MOBILE COMMERCE

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Introduction to Mobile Commerce

NM-AIST

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Learning Objectives

- Electronic Commerce / Electronic Business in general.
  - □ Definitions.
  - □ Kinds of business relationships.
- What actually means ….
  - □ Mobile Commerce (MC).
  - □ Mobile Business (MB).
  - □ What is their relationship, what distinguishes them?.
- Knowledge of actual developments in Mobile Commerce

Class Discussion

What is the difference between Electronic Business Vs Electronic Commerce?
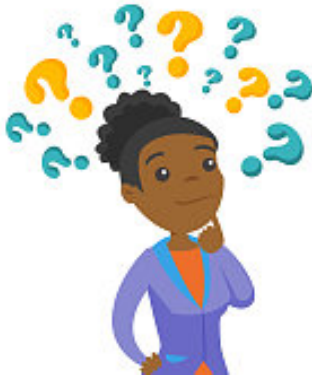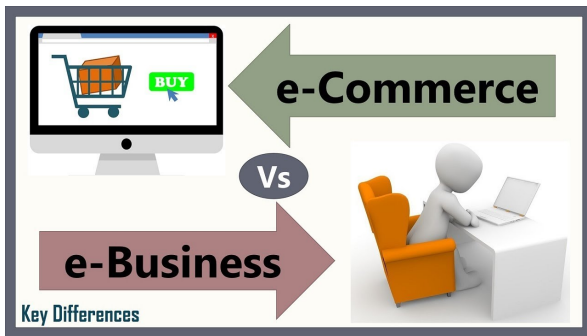
Electronic Commerce

What do Electronic Commerce / Business mean?

- Electronic Business ...
  - □ ... supports variant communication and business processes - across the entire range of company operations - by using "modern" electronic communication techniques and media
  - □ ... realizes integrated and automatic business processes of a company by using information - and communication technologies
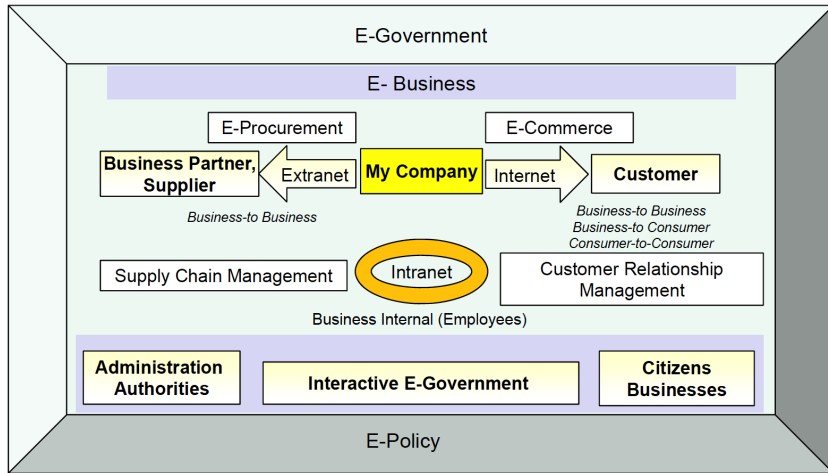
Definition - Electronic Commerce

- Electronic Commerce ...
  - Short for: Electronic trading or electronic business exchange
  - Electronic handling of ...
    - Procurement
    - Buy and sell of products
    - Different kinds of services
    - Providing variety of information

E-Business   E-Commerce
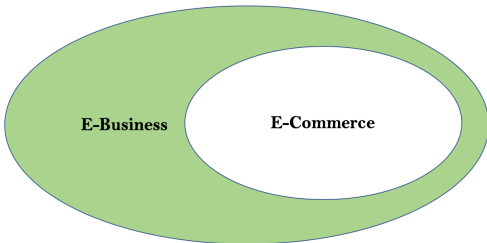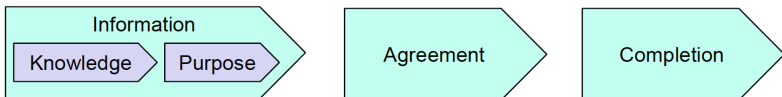
An "E-xyz" Overview

Reference: Schubert, 2000

Transaction Phases

- E-Commerce being a subset of E-Business deals intensively with

  - □ Information about possible business transactions
  - □ Agreements with legally binding
  - □ Processing and completion
    - Focus on B2B, B2C, and C2C

