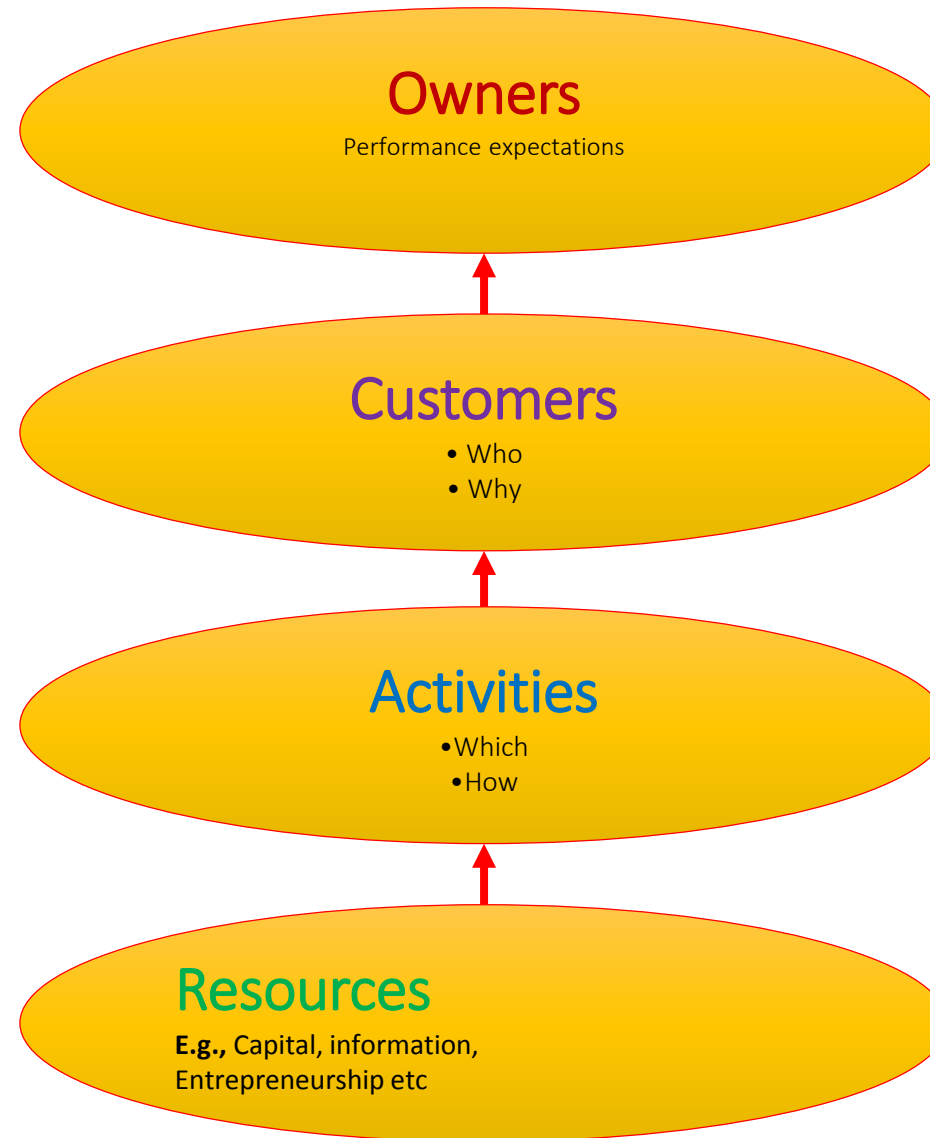
0 / 3 studenter

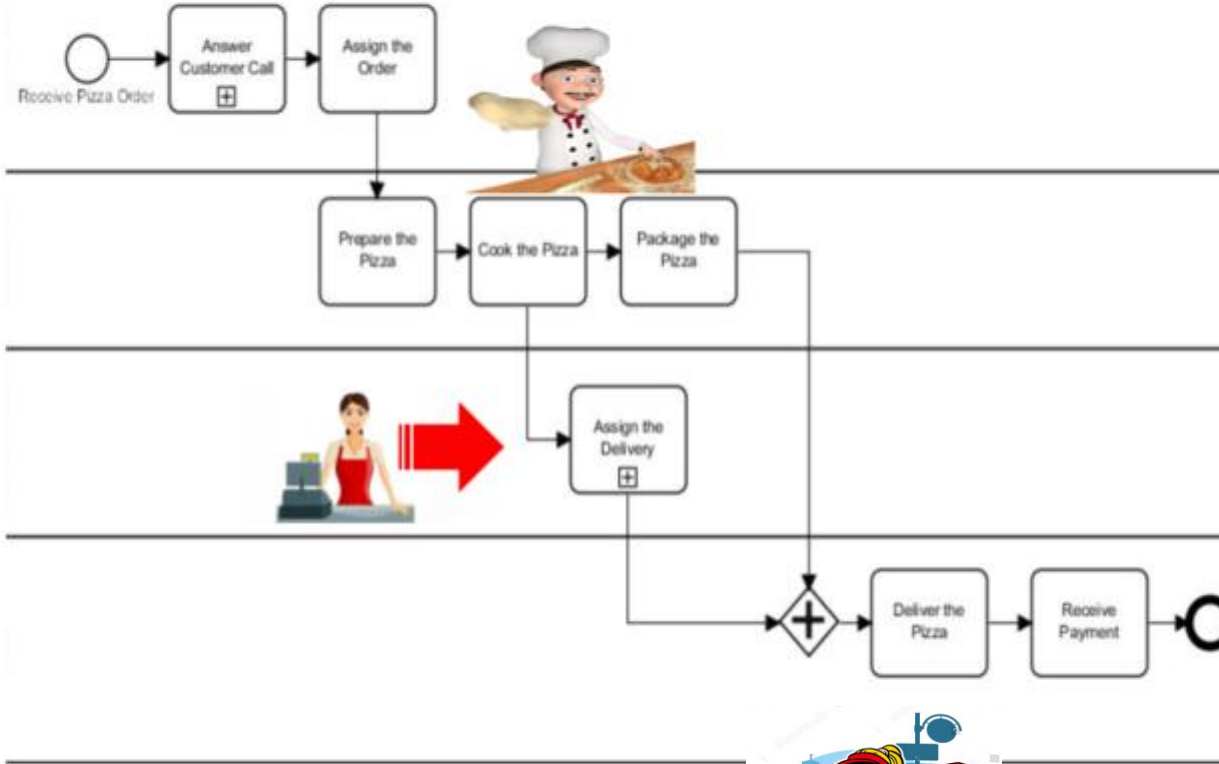
The image features a pair of red velvet curtains pulled back to reveal a dark, empty stage. The curtains are rich red with a plush texture, and their folds are illuminated by a soft light. The stage floor is dark, and the background is a deep black, creating a dramatic and focused atmosphere.

