



A webinar on

Technology Trends in Finance and Business

A Global Perspective with Local Insight

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19th Feb 2025



Outlines

- ❑ Objectives of the Webinar
- ❑ Digital Economy and IR 4.0
- ❑ What is Digital Business and Financial Technology
- ❑ Emerging Technologies in Business Management and Operations
- ❑ Technologies in Financial Service Industries
- ❑ Technologies for the Future Business World
- ❑ Tools, Infrastructures and Skill Development

Objectives of the Webinar

- ✓ Introduce the digital economy & Industry 4.0.
- ✓ Define digital business and financial technology.
- ✓ Explore emerging technologies in business management.
- ✓ Examine technologies in financial services.



Objectives of the Webinar

- ✓ Explain the software tools and programming used in business & finance.
- ✓ Discuss future business technologies
- ✓ Prepare participants for the digital economy and Fourth Industrial Revolution.



Digital Economy and IR 4.0

Digital Economy: The digital economy refers to an economic system driven by digital technologies and the internet.



Digital Economy and IR 4.0

Digital Platforms



Connectivity



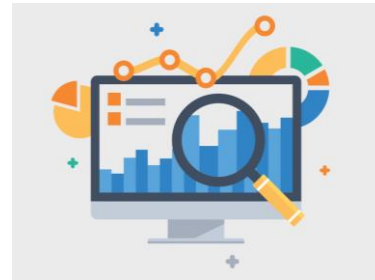
Innovation



Efficiency



Data Utilization



Digital Economy and IR 4.0

- ✓ European Union's Digital Single Market
- ✓ United States Digital Strategy
- ✓ ASEAN Digital Integration Framework

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និង ការចាប់យកឌីជីថល

2021
2025

2026
2030

ការចាប់យក និង
ការធ្វើបរិវត្តកម្មឌីជីថល

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2031
2035

Digital Economy and IR 4.0

The Fourth Industrial Revolution (IR 4.0) is about using digital technologies in industries and everyday life.

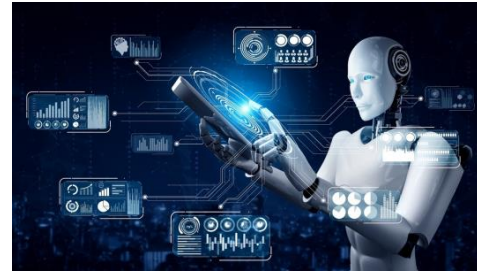


Digital Economy and IR 4.0

Automation



Artificial Intelligence (AI)



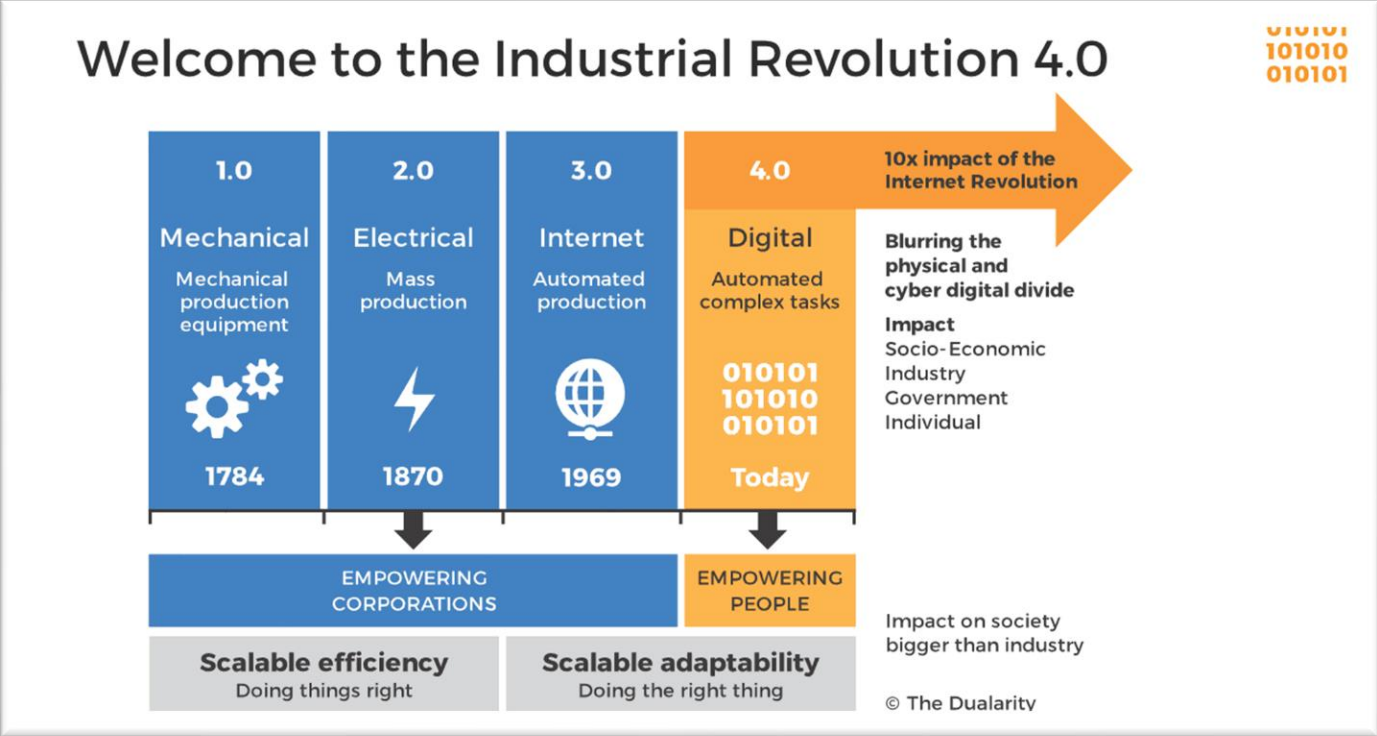
Internet of Things (IoT)