Information — Knowledge — Purpose | Agreement | Completion

Reference: Schubert, 2000

Matrix of Business Relationships, "Provider-To-Customer"

to ↘		Service Customer		
		Consumer	Business	Administration
Service Provider	Consumer	**Consumer-to-Consumer (C2C)** e.g. eBay advertisements		
	Business			
	Administration			

Reference: Meier and Stormer, 2009

Matrix of Business Relationships, "Provider-To-Customer"

| to		Service Customer		
		Consumer	Business	Administration
Service Provider	Consumer	**Consumer-to-Consumer (C2C)** e.g. eBay advertisements	**Consumer-to-Business (C2B)** e.g. website containing personal profile	**Consumer-to-Administration (C2A)** e.g. citizens participating in a public survey
	Business	**Business-to-Consumer (B2C)** e.g. products and services in an eShop	**Business-to-Business (B2B)** e.g. orders from suppliers (Supply Chain)	**Business-to-Administration (B2A)** e.g. electronic services for public administrations
	Administration	**Administration-to-Consumer (A2C)** e.g. electronic elections	**Administration-to-Business (A2B)** e.g. public calls for governmental projects	**Administration-to-Administration (A2A)** e.g. cooperation of "virtual" communities

Introduction to Mobile Commerce

From Electronic to Mobile Commerce / Business

Class Discussion

What is the difference between Electronic Commerce Vs Mobile Commerce?
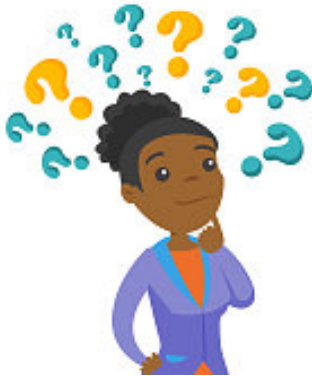
- Electronic Commerce (EC) encompasses every type of business transaction in which the transaction partners use electronic communication technologies as part of the ...
  - □ Initiation of services
  - □ Service agreements
  - □ Provision of services

  - □ Mobile Commerce (MC) is a kind of Electronic Commerce with special characteristics
    - Mandatory Infrastructure: wireless communication
    - Customer relationships are realized by using Mobile Devices
    - Relationship can be realized almost independent of time and space
    - Relation can be of any type: "ABCD To DCBA"

Class Discussion

What is the difference between Mobile Commerce Vs Mobile Business?

Definition Mobile Commerce (1/2)

- Mobile commerce is "the delivery of electronic commerce capabilities directly into the consumer's device, anywhere, anytime via wireless networks" - Reference: Global Mobile Commerce Forum

- Mobile commerce refers to any type of business transaction in which the transaction partners use mobile electronic communication technologies (in connection with mobile devices) as part of the initiation of services, service agreements, and/or the provision of services - Reference: Turowski and Pousttchi, 2003

Definitions Mobile Commerce (2/2)

Mobile commerce (M-Commerce, or mobile trade) means those transactions on the market through which the exchange of economic goods combined with monetary values takes place via mobile devices - Reference: Buse, 2002

Definition Mobile Business (MB)

Mobile business is understood to mean any type of economic activity* via mobile devices.

- Mobile devices are only those that can be used wirelessly anytime, anywhere.
- WLAN, with its limited range, cannot (alone) support mobile applications, for example.
- M-Business takes over parts of E-business with additional possibilities of mobile applications.

Economic activity:

- Exchange of goods, services, and information

* Exchange of goods, services, or information - Reference: Buse, 2002

Essential Characteristics of MC and MB

Time independence (immediacy)

- Any action (order, payment, info request) is (almost) immediately initiated

Location independence (permanent availability)

- Any action can be initiated from anywhere, the business partner is (at least virtual) permanent available

Personalization (human actor identifiable)

- The actor (or the machine) is identifiable

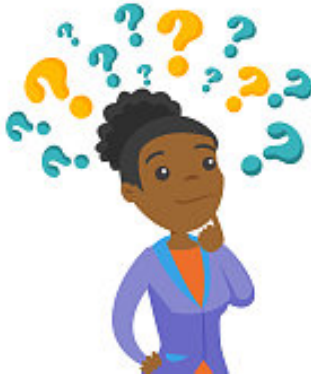Localization ("Location Based Services" - LBS)

- Actions can be performed in the context or with the knowing of the actual location

Reference: Gora, 2004

Acceptance Limitations ???