# **Introduction to Digital business and E-commerce**

**What is a business?**

# Cause and effect in business value creation

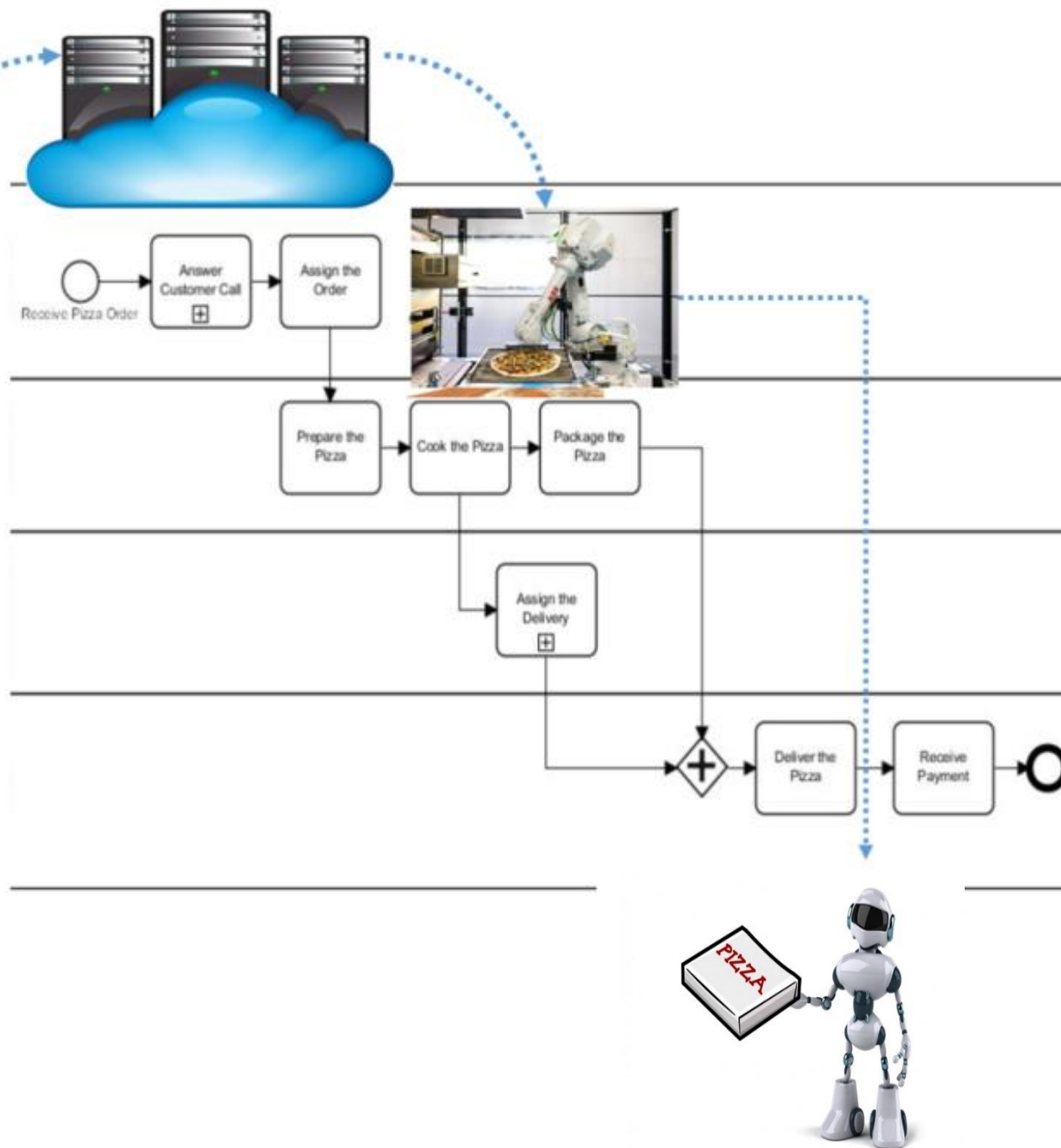




## LOG206 PIZZA RESTAURANT

**Stor pizza kr 159,-**  
Valg fritt av hele menyen





**LOG206 PIZZA RESTAURANT**  
**Stor pizza kr 159,-**  
Valg fritt av hele menyen



# What is Digital business?

- According to Chaffey the term Digital business is similar to E-business.
- The 6th edition of Chaffey uses the term digital business to reflect the current usage in the industry and research

According to Chaffey (2015):

Digital business refers to how businesses apply digital technology and media to improve the competitiveness of their organization through optimizing internal processes with online and traditional channels to market and supply



# Digital business according to Gartner, Inc

- However, a definition of Digital business offered by [Gartner, Inc](#) is increasingly used
- According to Gartner, Digital business involves the use of digital technologies to creation new designs that **integrate people, business** and **things**
- What makes **digital business** different from **e-business** is the presence of things, connected and intelligent, and their integration with people and businesses (Gartner, Inc)



# Value creation

## Resources

- Finance
- Infrastructure
- Labour
- Knowledge
- etc.



## Activities

- Design
- Production
- Logistics
- Marketing
- etc.

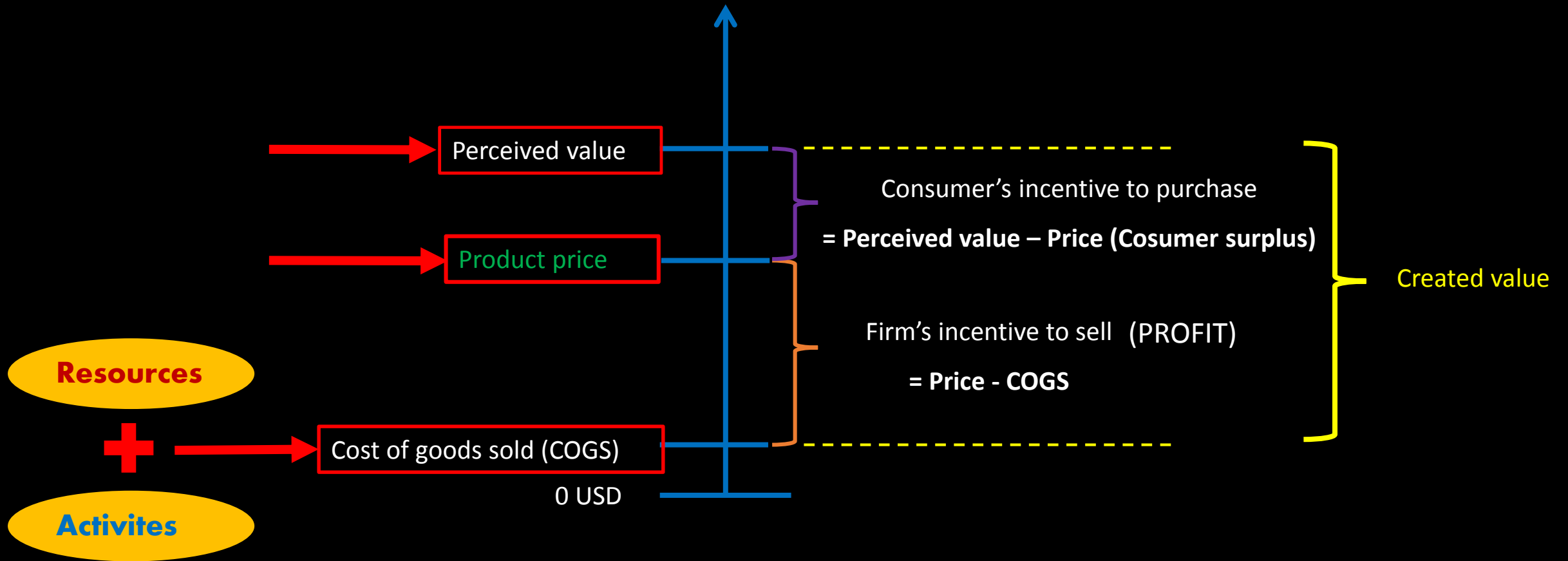


**VALUE**

Digital business



# Value creation

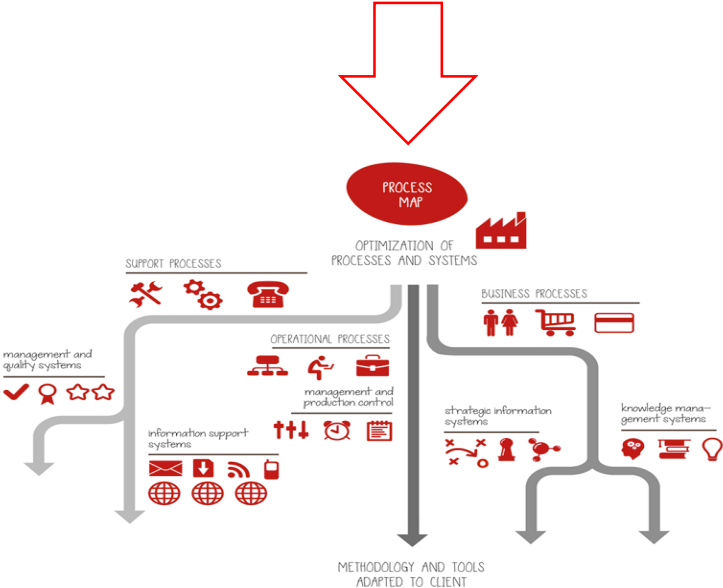


# Areas that can benefit from digital technologies.....

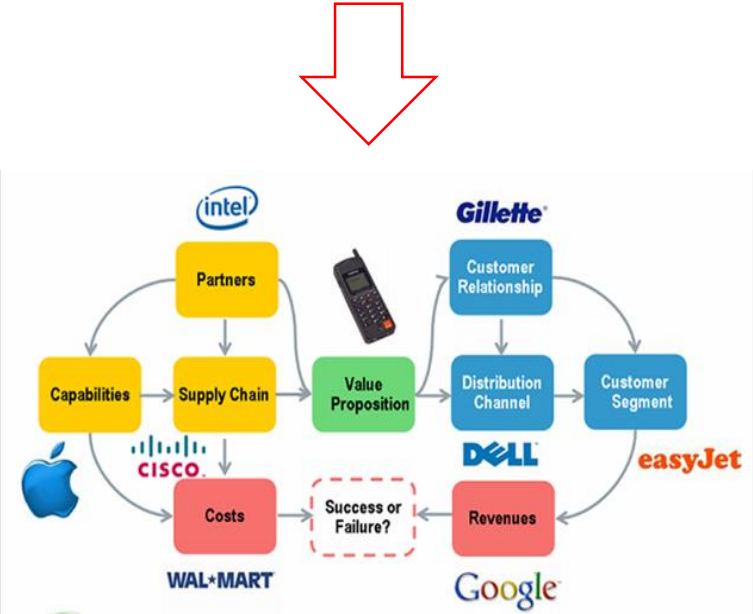
## Customer experiences



## Operational processes



## Business models



# Customer experiences



# Customer experiences

## Customer understanding

- Analytics-based segmentation
- Socially-informed knowledge



## Top line growth

- Digitally-enhanced selling
- Predictive marketing
- Streamlined customer processes