Big Data



Digital Economy and IR 4.0



<https://www.theduality.com/industrial-revolution-4-0-2/>

Digital Economy and IR 4.0

Relationship Between Digital Economy and IR 4.0:

- **Foundation:** The digital economy relies on technologies from IR 4.0, like AI & IoT.
- **Transformation:** IR 4.0 changes industries, creating new business models central to the digital economy.



Digital Economy and IR 4.0

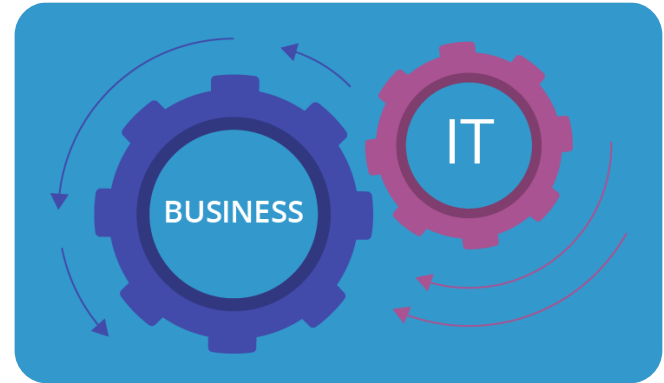
- **Efficiency:** Both focus on improving efficiency and fostering innovation.
- **Data Utilization:** The digital economy uses data from IR 4.0 for better decision-making.
- **Global Connectivity:** Both enhance global trade and communication through digital platforms.



What is Digital Business and Financial Technology

Digital Business is a business that uses digital technology to operate and connect with customers.

- It involves the use of various IT tools, systems, and applications to achieve organizational goals and improve overall efficiency.



<https://www.scnsoft.com/blog/business-it-alignment-challenges-and-rewards>

What is Digital Business and Financial Technology

Elements of Digital Business:

Infrastructure

Data Management
Tools

Cybersecurity

Enterprise
Systems

Communication &
Collaboration Tools

Strategic Planning

What is Digital Business and Financial Technology

Financial Technology focuses on technologies that make financial services easier and faster.

- It encompasses the use of various technological tools, platforms, and applications to meet financial objectives and enhance overall efficiency.



What is Digital Business and Financial Technology

**Digital
Payments**

**Lending and
Crowdfundin
g Platforms**

**Robo-
Advisors**

**Blockchain &
Crypto-
currency**

InsurTech

RegTech

**Open
Banking**

**AI &
Machine
Learning**

What is Digital Business and Financial Technology

Why technology is so important?

- ✓ Optimizes operations
- ✓ Enhances customer experiences
- ✓ Manages risks
- ✓ Fosters innovation
- ✓ Ensures regulatory compliance



What is Digital Business and Financial Technology

Business and Finance without Technology:

- Operational Challenges
- Limited Data Analysis
- Customer Service Limitations
- Security and Risk
- Limited Innovation
- Compliance Challenges



What is Digital Business and Financial Technology

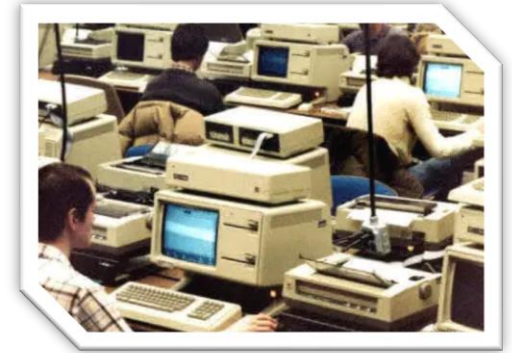
Early Computing
Systems
(1950s-1960s)



