



# Introduction to

Fundamental Concepts of Financial Technology and Digital Finance

# FinTech

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# Definition of Fintech

Financial technology (Fintech) is used to describe new **technology** that seeks to **improve** and **automate** the delivery and use of **financial services**.

Fintech is utilized to help **companies, business owners** and **consumers** better manage their financial operations, through specialized **software** and **algorithms** that are used on computers and, increasingly, smartphones.





## The Beginning (1858-1866)

The establishment of the first transatlantic telegraph cable.



## First Money Transfer (1918)

**Fedwire** invented in the USA enabled the first electronic money transfer using Morse Code and connecting 12 Federal Banks by telegraph.

# Fintech 1.0 (1858-1967)



## The Origin of the Credit Card (1914-1968)

1914: The US Western Union introduced metal cards, giving deferred payment options to certain customers, this became known as “metal money”.

1950: The Diners Club introduced the first universal credit card, these were plastic payment cards aimed at diners specifically. By the end of 1950 200 000 people were using Diners Club.

1958: American Express introduced its first charge card.

1966: The first credit card was issued by Barclay known as the Barclaycard, in the UK.

1968 Eurocard International and MasterCard International entered into a strategic alliance. This allowed for other cards to be accepted on each other's network, which meant that MasterCard could get an instant European acceptance network and EuroCard could get accepted worldwide.

## ATMs (1967)

In 1967, the world got its first ATM installed by Barclays in London and by 1984, the number of ATMs installed worldwide totalled 100,000.





## The Beginning of Digital (1971 – 1990)

**1971:** The NASDAQ (National Association of Securities Dealers Automated Quotations) was established in the USA, the world's first digital stock exchange.

**1973:** SWIFT (Society for Worldwide Interbank Financial Telecommunication) is established in Brussels to solve the problem of communicating payments across borders. During this time the use of the Internet started to rise and this led to the creation of digital banking platforms.



## Digital Banking (2000 & 2006)

2000: PayPal was created

The first online payment system.  
By 2006, 80% of the banks offered internet banking.



**Card Payment Security (2004)**  
**The Payment Card Industry Security Standards Council (PCI SSC)** was formed. began as five different programs: Visa Card Information Security Program, MasterCard Site Data Protection, American Express Data Security Operating Policy, Discover Information and Compliance

# Fintech 2.0 (1967- 2008)

## Global Financial Crisis (2007 – 2008)

2008: The Global Financial Crisis refers to the period of extreme stress in global financial markets and banking systems. The Global Financial Crisis was the catalyst for the sudden increase in fintech start-ups.

## Fintech 3.0 (2008-2014)

### The Birth of Bitcoin (2009)

The first version of Bitcoin emerged and further on more cryptocurrencies were born fueled by blockchain technology.

**2009:** Venmo is launched and allows customers to transfer money via a mobile phone.

**2011-2014:** Google Wallet and Apple Pay is released allowing consumers to make payments with their Smartphone using NFC.

## Fintech 3.5 (2014- early 2020)

**2015:** The first digital-only bank Atom is launched in the UK, at the same time Stripe a payment service provider started gaining widespread popularity.

**2017:** Alibaba introduces Smile Pay Service where one pays by smiling at a 3D camera.

**2019:** the spread of contactless payment using google wallet, Apple pay, Venmo/ the spread of E-commerce/ the use of e-banks (Neobanks)/ the mergence of InsurTech,

## Fintech 4.0 ( late 2020-Now)

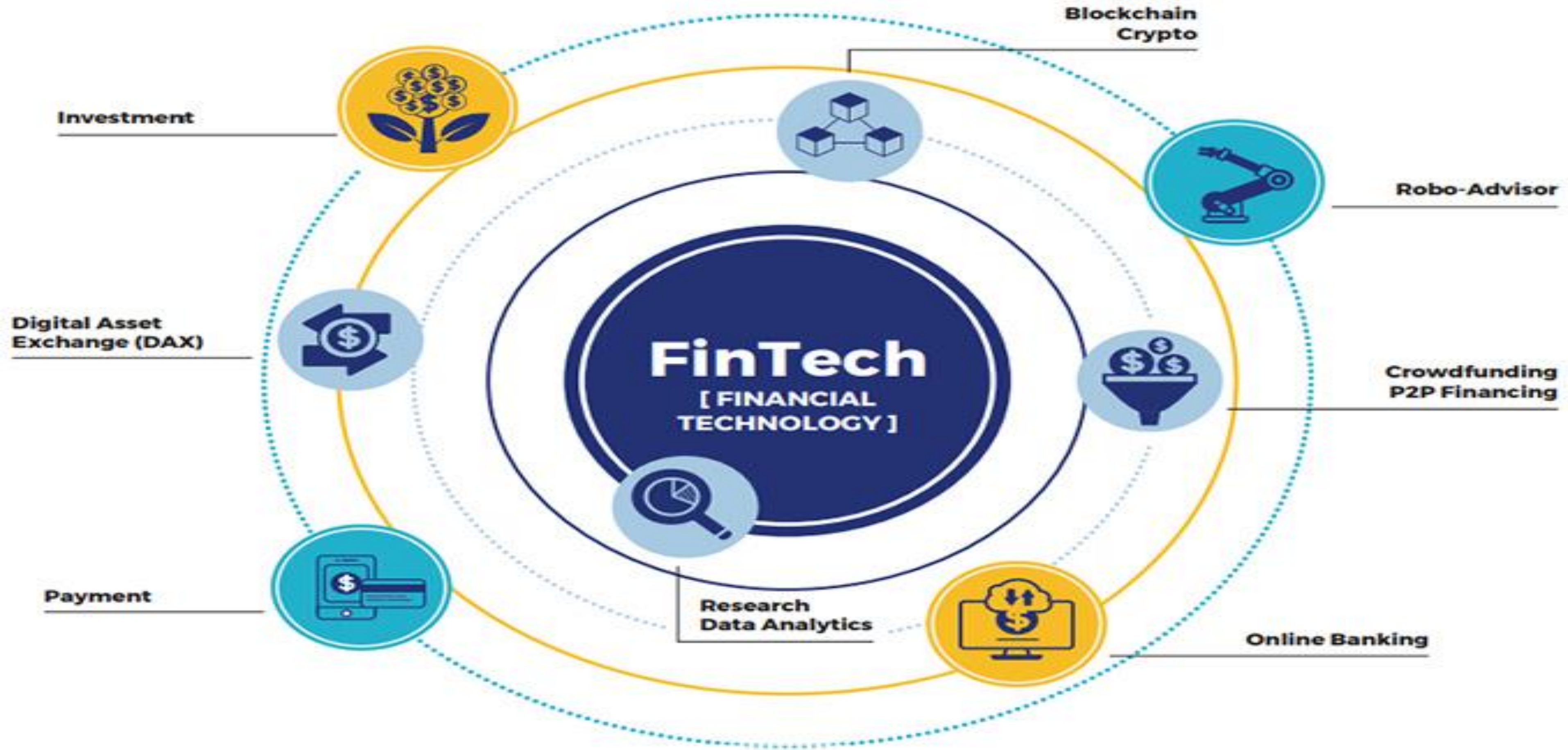
The adoption of cutting-edge technologies like AI, blockchain, and big data.

enhanced customer service through AI-powered chatbots and virtual assistants.





# Key Fintech Areas





# Why is Fintech Important?

