

Digital Economy and Strategic Watch

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- ▶ E-commerce
- ▶ Electronic Contracts and Electronic Signatures
- ▶ Electronic Prospecting and Advertising
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▶ **Chapter 2: Strategic Watch**

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- ▶ Watch Process Models
- ▶ Detailed Steps of the Watch Process
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Content

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- ▶ **Chapter 4: Managing a Watch Project**
 - ▶ Managing a Watch Project
 - ▶ Working Effectively in a Team
 - ▶ Identifying Information Sources

Chapter 1: Digital Economy

- ▶ 1.1 Definition and History
- ▶ **I. Definition of the Digital Economy**
 - ▶ The digital economy is an economic system that operates primarily on digital technologies, based on digital and computing resources. It includes all business, economic, social, and cultural activities that are enabled by the internet and other digital communication technologies.
- ▶ **Core Concept:**
 - ▶ It is the convergence of computing and telecommunications technologies on the internet, which has created a new, interconnected economic environment.

Chapter 1: Digital Economy

▶ Key Characteristics:

- ▶ **Digitization:** The conversion of physical products (like books, music, CDs) and processes (like banking, communication) into digital formats.
- ▶ **Networked:** It thrives on connectivity, allowing for instant communication and transaction across the globe.
- ▶ **Data-Driven:** Data is the "new oil" - a critical resource for innovation, personalization, and decision-making.
- ▶ **Platform-Based:** Many digital economy businesses are platforms that connect users (e.g., Uber, Airbnb, Amazon Marketplace).

II. Historical Evolution: Key Dates and Milestones

- ▶ The digital economy didn't appear overnight. It evolved through distinct technological waves.
- ▶ **The Foundations (Pre-1990s)**
 - ▶ **1947:** Invention of the **transistor**. This is the fundamental building block of all modern electronics and the digital age.
 - ▶ **1969:** The U.S. Department of Defense creates **ARPANET** (Advanced Research Projects Agency Network). It was the first network to use the TCP/IP protocol suite, forming the technical foundation of the internet.
 - ▶ **1970s-1980s:** The rise of **personal computers (PCs)** from companies like Apple and IBM. This put computing power on the desks of individuals and businesses.

The Commercialization of the Internet (1990s)

- ▶ **1991:** **Tim Berners-Lee**, a researcher at CERN, invents the **World Wide Web (WWW)**, creating a system of interlinked hypertext documents accessible via the internet. This made the internet user-friendly.
- ▶ **1993:** The release of the **Mosaic web browser** (precursor to Netscape Navigator) popularized graphical web browsing, opening the internet to the masses.
- ▶ **1995:** A pivotal year:
 - ▶ [Amazon.com](https://www.amazon.com) is launched by Jeff Bezos, starting as an online bookstore and pioneering e-commerce.
 - ▶ **eBay** (formerly AuctionWeb) is founded, creating a massive person-to-person marketplace.
 - ▶ **Netscape's IPO** is a massive success, sparking the "dot-com boom" and a frenzy of investment in internet-based companies.
- ▶ **Late 1990s:** The "**Dot-com Bubble**" inflates as speculation in internet companies far outpaces their actual profitability.

The Web 2.0 and Mobile Revolution (2000s)

- ▶ **2000-2001: The Dot-com Bubble bursts**, causing a major market crash but also weeding out unsustainable businesses.
- ▶ **2004: Facebook** is launched, emblematic of the "**Web 2.0**" era, characterized by user-generated content, social networking, and interactivity.
- ▶ **2007: A revolutionary year:**
 - ▶ **Apple launches the iPhone**, defining the modern smartphone and shifting a significant portion of digital activity to mobile devices ("Mobile-First").
 - ▶ **Amazon launches Amazon Web Services (AWS)**, mainstreaming cloud computing and providing the scalable infrastructure for the next wave of digital startups.
- ▶ **2008: Google releases the Android mobile operating system**, further accelerating the mobile revolution.
- ▶

The Modern Era: Platform Dominance and Data (2010s - Present)

- ▶ **2010s:** The rise of the "**GAFAM**" (Google, Apple, Facebook (now Meta), Amazon, Microsoft) and other tech giants. The economy becomes dominated by digital platforms that control vast amounts of data and market access.
- ▶ **2010s-Present: The Data Economy** matures. Big Data analytics, Artificial Intelligence (AI), and Machine Learning become central to business strategy, driven by the data collected from users.
- ▶ **2020s: Acceleration of Digital Transformation** due to the COVID-19 pandemic, forcing businesses, education, and services online. Emerging technologies like the **Metaverse**, **Blockchain**, and **Advanced AI (Generative AI like ChatGPT)** begin to define the next frontier of the digital economy.