## Customer touch points

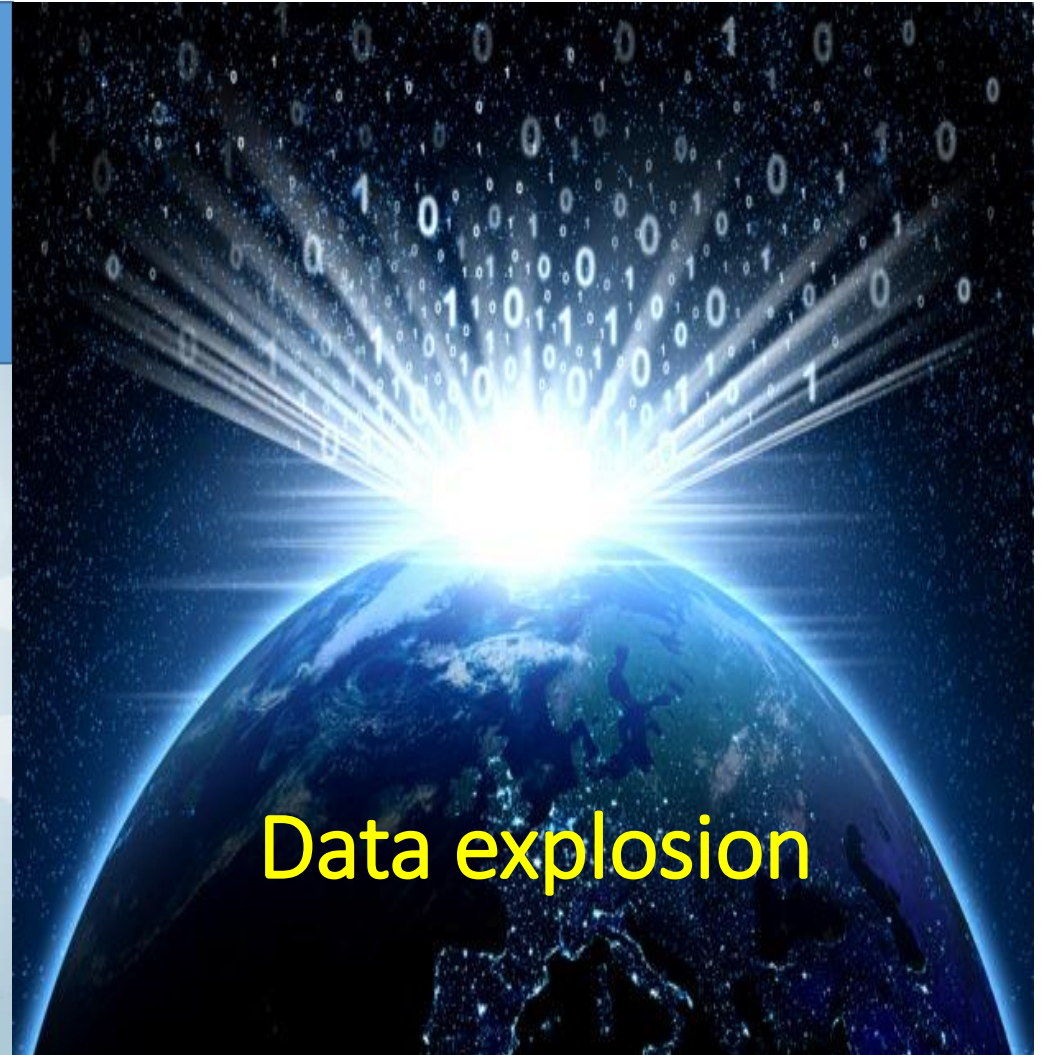
- Customer service
- Cross-channel coherence
- Self service



# Customer experiences

## Customer understanding

- Analytics-based segmentation
- Socially-informed knowledge



## Customer experiences



### Top line growth

- Digitally-enhanced selling
- Predictive marketing
- Streamlined customer processes



# Customer experiences

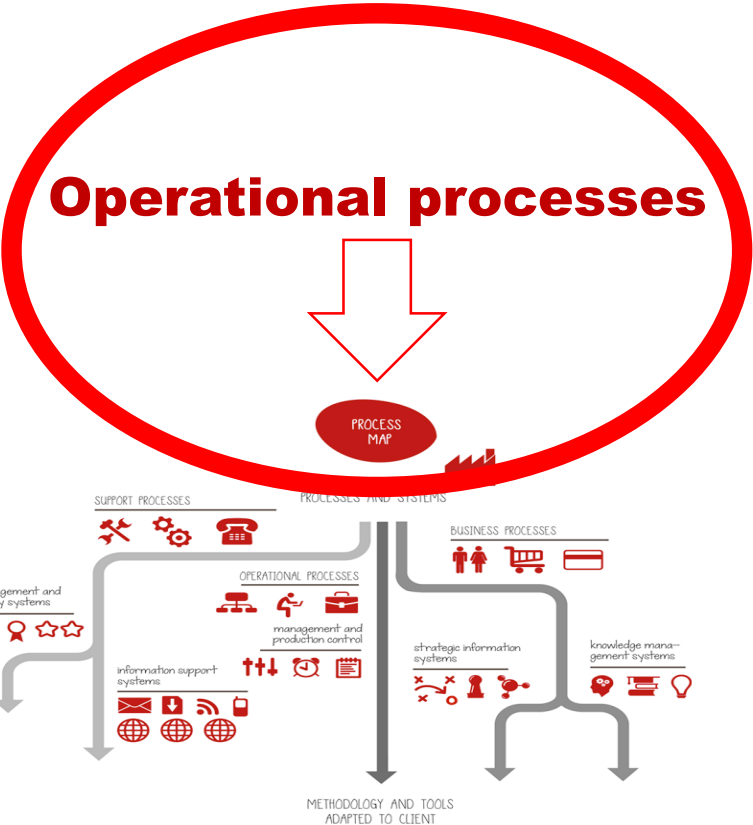
## Customer touch points

- Customer service
- Cross-channel coherence
- Self service



# Areas that can benefit from digital technologies.....

## Customer experiences



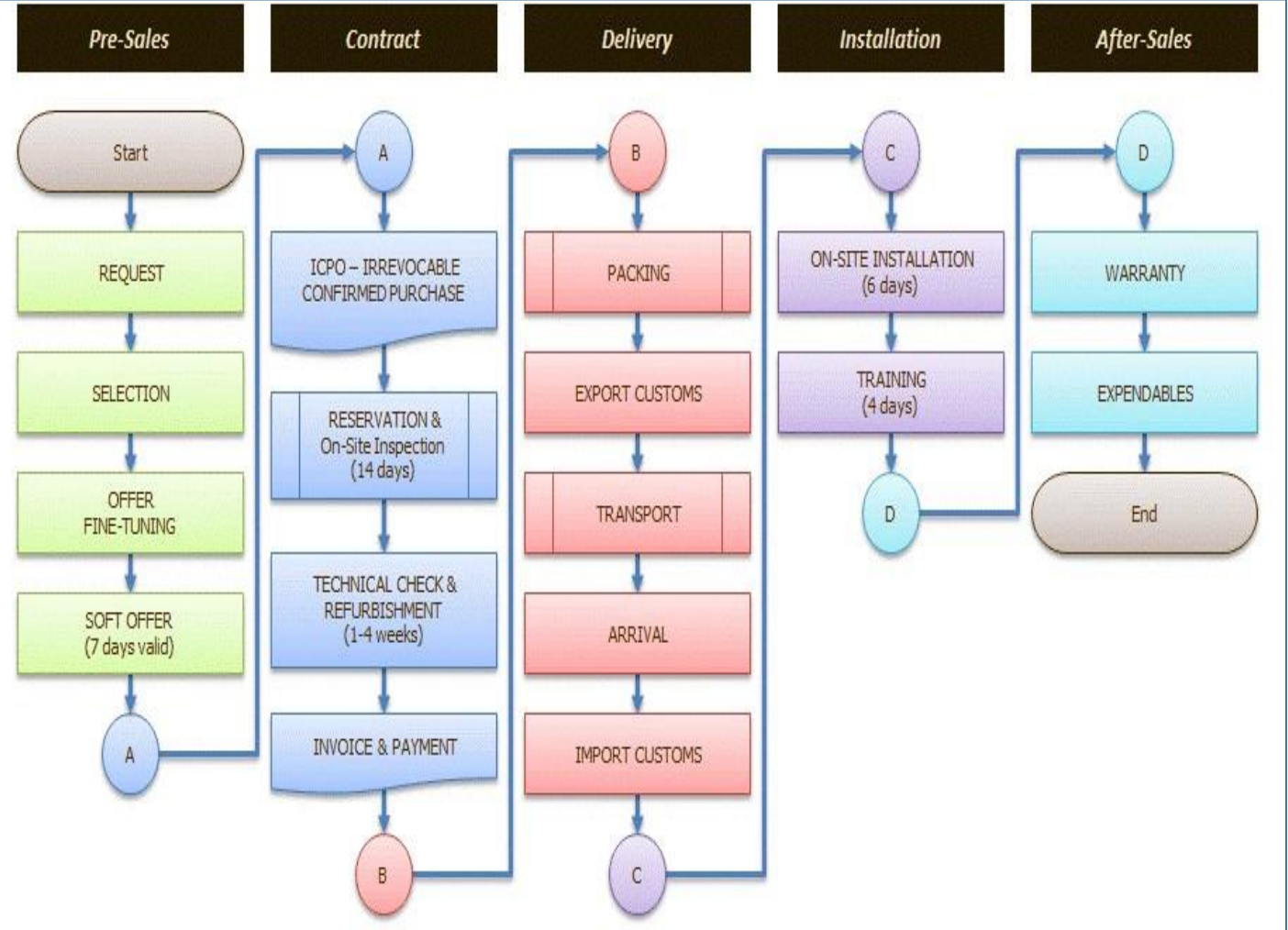
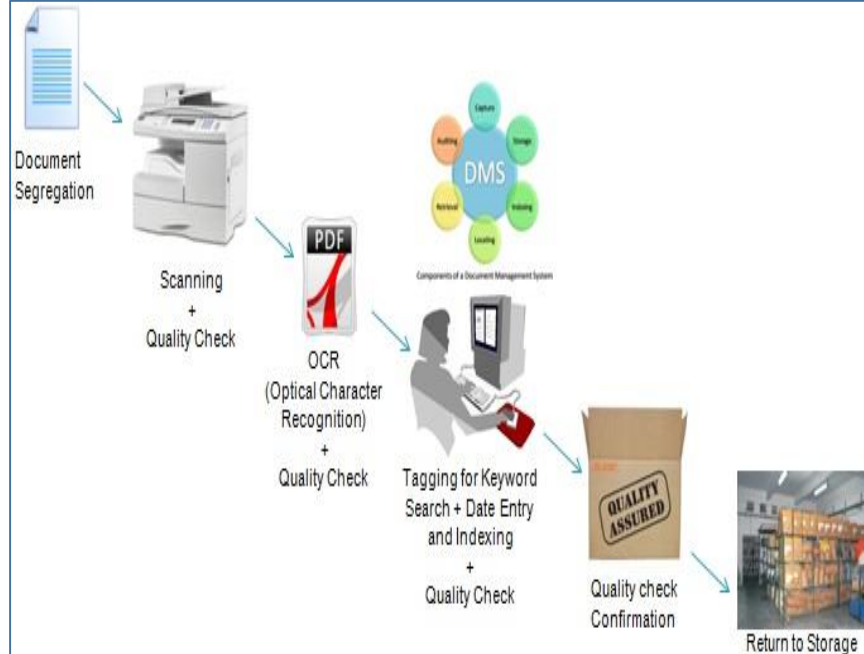
## Business models