Emergence of
Personal Computers
(1970s-1980s)



Networking and
Connectivity
(1980s-1990s)



What is Digital Business and Financial Technology

Internet and
E-Commerce
(1990s-2000s)



Big Data and
Analytics
(2000s-Present)



FinTech and Digital
Transformation
(2010s-Present)



Cybersecurity
and Compliance
(Ongoing)



Emerging Technologies in Business Management and Operations

1. Data Science



Big Data



Database Management



Data Analytics



Data Engineering



Business Intelligence



Emerging Technologies in Business Management and Operations

2. Artificial Intelligence



Computer Vision
Image/Signal/Video Processing



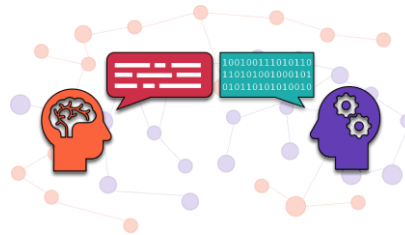
Machine Learning



Deep Learning



Natural Language Processing



- Generative AI
- Large Language Model
- AI Agent

Emerging Technologies in Business Management and Operations

3. Internet of Things (IoT)



4. Cloud Computing



5. Computer Networking



Emerging Technologies in Business Management and Operations

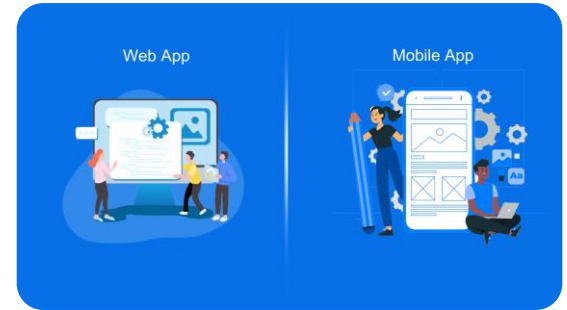
6. Cyber Security



7. Robotics Process Automation



8. Web/Mobile Application



Emerging Technologies in Business Management and Operations

Operations and Supply Chain Management

Amazon revolutionized supply chain management with its use of Technology. The company's robust inventory management systems, powered by AI and machine learning, predict demand patterns, optimize warehouse operations with robots, and ensure timely deliveries through sophisticated logistics algorithms.



Emerging Technologies in Business Management and Operations

Sale & Marketing

Netflix utilizes data analytics and AI algorithms to personalize user experiences. Its recommendation system analyzes user behavior to suggest content, driving engagement and customer retention. Additionally, its targeted marketing campaigns leverage user data for better content promotion.



Emerging Technologies in Business Management and Operations

Human Resource

Google's HR functions utilize IT extensively. Its HRIS systems streamline employee data management, while digital platforms facilitate remote work and collaborative spaces, enhancing productivity and team engagement.



Emerging Technologies in Business Management and Operations

Customer Service

Zappos, an online shoe and clothing retailer, integrates IT into customer service. Its call center uses advanced CRM systems to create a personalized customer experience, enabling representatives to access customer data swiftly, resulting in exceptional service and high customer satisfaction.



Emerging Technologies in Business Management and Operations

Strategic Planning and Decision Making

Walmart employs data analytics and BI tools for strategic decision-making. Through its Retail Link system, it analyzes sales data, trends, and inventory levels in real-time, optimizing inventory and store performance, allowing for proactive decision-making.



Emerging Technologies in Business Management and Operations

Data Storage and Management

Cloud computing platforms like AWS or Azure offer scalable storage solutions, allowing businesses to store and manage large volumes of data without significant infrastructure investments.



Technologies in Financial Service Industries

1. Artificial Intelligence (AI)



2. Data Science



3. Blockchain



Technologies in Financial Service Industries

4. Mobile Banking



5. Cybersecurity

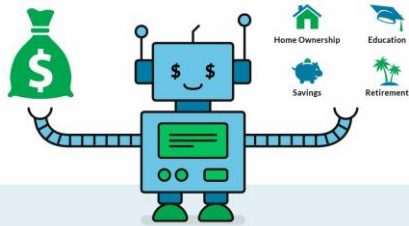


6. Cloud Computing



Technologies in Financial Service Industries

7. Robo-Advisors



8. Payment Processing Technology



9. RegTech (Regulatory Technology)



Technologies in Financial Service Industries

10. Cryptocurrency



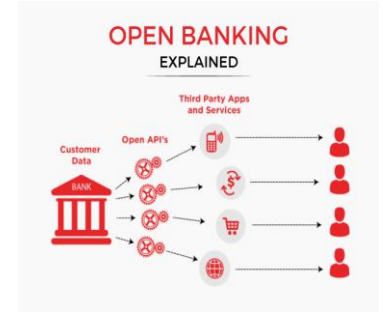
11. Smart Contracts



12. Robotic Process Automation



13. Open Banking



Technologies in Financial Service Industries

Bank

JPMorgan Chase, a multinational bank, provides a range of financial services, including retail banking, investment banking, and asset management, leveraging technologies for online banking, mobile apps, and automated processes.