Summary of the Evolution:

Era	Key Driver	Primary Focus
Foundations (1970s-80s)	Personal Computing	Digitizing individual tasks and data.
Internet Boom (1990s)	World Wide Web	Connecting information and enabling the first e-commerce.
Web 2.0 / Mobile (2000s)	Social Media & Smartphones	Connecting people and shifting access to mobile.
Platform & Data (2010s+)	AI, Cloud, & Big Data	Leveraging data for intelligence, automation, and new platform-based business models.

This historical context shows that the Digital Economy is not a static concept but a continuously evolving ecosystem built upon a series of transformative technological breakthroughs.

1.2 E-commerce

▶ I. Definition

- ▶ **E-commerce (Electronic Commerce)** is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet. These transactions occur in various forms, including **Business-to-Business (B2B)**, **Business-to-Consumer (B2C)**, **Consumer-to-Consumer (C2C)**, and more.
- ▶ In simple terms, it's **commercial activity conducted online**.
- ▶

II. Fundamental E-commerce Models

- ▶ E-commerce is categorized based on who is selling to whom. The main models are:
 - ▶ **Business-to-Consumer B2C:** The most common form. Transactions between a business and individual consumers.
 - ▶ **Business-to-Business B2B:** Transactions between businesses. Often involves larger order values and complex contracts.
 - ▶ **Consumer-to-Consumer C2C:** Transactions between private individuals, facilitated by a third-party platform.
 - ▶ **Consumer-to-Business C2B:** An individual sells goods or services to a business.
 - ▶ **Business-to-Government B2G:** Businesses selling goods and services to government agencies.
 - ▶ **Mobile Commerce M-Commerce:** All e-commerce transactions conducted exclusively via mobile devices (smartphones, tablets).

III. Key Tools and Technologies for E-commerce

- ▶ For a business to operate online, it relies on a stack of technologies:
 1. **E-commerce Platform:** The software foundation to build and manage the online store.
 - ▶ **All-in-One Platforms:** Shopify, BigCommerce, Wix (easiest for beginners).
 - ▶ **Open-Source Platforms:** WooCommerce (for WordPress), Magento (highly customizable, for larger businesses).
 2. **Online Payment Gateways:** Services that authorize and process credit card and other payments securely.
 - ▶ **Examples:** Stripe, PayPal, Square, Apple Pay, Google Pay.

III. Key Tools and Technologies for E-commerce

3. **Shopping Cart Software:** The functionality that allows users to select items, review their order, and proceed to checkout.
 - ▶ *This is almost always a built-in feature of e-commerce platforms.*
4. **SSL Certificate (Secure Sockets Layer):** A digital certificate that provides authentication and encrypts data sent between a web browser and a server. It's what turns "http" into "https"—the 's' stands for 'secure'. Essential for customer trust.

III. Key Tools and Technologies for E-commerce

5. **CRM (Customer Relationship Management) Software:** Tools to manage interactions with current and potential customers.
 - ▶ **Examples:** Salesforce, HubSpot, Zoho CRM.
6. **Digital Marketing Tools:**
 - ▶ **Email Marketing:** Mailchimp, Klaviyo.
 - ▶ **SEO (Search Engine Optimization) Tools:** Ahrefs, SEMrush.
 - ▶ **Social Media Management:** Hootsuite, Buffer.

IV. Concrete Examples in Action

1. Buying a book on Amazon: (B2C)
2. A freelancer designing a logo for a startup on Fiverr: (C2B)
3. Selling your old sofa on Facebook Marketplace: (C2C)
4. A restaurant ordering supplies from a wholesale food distributor's website: (B2B)
5. Ordering and paying for a coffee through an application on your phone: (M-Commerce)

V. Primary Goals of E-commerce

- ▶ The strategic objectives for businesses engaging in e-commerce are multifaceted:

Goal Category	Specific Objectives
Revenue & Growth	• Increase Sales: Reach a global audience, 24/7. • Expand Market Reach: Sell beyond geographical limitations. • Introduce New Products & Services quickly and with lower cost.

V. Primary Goals of E-commerce

Goal Category	Specific Objectives
1-Revenue & Growth	• Increase Sales: Reach a global audience, 24/7. • Expand Market Reach: Sell beyond geographical limitations. • Introduce New Products & Services quickly and with lower cost.
2-Customer-Centric	• Enhance Customer Experience: Provide convenience, easy search, and personalized recommendations. • Build Customer Loyalty: Through loyalty programs, personalized communication, and excellent service. • Gather Customer Data: Understand buying habits to improve marketing and product offerings.
3- Operational & Cost	• Reduce Operational Costs: Lower overhead compared to physical stores (rent, staff). • Increase Efficiency: Automate inventory, order processing, and customer service. • Optimize the Supply Chain: Integrate online sales data with inventory and logistics.