# Operational Process

## Process digitization

- Performance improvement
- New features



## Operational Process

### Worker enablement

- Working anywhere anytime
- Broader and faster communication
- Community knowledge sharing



# Will Robots Take all Our Jobs?



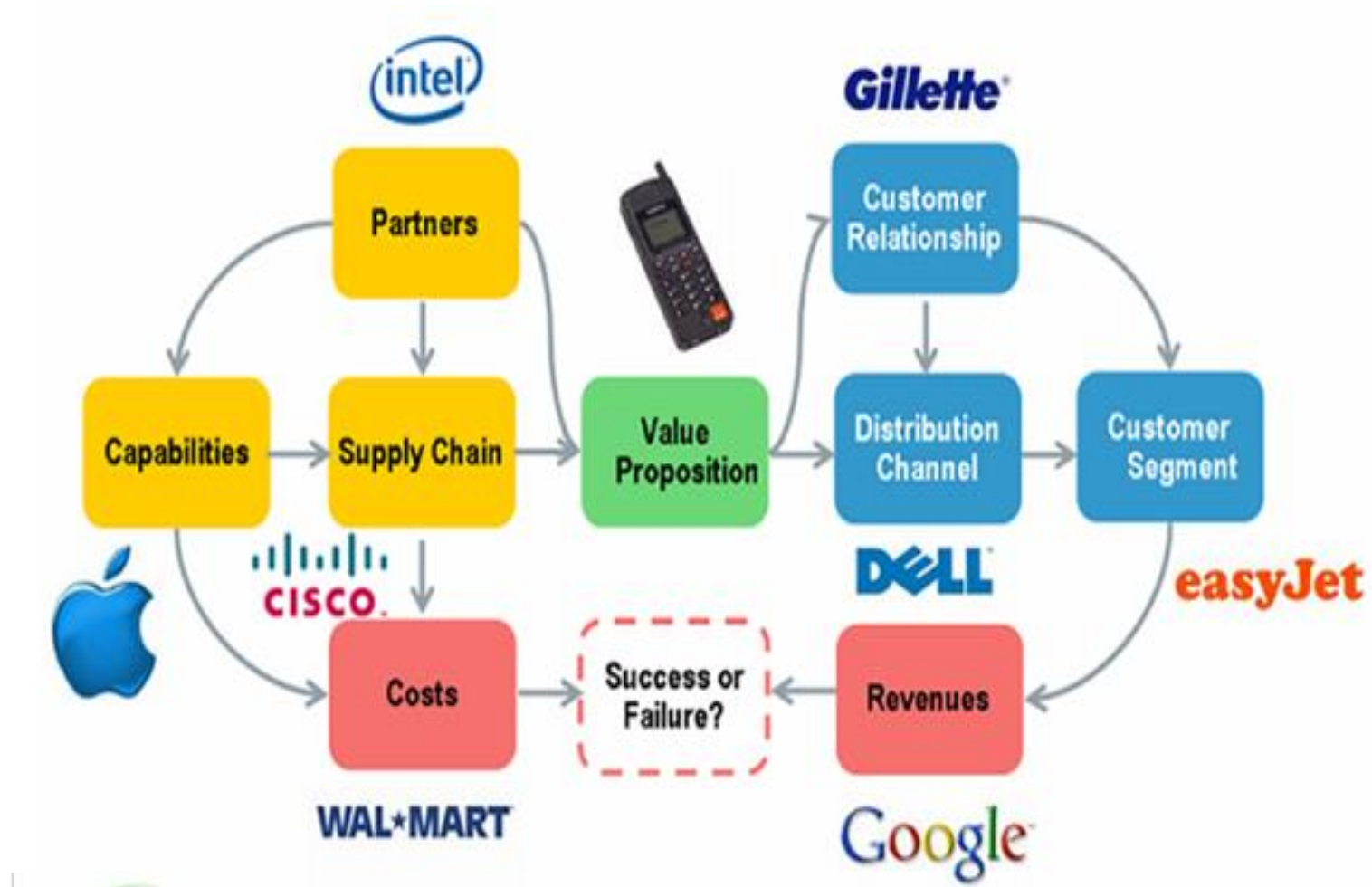
## Operational Process

### Performance management

- Operational transparency
- Data-driven decision-making



## Business models



# Important distinction.....



≠



# E-commerce

- Electronic commerce (e-commerce) is the purchasing, selling, and exchanging of goods and services over electronic networks (such as the Internet)
- For the most part today it entails the use of the Internet and the World Wide Web to mediate transactions between exchange parties
- However, ecommerce existed in business to business transactions before the Web back in the 70s via Electronic Data Interchange



# It's more than just buying and selling online .....

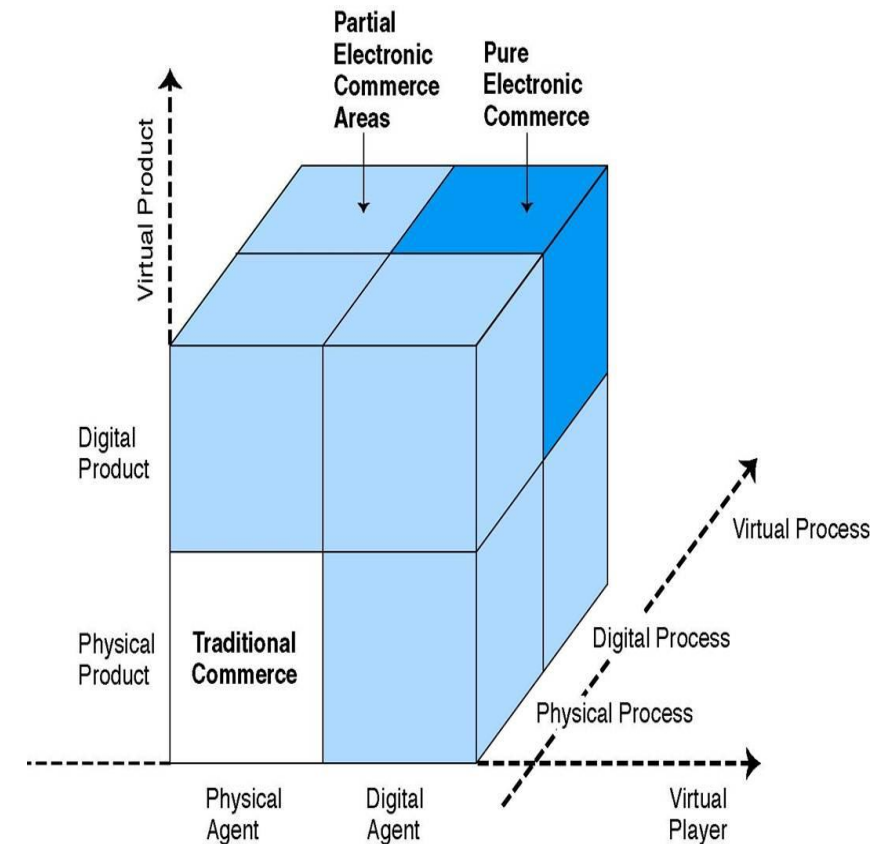
## Note:

- E-commerce is not restricted to online buying and selling of products, it also includes pre-sale and post sale activities across the supply chain
- Thus, non-financial transactions such as customer support and requests for further information are also considered as part of e-commerce

