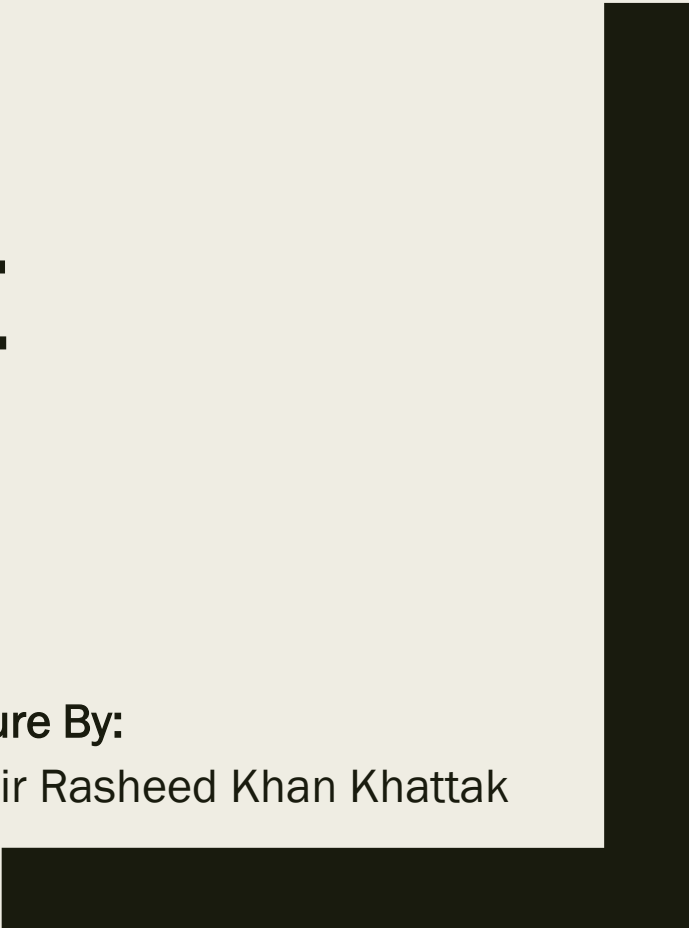




E-COMMERCE

Lecture – 02

Lecture By:
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Objectives

1. Classification of computers. Computer network.
2. Introduction to internet, growth of internet.
3. Introduction to web and growth of web.
4. Internet and Web gave birth to e- commerce.
5. Understand the evolution from internet to e-commerce.
6. Define e-commerce and describe how it differs from e-business.
7. Identify and describe the unique features of e-commerce technology and discuss their business significance.
8. Describe the major types of e-commerce.
9. Evolution of e-commerce.
10. Discuss the origins and growth of e-commerce.
11. Identify the factors that will define the future of e-commerce.
12. Describe the major themes underlying the study of e-commerce.
13. Identify the major academic disciplines contributing to e-commerce.

Computer Classification

■ Supercomputers

- *A supercomputer is a computer that is at the cutting edge of current processing power and is focused on doing tasks demanding heavy numerical calculations.*
- *The word “supercomputer” is a bit of a misnomer. Today’s supercomputers have a tendency to become indicative of tomorrow’s average computer.*

■ Mainframe:

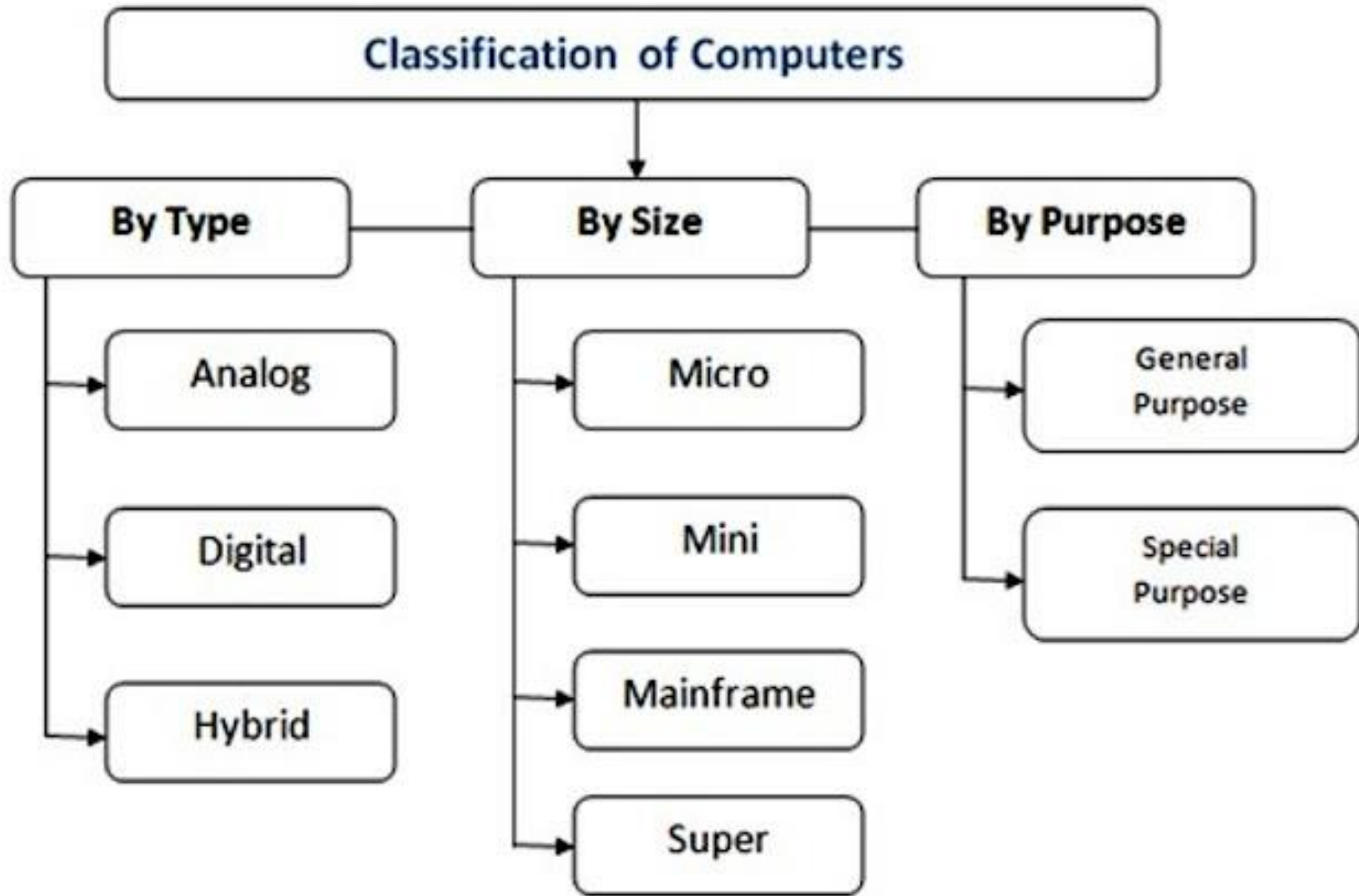
- *term for very large computers*
- *used to handle large amount of data or complex processes*
- *main advantage is reliability*

■ Mid-range or Minicomputers:

- *medium sized, less expensive and smaller*
- *usually a server*

■ Micro-computer or PC (Personal Computer):

- *work stations with computing capabilities*
- *single-users systems linked to form a network*



What is a network?

- Series of **points** or **nodes** interconnected by communication paths
- **Node** is a **connection** point for transmitting data
- Network can **interconnect** with **other networks** to form **global networks**

Benefits of a Network

- **Facilitates** resource sharing
- Provides **reliability**
- **Cost** effective
- Provide a **powerful medium** across geographical divide

When Internet born?

- **Worldwide** network of **computer networks** built on **common standards**
- Created in late **1960s** (1969) when **terminals** were connected with **mainframe** computers.
- The **purpose** was to create a **net** that can **function** even if one **center** is destroyed in a **military attack**.
 - *Network can continue to be functional even if some nodes are destroyed, as long as information can pass through other nodes.*
- Services include the **Web**, **e-mail**, **file transfers**, etc.