V. Primary Goals of E-commerce

4-Strategic

- **Build a Strong Brand Presence** online.
- **Gain a Competitive Advantage** by being where the customers are.
- **Remain Relevant** in an increasingly digital world.

In summary, E-commerce is the engine of the modern digital economy. It's not just a sales channel but a comprehensive business strategy that leverages technology to achieve fundamental business goals of growth, efficiency, and customer connection.

1.3 Electronic Contracts and Electronic Signatures

- ▶ **a) Electronic Contract (e-Contract)**
- ▶ An **electronic contract** is a legally binding agreement formed and executed in a digital format rather than on paper. The core elements of a valid contract—offer, acceptance, consideration, and the intention to create legal relations—remain the same; only the medium changes.
- ▶ **In Simple Terms:** It's a contract created, signed, and stored online.

1.3 Electronic Contracts and Electronic Signatures

- ▶ **b) Electronic Signature (e-Signature)**
- ▶ An **electronic signature** is any sound, symbol, or electronic process attached to or logically associated with a record (like a contract) and executed or adopted by a person with the intent to sign the record.
- ▶ **In Simple Terms:** It's the digital equivalent of a handwritten signature, used to indicate consent and approval of the contents of a document.

II. The Legal Foundation: The Principle of Functional Equivalence

- ▶ The global adoption of e-contracts and e-signatures is based on a key legal principle called "functional equivalence."
- ▶ This principle, established by laws like the U.S. E-SIGN Act (2000) and the EU eIDAS Regulation (2014), states that:
 - ▶ An electronic contract or signature should not be denied legal effect, validity, or enforceability solely because it is in electronic form.
- ▶ In other words, if an e-contract or e-signature fulfills the same function as a paper-based one, it is just as legally valid.

III. Types of Electronic Signatures

- ▶ Not all e-signatures are created equal. They exist on a spectrum of security and legal weight.
- ▶ **1. Simple Electronic Signature (SES):** Any basic electronic data used as a signature. Low level of identity assurance. • Clicking "I Agree" to Terms of Service. Typing your name in an email A scanned image of your handwritten signature [Customer Name], a checkbox, an email footer.
- ▶ **2. Advanced Electronic Signature (AES)** Uniquely linked to the signatory, capable of identifying them, created using means under the signatory's sole control, and linked to the data so that any subsequent change is detectable. (eIDAS definition) • Signing internal company documents. Business contracts where a higher level of trust is needed. Signing with a tool like Adobe Sign or DocuSign that records audit trails (IP, timestamp).

III. Types of Electronic Signatures

- ▶ **3. Qualified Electronic Signature (QES):** An Advanced Electronic Signature that is created by a Qualified Signature Creation Device (QSCD) and is based on a qualified certificate for electronic signatures. It has the highest legal standing. • Legally required filings with government bodies. High-value transactions (property, large loans). In the EU, a QES is legally equivalent to a handwritten signature. Using a national e-ID card or a dedicated cryptographic hardware token.
- ▶ **Analogy:** Think of signatures like seals:
 - ▶ 1- SES: A stamp anyone can buy.
 - ▶ 2- AES: A custom wax seal with a unique pattern.
 - ▶ 3- QES: An official notary seal.

VI. Goals and Importance in the Digital Economy

- ▶ The adoption of e-contracts and e-signatures is driven by clear business and economic goals:

1. Speed & Efficiency

Sign and execute contracts in minutes from anywhere in the world, drastically reducing the "sales cycle" from days/weeks to hours.

2. Cost Reduction

Eliminates printing, scanning, postage, courier, and physical storage costs.

VI. Goals and Importance in the Digital Economy

3. Enhanced Security & Audit Trail

Advanced e-signature platforms provide a detailed audit trail (who, when, where, IP address) and tamper-evident sealing, which is more secure than a signed paper document in a filing cabinet.

4. Improved Customer Experience

Allows for seamless, remote onboarding and transactions, which customers now expect.

5. Global Reach & Compliance

Facilitates cross-border business by complying with international e-signature laws, breaking down geographical barriers.

VI. Goals and Importance in the Digital Economy

- ▶ **Summary**
- ▶ **Electronic Contracts and Signatures** are the legal and procedural backbone of the digital economy. They transform traditional, paper-based agreements into dynamic, secure, and efficient digital processes, enabling everything from everyday online shopping to multi-million dollar international business deals (qualified e-signatures). Their legal validity, grounded in the principle of functional equivalence, is what makes trusted digital commerce possible.