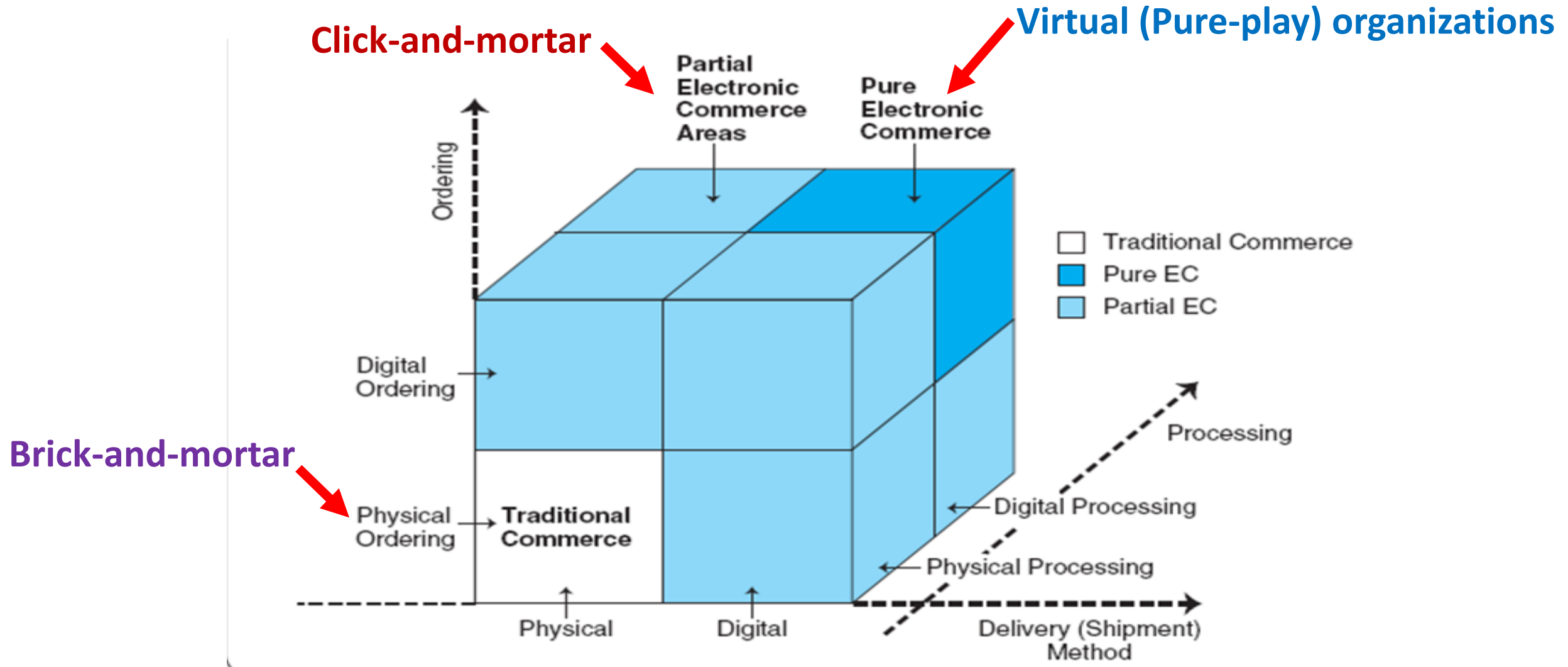


# Dimensions (Levels) of e-commerce

- EC can take different forms depending on the degree of digitization of:
  1. The product
  2. Transaction processing
  3. The shipment (delivery) method
- Each of these may be physical or digital which in turn determines levels of EC.
- In traditional commerce all three dimensions are physical while in pure EC all dimensions are digital
- If there is at least one digital dimension, it is considered as partial EC.



# Dimensions of e-commerce



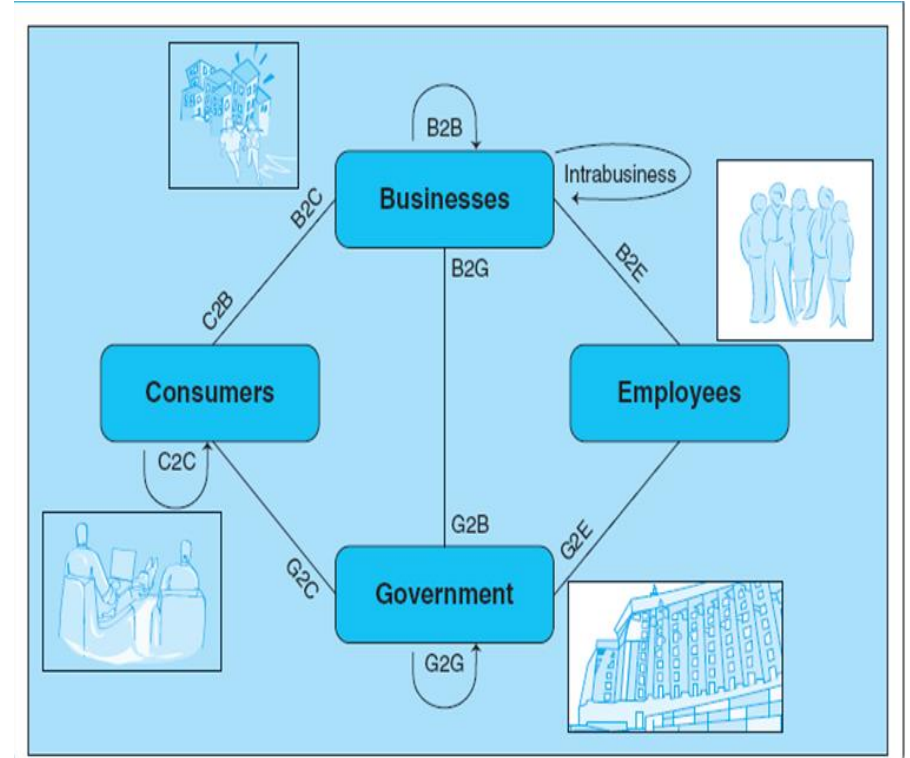
Source: Turban (2012)

# Amazon is ramping-up its physical presence.....



# Types of e-commerce

- There are several different types of e-commerce and many different ways to characterize them
- A common way to classify EC is by the nature of the transactions or the relationship among the participants
- That is, classification by considering the role of exchange parties--- who is dealing with whom



# Examples of transaction alternatives

		From: Supplier of content/service		
		<i>Consumer or citizen</i>	<i>Business (organisation)</i>	<i>Government</i>
To: Consumer of content/service	<i>Consumer or citizen</i>	<b>Consumer-to-Consumer (C2C)</b> <ul style="list-style-type: none"> <li>• eBay</li> <li>• Peer-to-Peer (Skype)</li> <li>• Blogs and communities</li> <li>• Product recommendations</li> <li>• Social networks: MySpace, Bebo</li> </ul>	<b>Business-to-Consumer (B2C)</b> <ul style="list-style-type: none"> <li>• Transactional: Amazon</li> <li>• Relationship-building: BP</li> <li>• Brand-building: Unilever</li> <li>• Media owner – News Corp</li> <li>• Comparison intermediary: Kelkoo, Pricerunner</li> </ul>	<b>Government-to-Consumer (G2C)</b> <ul style="list-style-type: none"> <li>• National government transactional: Tax – inland revenue</li> <li>• National government information</li> <li>• Local government services</li> </ul>
	<i>Business (organisation)</i>	<b>Consumer-to-Business (C2B)</b> <ul style="list-style-type: none"> <li>• Priceline</li> <li>• Consumer-feedback, communities or campaigns</li> </ul>	<b>Business-to-Business (B2B)</b> <ul style="list-style-type: none"> <li>• Transactional: Eurooffice</li> <li>• Relationship-building: BP</li> <li>• Media Owned: Emap business publications</li> <li>• B2B marketplaces: EC21</li> </ul>	<b>Government-to-Business (G2B)</b> <ul style="list-style-type: none"> <li>• Government services and transactions: tax</li> <li>• Legal regulations</li> </ul>
	<i>Government</i>	<b>Consumer-to-Government (C2G)</b> <ul style="list-style-type: none"> <li>• Feedback to government through pressure group or individual sites</li> </ul>	<b>Business-to-Government (B2G)</b> <ul style="list-style-type: none"> <li>• Feedback to government businesses and non-governmental organisations</li> </ul>	<b>Government-to-Government (G2G)</b> <ul style="list-style-type: none"> <li>• Inter-government services</li> <li>• Exchange of information</li> </ul>

# Other types (subsets) of E-commerce

- E-commerce can also be classified based on the platform used to mediate the transactions
- This depends on the importance of a particular platform in facilitating e-commerce
- Platforms that have become increasingly important in ecommerce include mobile devices and social networks



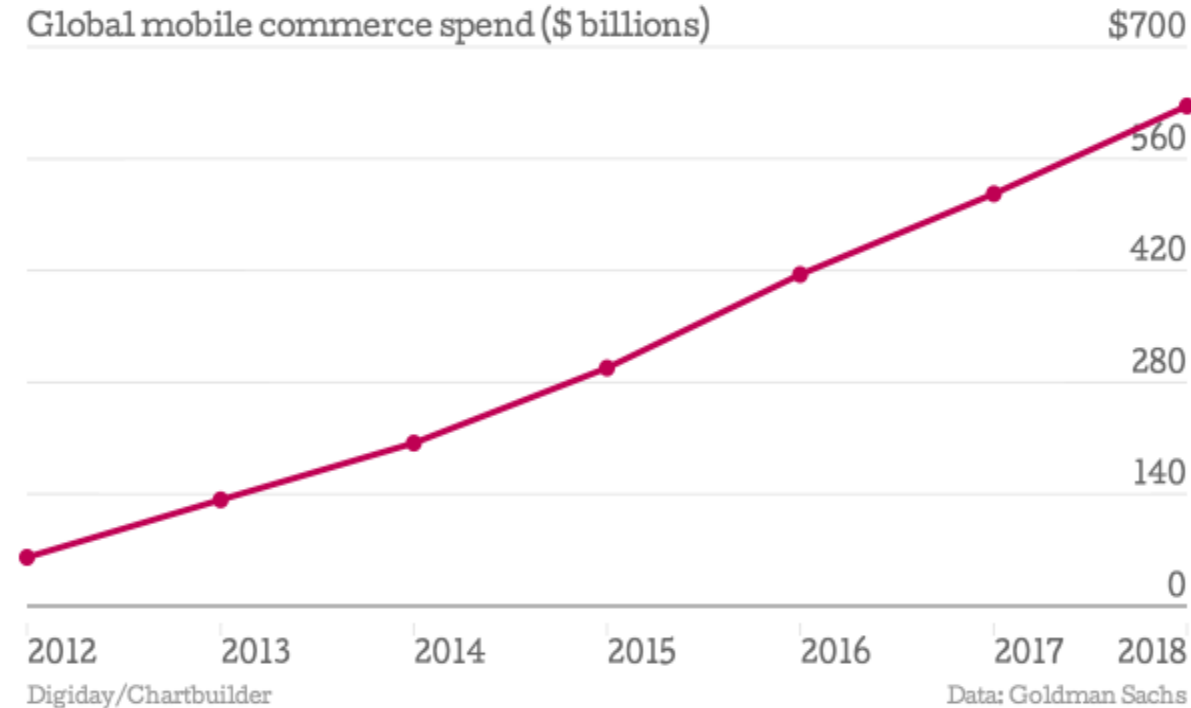
# Mobile commerce (Mcommerce)

- The use of mobile devices such as smartphones and tablets to enable online transactions
- It involves the use of cellular and wireless networks to connect mobile devices to the internet
- Once connected consumers can conduct transactions such as banking, stock trades etc
- Different from desktop computers mobile devices, follow you wherever you go.