In the 1980's

- **Personal** computers or **terminals** were **connected** to a **server**.
- The **server** was a **mainframe**, or **connected** to a **mainframe** computer.
- The **mainframe** was **connected** to another **mainframe** of the **company** in **another location** via **dedicated lines**.
- Only **large companies** could afford the **expense** and **investment** in equipment.

Geographical Distance

- **Local area network (LAN):** small area, share a single server
- **Metropolitan area network (MAN):** a wider network, can bridge several LAN's
- **Wide area network (WAN):** a broader area covered, can include several MAN's

Network Crossed Boundaries

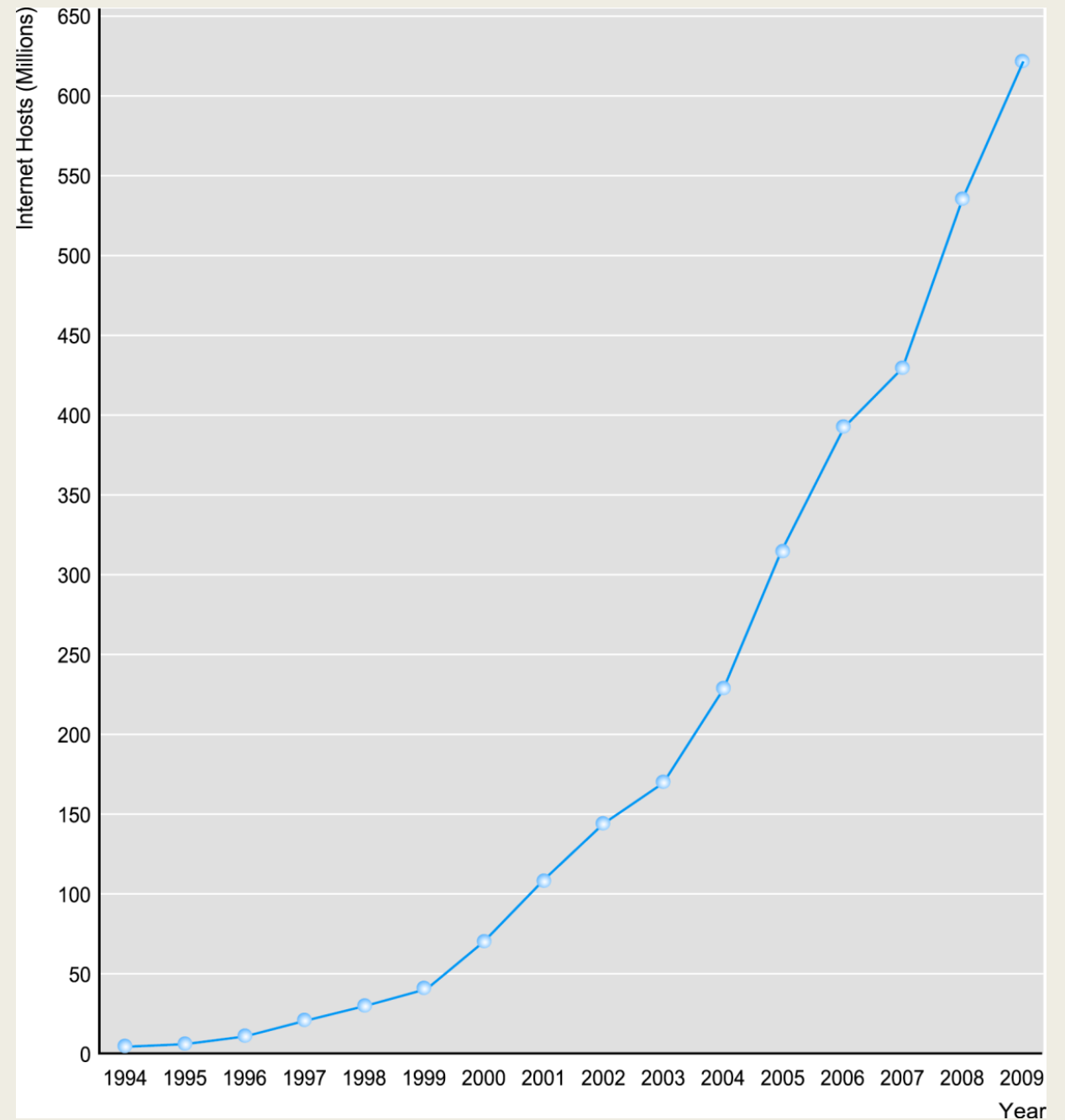
- Internet:
 - *a network of networks that covers the entire globe*
- **Connections** across **countries** and **continents** made through **dedicated** fast lines.
- A **company** may have **one local network** (LAN) in NY, which is connected to the **Internet** through a **Regional network**.
- Well established in **North America**, **Europe** and **certain Asian countries**