Technologies in Financial Service Industries

Insurance

Allstate Corporation is an insurance provider that uses IT for underwriting, claims processing, and customer service, implementing tools for risk assessment and personalized policy offerings.



Technologies in Financial Service Industries

Investment Management

BlackRock, a global investment management corporation, uses IT for data analytics, algorithmic trading, and portfolio optimization to make informed investment decisions.

BlackRock



Vanguard



UBS

Goldman Sachs



STATE STREET



PGIM



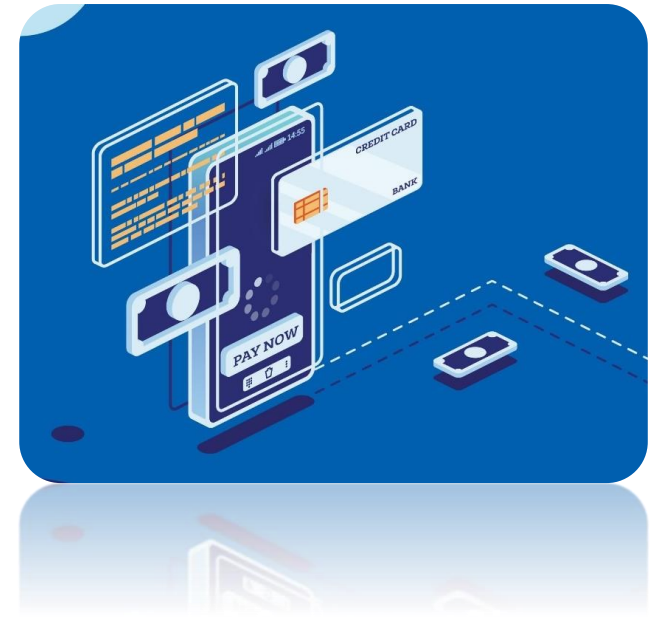
PIMCO



Technologies in Financial Service Industries

Payments and FinTech

PayPal transformed online transactions by integrating secure IT systems. Its encryption technology ensures safe payments, while its financial software simplifies online transactions for businesses and individuals globally, enhancing financial security and ease of use.



Technologies in Financial Service Industries

Wealth Management

Morgan Stanley Wealth Management utilizes IT for client relationship management, data analysis, and personalized investment strategies.



Technologies for the Future Business World

1. Quantum Computing



2. AV/VR/Mixed Reality



3. 6G and Beyond



Technologies for the Future Business World

4. Super AI



5. Decentralized Finance (DeFi)



6. Advanced Natural Language Processing

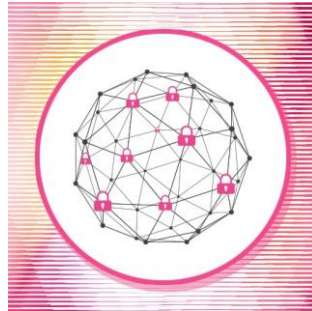


Technologies for the Future Business World

7. Internet of Things Expansion



8. Cybersecurity Mesh Architecture



9. Blockchain



Technologies for the Future Business World

10. Digital Twins



11. Remote Work Technologies



12. Autonomous Vehicles and Drones



Tools, Infrastructure and Skill Development

Skill Development

- Digital Literacy/AI Tools & Prompt
- Database Skills
- Coding Skills
- Data Analytics Skills
- Financial Technology Expertise
- Agile Methodologies
- Cybersecurity



Tools, Infrastructures and Skill Development

Tools and Technologies

- Data Analytics Platforms (Power BI, Tableau, SAS, ..)
- Cloud Computing Services (AWS, Azure, Google Cloud, ..)
- Artificial Intelligence and Machine Learning
- Blockchain Technology (Ethereum, Hyperledger, Corda, ..)



Tools, Infrastructures and Skill Development

- Robotic Process Automation (UiPath, Blue Prism, TagUI, ..)
- Customer Relationship Management (CRM) Systems (Salesforce, HubSpot, Zoho CRM, ..)
- Open-source (Odoo, GnuCash, Deepseek, FrontAccounting ..)



Tools, Infrastructures and Skill Development

Infrastructure

- High-Speed Internet and Networking
- Cloud Infrastructure
- Data center
- Cybersecurity Infrastructure (Firewall, encryption, ..)
- Collaboration Tools (Slack, Microsoft Teams, or Zoom, ..)
- High specification computer



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