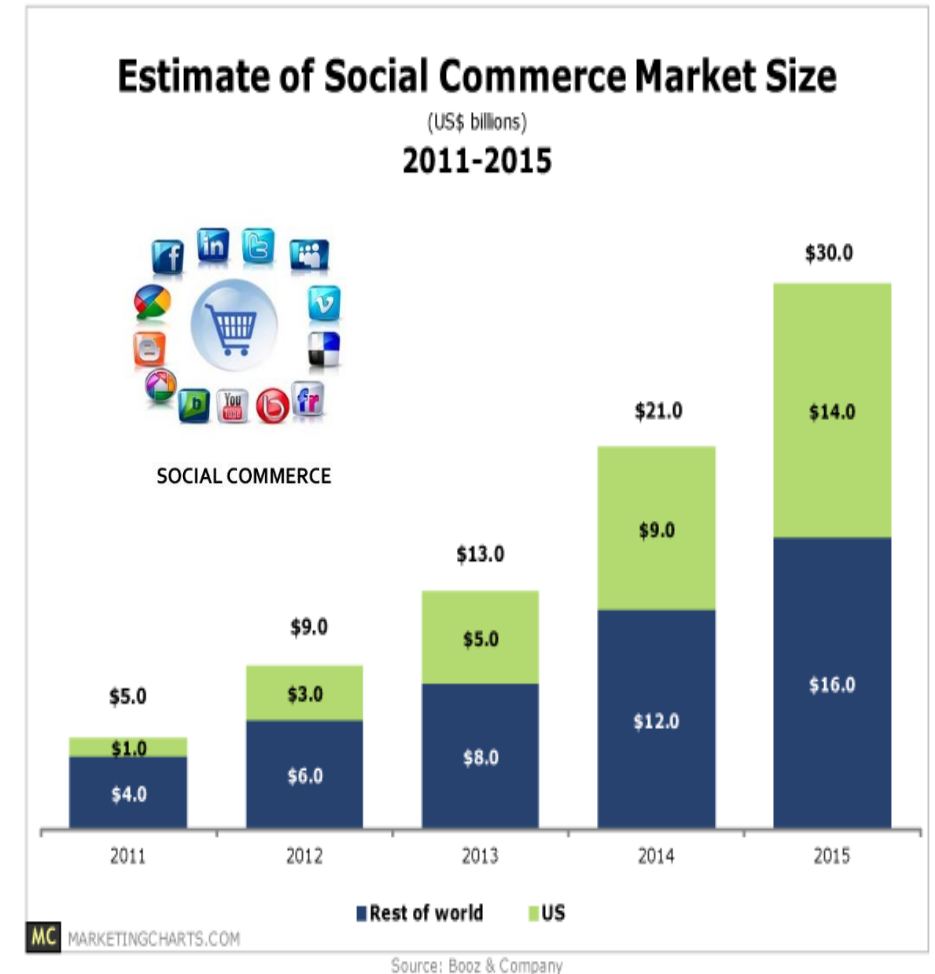
# Growth of mobile commerce

- Online transactions performed through mobile devices have increased massively
- Online spending on mobile devices in Europe doubled between 2014 and 2015 ([Twenga, 2015](#))
- A new mobile app-based online economy has grown along side traditional internet e-commerce
- Generating an estimated **€25.8** bil in revenue from sales of apps and in-app purchases worldwide in **2014**



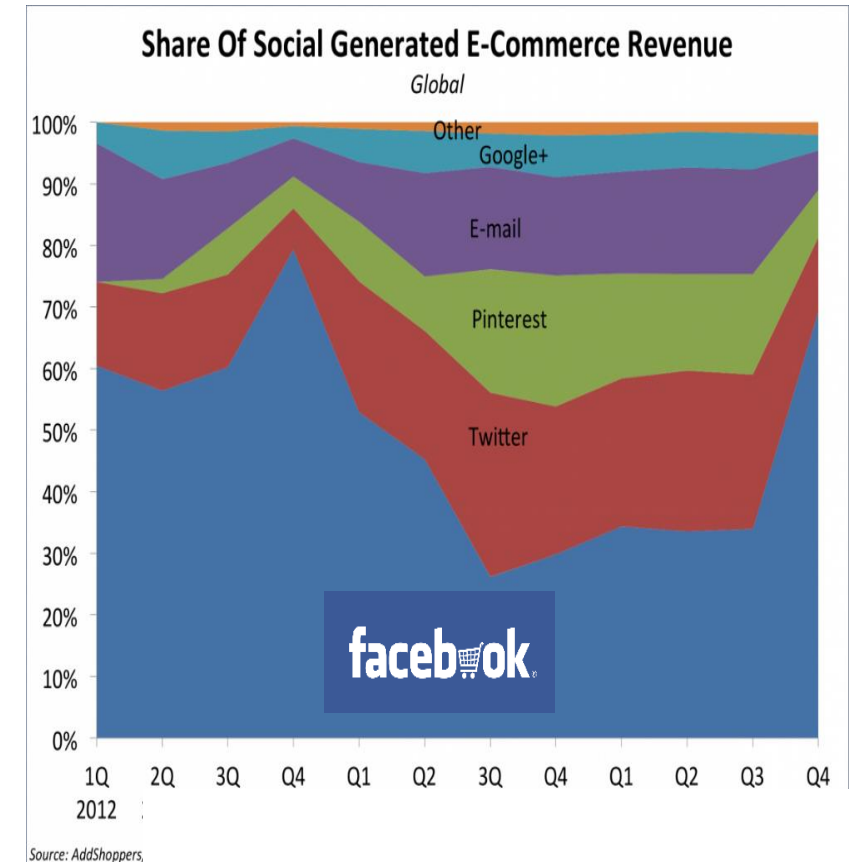
# Social commerce

- Refers to the e-commerce that is enabled by social networks and online social relationships.
- The growth of social commerce is driven by a number of factors including:
  - popularity of social sign-on
  - Network notification
  - Online collaborative shopping tools
- If you have an e-commerce store, social media should be a big part of your business strategy in promoting your brand and your products.



# F-Commerce

- Facebook has become important social platform for e-commerce
- F-Commerce reflects the popularity and the increasing commercial activities on Facebook
- Currently it is the top social commerce platform, driving more than two-thirds of mobile e-commerce traffic



Browser tabs: HiMolde - Tin, TimeEdit Høg, TimeEdit Høg, Mobile comm, Pizza Co. Deli, chrome-exten, cloud servers, Interfirm conf, Domino's Pizz, Kjøpe - Selge

Address bar: <https://www.facebook.com/groups/258134386746/>

Facebook Group: Kjøpe - Selge - Bytte - Gis bort - Molde

Group Type: Closed Group

Group Description:

# Kjøpe - selge - bytte - gies

Brukte gjenstander (og nye, med kvittering)

Kun for privatpersoner bosatt i Molde eller nærliggende kommuner.

Buttons: Joined, Notifications, Share, More

Actions: Sell Something, Start Discussion, Live Video, More

Search: What are you selling?

Items for Sale (See All 8,452 Items for Sale):

- kr 8,000
- kr 3,900
- kr 500
- kr 30,000
- kr 4,000
- kr 5,200

ADD MEMBERS

Enter name or email address

16,345 Members

MEMBERS

DESCRIPTION

FØR DU LAGER ET INNLEGG, VENNLIGST GJØR DEG KJENT MED DETTE FØRS...

See More

GROUP TYPE

Buy and Sell

LOCATIONS

Molde, Norway · Elnesvågen

FOR SALE Find More Buy and Sell Groups

Learn more about buying and selling in Groups on Facebook.

Share your feedback on buying and selling in Groups.

CONTACT PAGES

SEE ALL

CONTACTS

- Ct Sandra Sandra
- Tassew Dhufera
- Yohannes Yebabe
- Salim Mfungahema
- Nurdin Adam Moham...
- Genuine Martin 2m
- Odd Magnus Helle
- Jabulile Makhallima
- Sunday Oluwashegun
- Rodrigo Ferreira
- Epafras Faustin
- Tschring Bomzan Ta...
- Daudi-Dr Lwiza
- Geir Ove Rønneberg
- Damson De Kitosi