A Task to Think About:
- Today much can be read about all the advantages M-Commerce provides for customers but ...
  - □ Which factors could user deter from using M-Commerce?

Acceptance - Personal (perceiving) Factors

Facilitating Factors

- Speed of transaction
- Always near you
- Ease of use
- Clarity
- Paying without the need of a mobile banking scanner
- Buying is possible, even if your PC/Laptop does not have a Wi-Fi connection
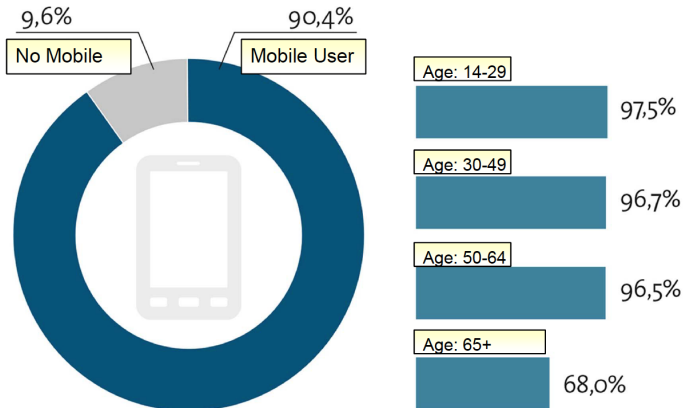
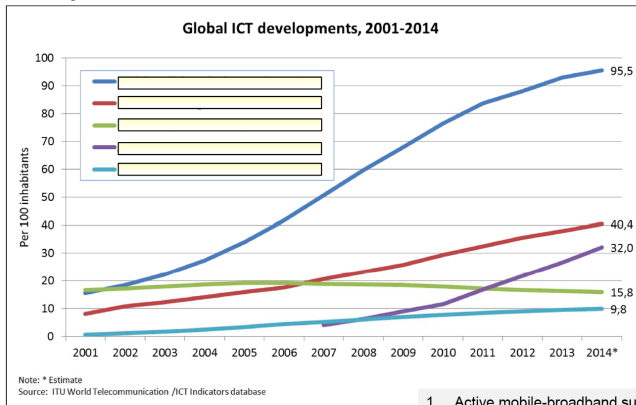# Acceptance - Personal (perceiving) Factors

Impeding Factors
- Security issues
- Difficult on a small screen
- Never done it, do not know how to do it (complexity)
- Wanting to buy as much as possible in physical stores
- Wanting to see the product in real
- Websites are not always compatible on smartphones
- Clarity
- More prone to errors than on PC/laptop

Reference: Koen Siers University of Twente, 2017
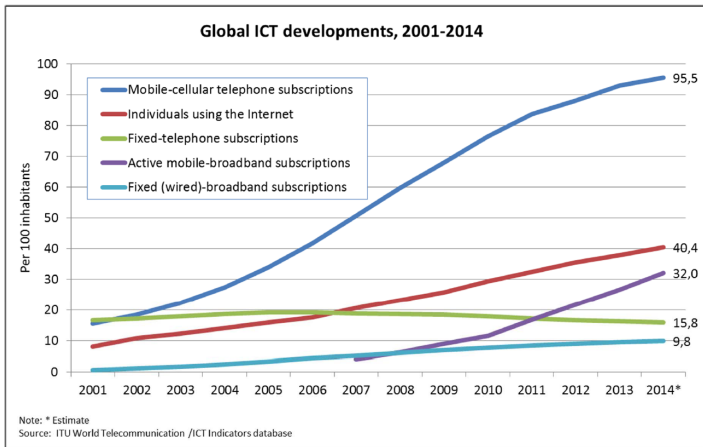
A Matter of Age ...