When the Web Born?

- Most popular **Internet service**
- Developed in **early 1990s**
- Provides access to **Web pages**
 - *HTML documents that may include text, graphics, animations, music, videos*
- **Web** content has grown **exponentially**
 - *2 billion Web pages in 2000*
 - *At least 40–50 billion pages today (2010)*
 - *Now ? (Crossed Trillian)*

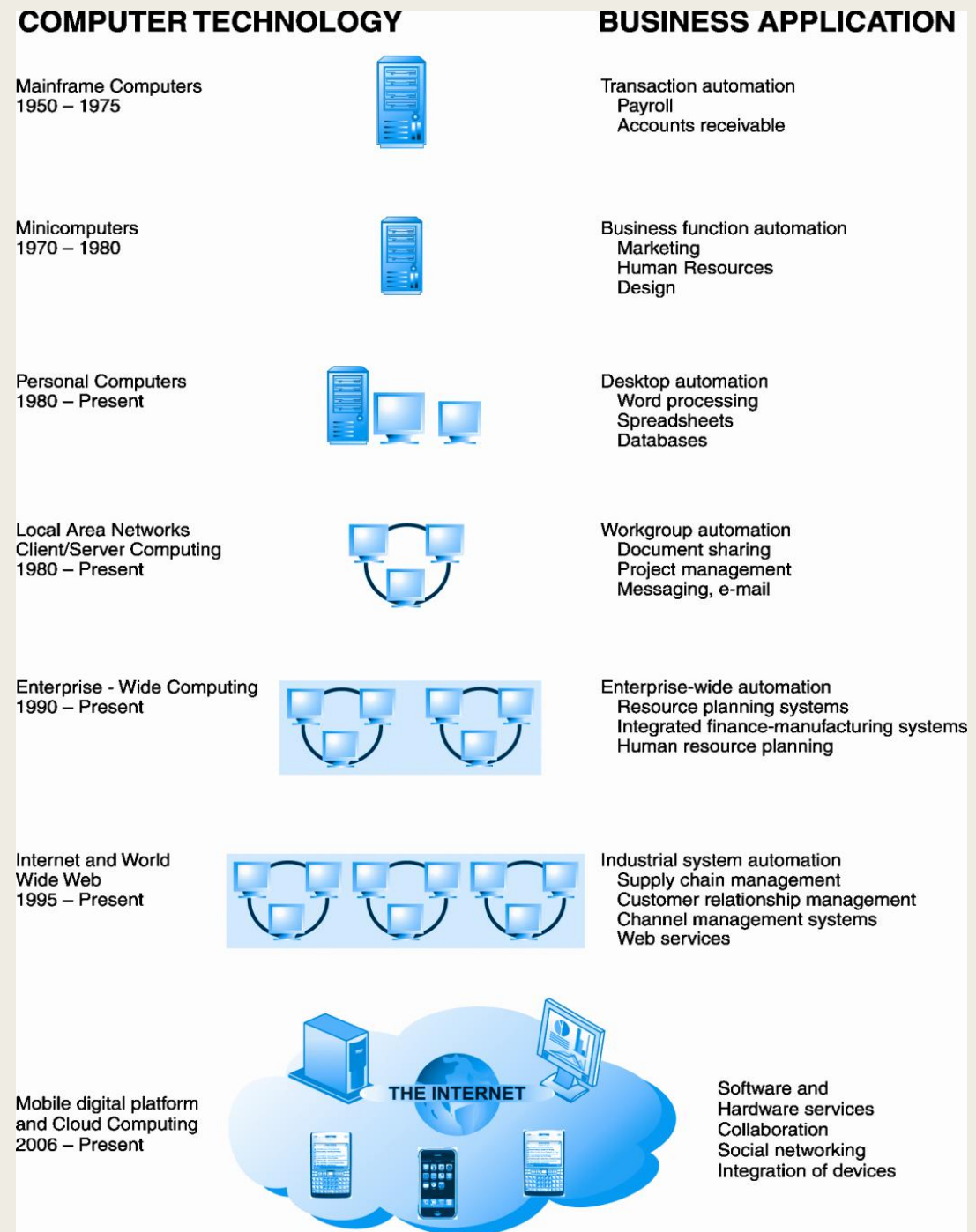
The Growth of the Internet, Measured by Number of Internet Hosts with Domain Names