GROUP CONVERSATIONS

Leonard, Brice, Deodat

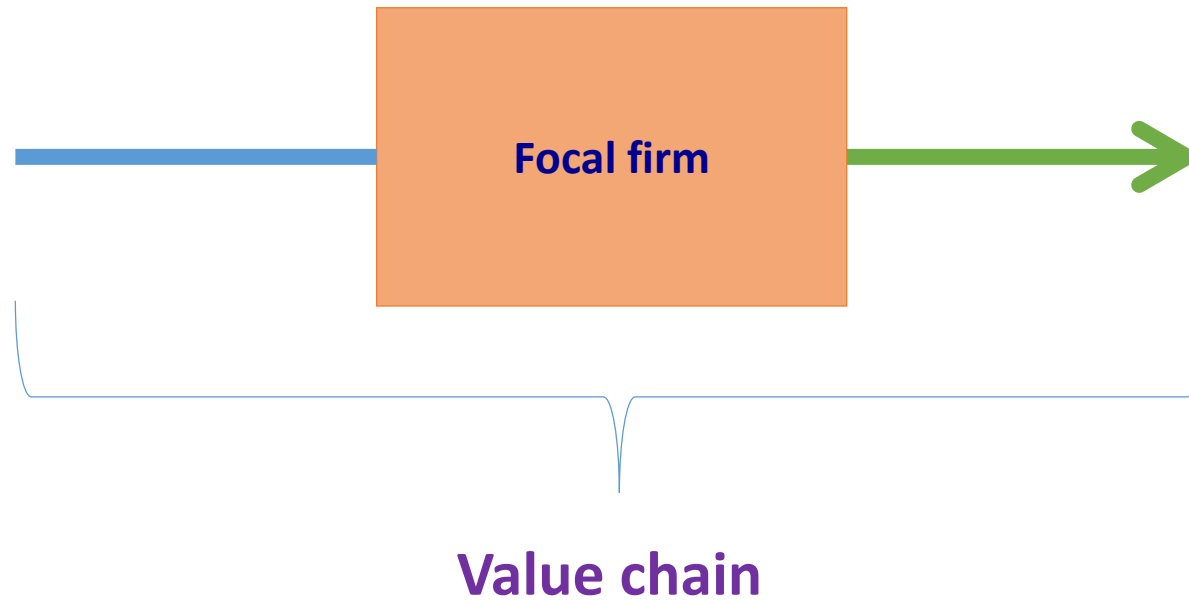
MORE CONTACTS (31)

Search

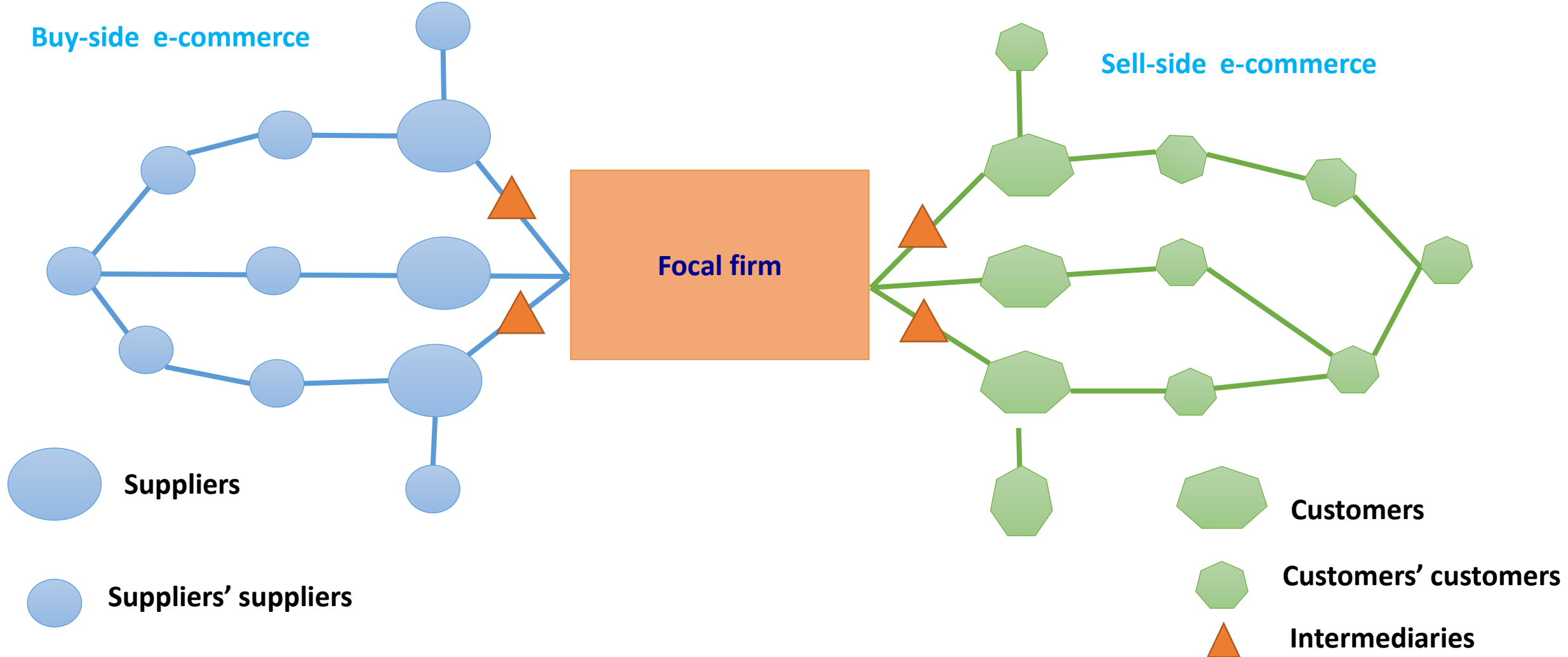
# E-commerce: Buy-side vs. Sell-side



# E-commerce: Buy-side vs. Sell-side

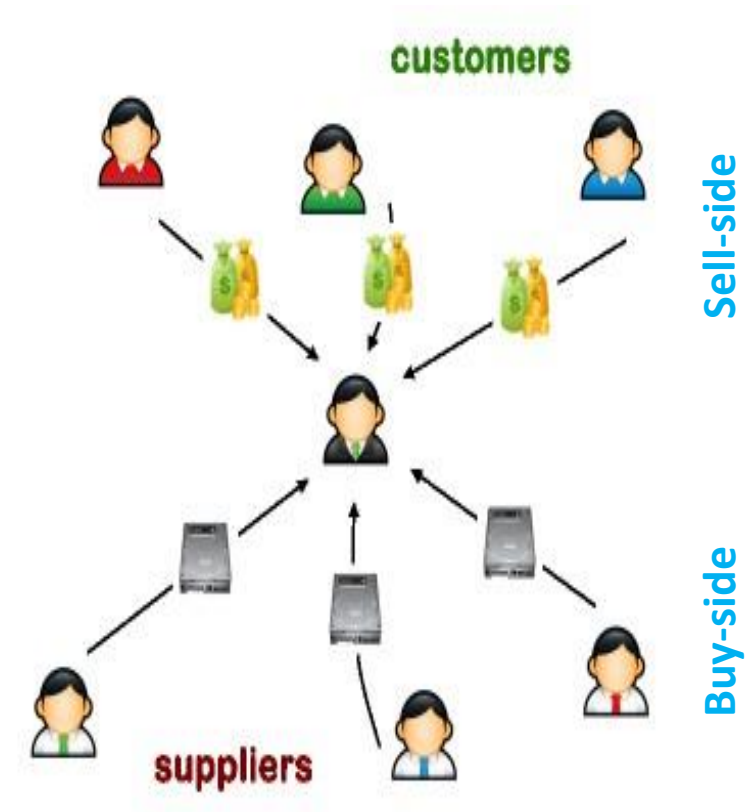


# E-commerce: Buy-side vs. Sell-side

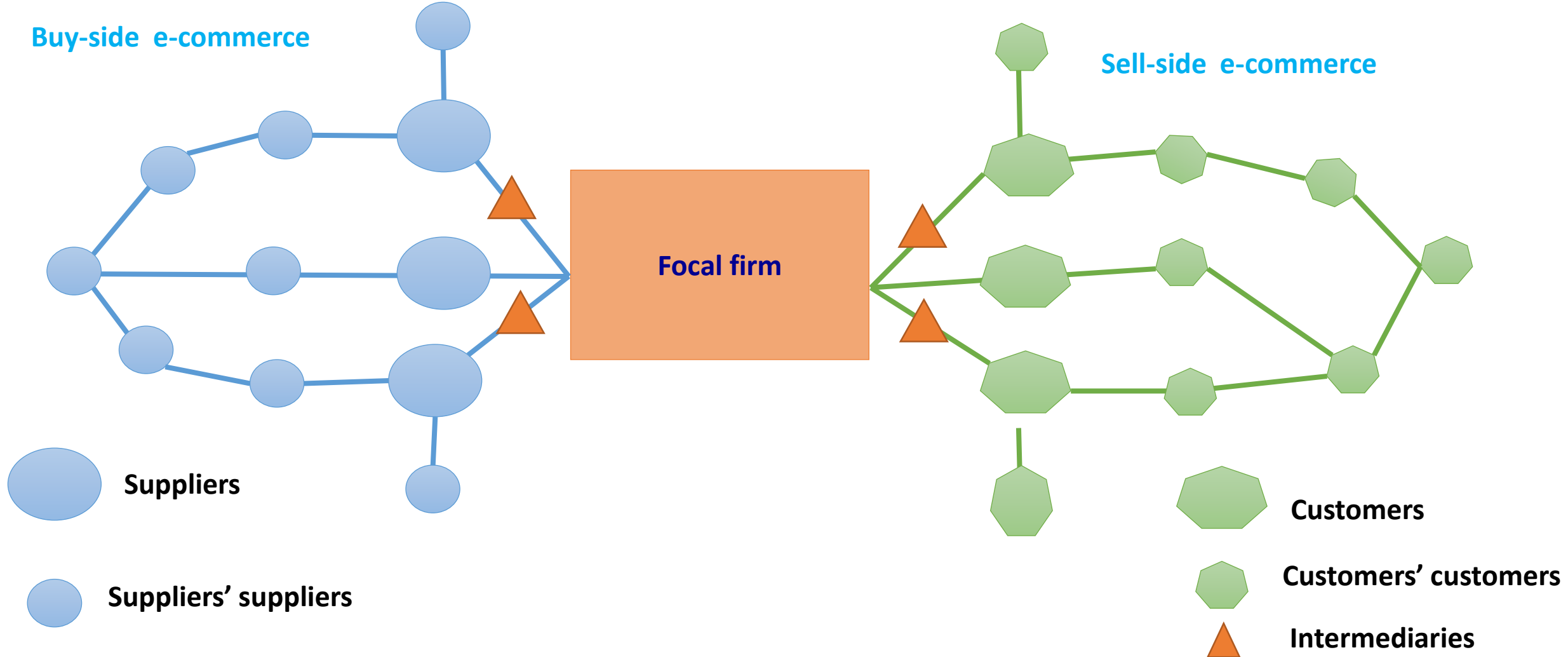


# E-commerce: Buy-side vs. Sell-side

- Buy-side e-commerce are e-commerce transactions between a purchasing organisation and its suppliers.
- Sell-side e-commerce are e-commerce transactions between an organisation and its customers.
- E-commerce presents different opportunities for the Buy side and sell side of an enterprise