9,6%
No Mobile

90,4%
Mobile User

Age: 14-29
97,5%

Age: 30-49
96,7%

Age: 50-64
96,5%

Age: 65+
68,0%

BITKOM

N = 1008, Source: Bitcom

Development of the "Information and Communication Technology"

Global ICT developments, 2001-2014

Per 100 inhabitants

Note: * Estimate
Source: ITU World Telecommunication /ICT Indicators database

95,5
40,4
32,0
15,8
9,8

1. Active mobile-broadband subscriptions
2. Fixed (wired) broadband contracts
3. Fixed telephone subscriptions
4. Individuals using the Internet
5. Mobile cellular telephone subscriptions

Development of the "Information and Communication Technology"

Global ICT developments, 2001-2014

- Mobile-cellular telephone subscriptions
- Individuals using the Internet
- Fixed-telephone subscriptions
- Active mobile-broadband subscriptions
- Fixed (wired)-broadband subscriptions

Per 100 inhabitants

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Phones vs. Electricity in Africa

- In 2016 two-fifths of people in sub-Saharan Africa had mobile phones.
- In most African countries, less than half the population has access to electricity.
- In a third of those countries, less than a quarter does.
- Yet in much of the continent people with mobile phones outnumber those with electricity.

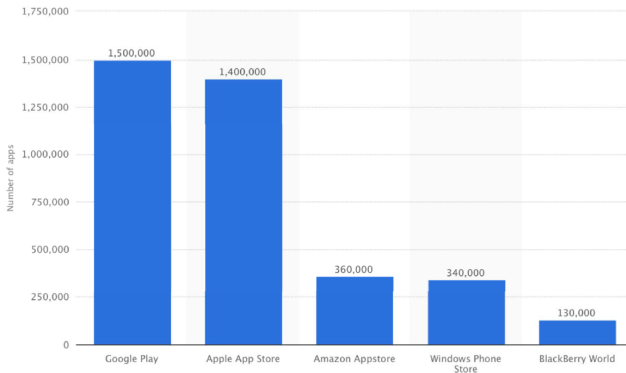Reference - The Economist, 2017

Phones vs. Electricity in Africa
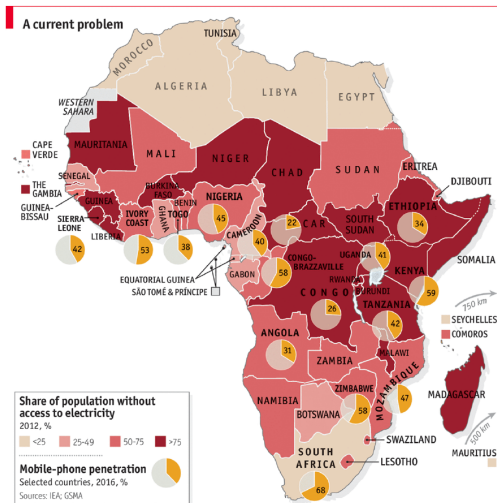
Apps in App Stores

Number of apps available in leading app stores as of May 2015
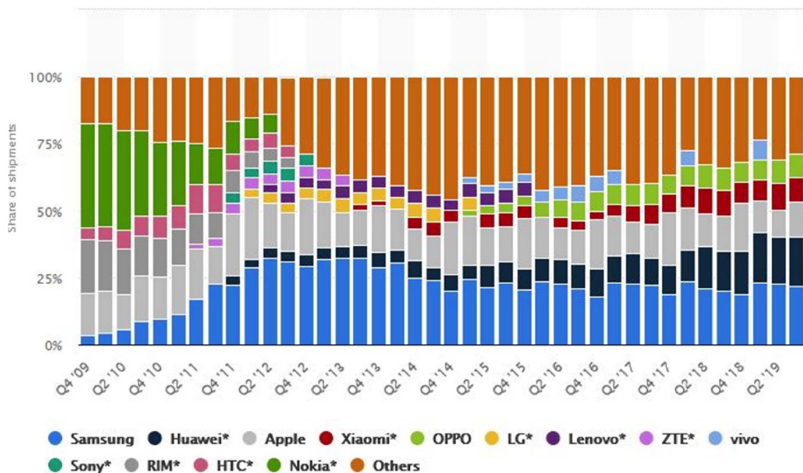

© Statista 2015

Additional Information:
Worldwide; Android; Apple; Google; Microsoft; AppBrain;
BlackBerry; May 2015

Sources:
Apple; Android; Various sources (WindowsCentral.com);
AppBrain; BlackBerry

Sales of Mobiles by Manufacturer

Acknowledgment

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Prof. Dr. Jorge Marx Gomez

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VERY LARGE
BUSINESS APPLICATIONS