■ SOURCE: Internet Systems Consortium, Inc., 2009.



The Internet and the evolution of corporate computing gives birth to e-commerce

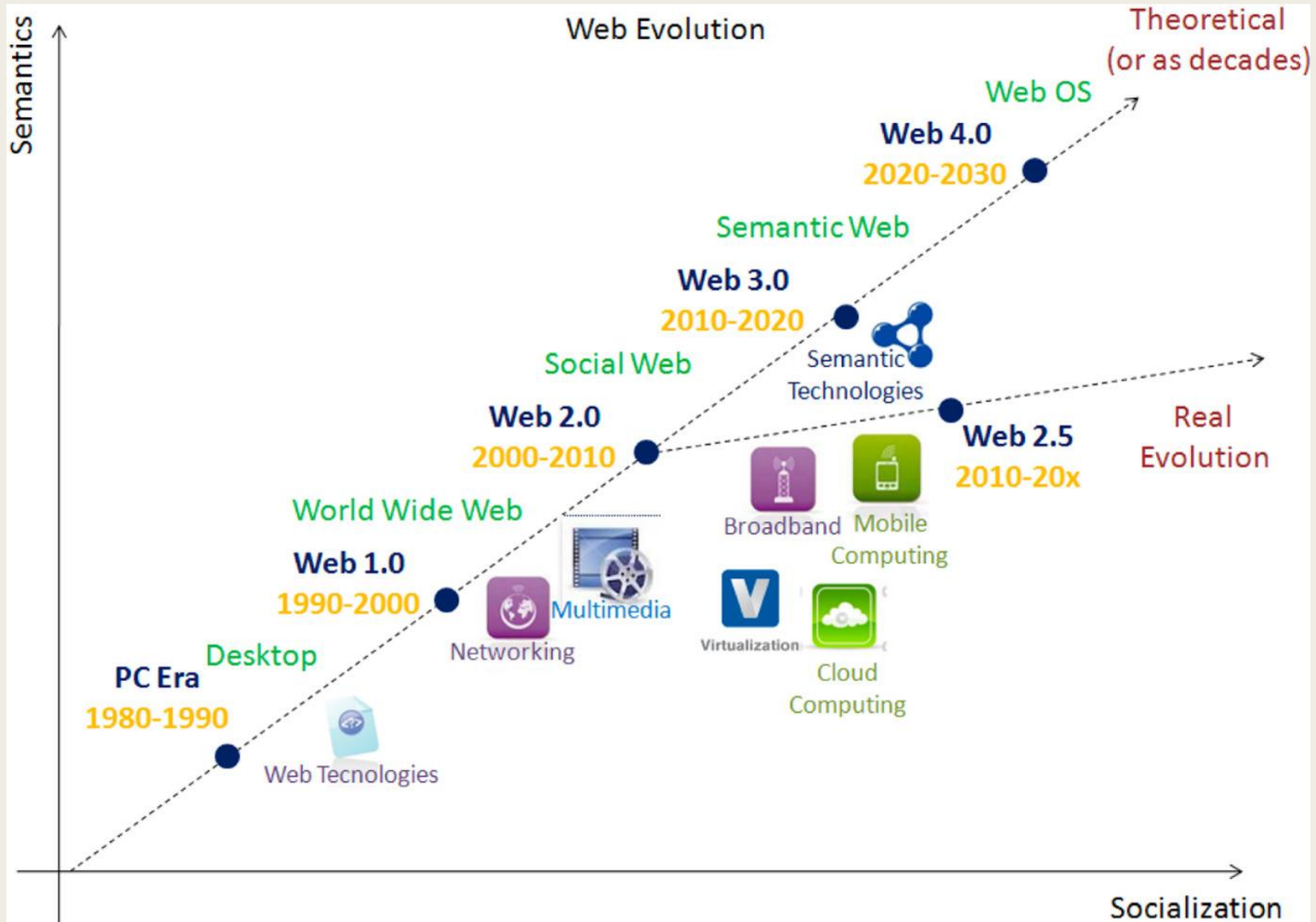
- SOURCE: Internet Systems Consortium, Inc., 2009.