# E-commerce: Buy-side vs. Sell-side



# Different types of sites for sell-side e-commerce

- Transactional e-commerce sites
- Services-oriented relationship-building website
- Brand-building sites
- Media sites
- Social network sites (SNS)



# Different types of sell-side e-commerce

## Transactional e-commerce site

These sites enable purchase of products online. They also provide information for consumers who prefer to purchase products offline. They include retail sites, travel sites and online banking services

Examples: [amazon.com](http://amazon.com), [elkjop.no](http://elkjop.no) etc

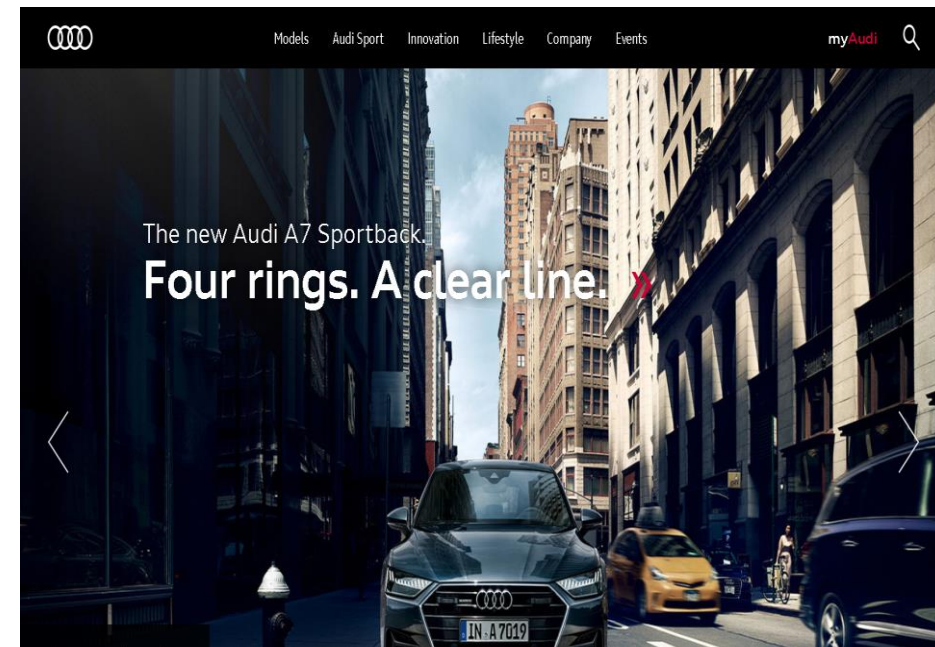


# Different types of sell-side e-commerce

## Service-oriented relationship-building websites

These provide information to stimulate purchase and build relationship, particularly where products are not suitable for sale online. The main contribution is through encouraging offline sales and generating enquiries or leads from potential customers.

Example: [Audi.com](https://www.audi.com)

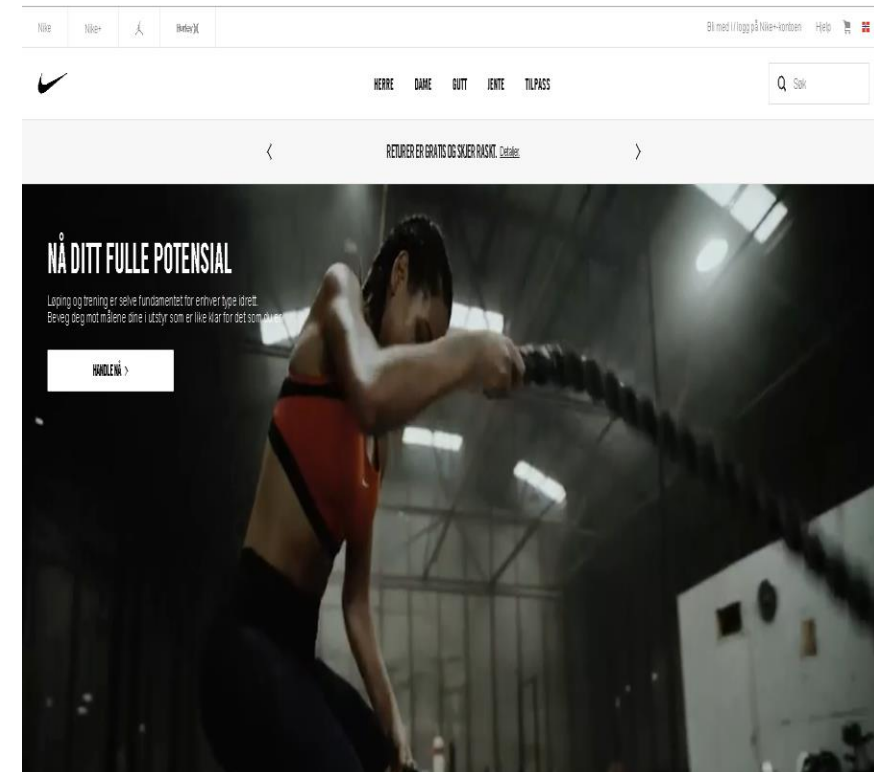


# Different types of sell-side e-commerce

## Brand-building site

Provide an online experience to support the brand. Products are not typically available on the main site for purchase. Their main focus is to support the brand by developing an online experience of the brand.

Example: **nike.com**

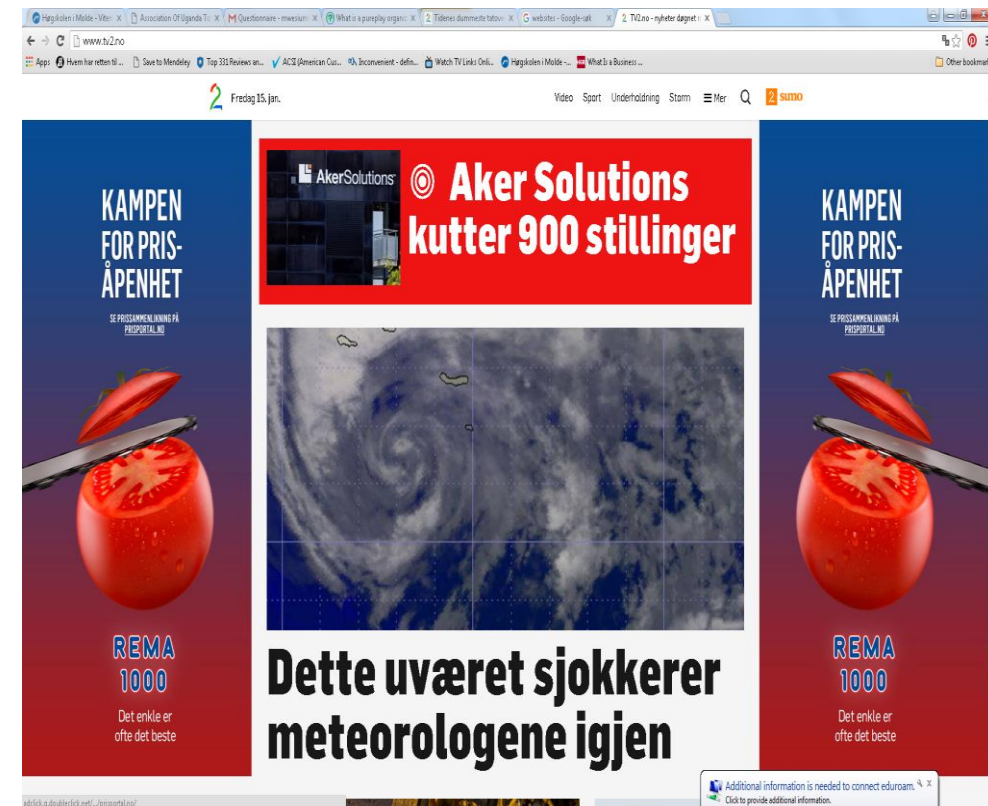


# Different types of sell-side e-commerce

## Publisher or media site

Provide information, news or entertainment about a range of topics. This information is available both on the site and through links to other sites. Media sites can have diverse sources of revenue including advertising, commission-based sales and sale of customer data.

Example: [tv2.no](http://tv2.no), [cnn.com](http://cnn.com), blogs



# Different types of sell-side e-commerce

## Social network sites (SNS)

A site that facilitate peer-to-peer communication within a group or between individuals through providing facilities for user-generated content (UGC) and to exchange messages and comments between different users.

Example: [Facebook](#), [LinkedIn](#), [Twitter](#)



# **What are the challenges faced by e-commerce firms?**



# Recommended article:

## E-Commerce Done Right: Five Keys To A Successful Online Business

<https://www.forbes.com/sites/forbesbusinessdevelopmentcouncil/2017/10/03/e-commerce-done-right-five-keys-to-a-successful-online-business/#3d9f29b848ee>