Web to Web 2.0 to Web 3.0

- E-Commerce, internet, set of applications and social media brought together the evolution of web usually called web 2.0;
- The Applications and Technologies allowed the users to:
 - Create and share content (Textual and Pictorial), preferences, bookmarks, and online personas/roles, participate in virtual lives, build online communities
- Examples
 - YouTube, Photobucket, Flickr, Google, iPhone, MySpace, Facebook, LinkedIn, Second Life, Wikipedia

The Web Evolution



Web 1 (1990-2005)

- The **first version** of the internet, also known as **Web 1.0**, was designed specifically for **corporations** rather than **individuals**.
- Just a **few folks** understood how to **gain proficiency**.
- Most **significant** firms **engaged** computer **professionals** to manage the **internet** and **execute** its use to benefit their staff.
- It's **worth** noting that the users were **charged** based on the **number** of **pages** they visited.
 - *Some of the **examples** of Web 1 are MySpace, Google, LiveJournal, and Yahoo.*
- In a **nutshell**, Web 1.0 was a content **delivery network** (CDN) that allowed users to see static data on **websites** without having the chance to **express** their thoughts, opinions, or remarks.
- It also ushered in the dot-com boom, which ran from 1995 to 2000 and fueled a slew of web firms.

Web 2 (2006-Present)

- Now we should move on to the **next generation** of the internet, which is currently in use **worldwide**.
- **Web 2.0** has revolutionized the web and its allied industries.
- This web version has made it exceedingly simple for users to collect, generate, and distribute huge amounts of data with just one click.
- Hundreds of new apps are introduced to the phone's app store every day.
- Also, phones have a built-in camera that produces images that most genuine cameras on the Web 1 could not even imagine a few years ago.
- The best feature of Web 2.0 is that it allows users to create content and distribute it on global networks.
- Social media channels such as Instagram and Facebook and other video streaming applications, blog posting, podcasts, and social bookmarking are all examples of Web 2.0 platforms.
- This period is also known for the ease with which music and video snippets are shared.

Web 3 (fast approaching)

- Web 3.0 is the internet's latest and most talked-about generation.
- Following 2.0, the third iteration, based on sophisticated software programs such as artificial intelligence, will enter the arena of combatants.
- It aspires to provide a trustworthy and data-driven UI that caters to every user. Blockchains, metaverse, and Semantic Web are all expected to be leveraged through Web3.
- Most of the capabilities of Web3 are already present in Web 2.0, so users will probably be puzzled. What's new in it, then?
- Yes, these features are already present in the contemporary internet generation and more are rapidly getting ingrained, but there's more to it.
- Because of the rising adoption of blockchain technology across various apps and sites, the 3.0 version is getting more evolved.
- The main distinction between Web 2 and Web 3 is that Web 3.0 is built on decentralization. Users will own their content and have complete control over using the internet. As we progress through the article, we will discover more about differences.

Web 3 (fast approaching)



What is the difference between Web2 & Web3?

- Web 2.0 and Web 3.0 are similar technologies with similar backgrounds, but they approach challenges differently.
- The fundamental distinction is that Web 2.0 focuses on reading and writing content, whereas Web 3.0 focuses on creating content (Semantic Web).
- The latter is much better, utilizing technology to facilitate information interchange amongst web users while simultaneously enhancing cybersecurity.

Thankyou