TECHNOLOGY AND THE DEMOCRATIZATION OF LENDING

No Technology

ANCIENT GREECE & ANCIENT ROME

Pawnbrokers
One of the oldest money lending practices and a form of secured lending with items held as collateral, keeping risk down for the lender.

MIDDLE AGES

The Merchant of Venice
Christians were forbidden from lending money with interest while Jewish people could lend with interest to non-Jewish people. Traders in Venice at this time had access to money lending services from Jewish lenders.

'Banca'
The benches where money lenders did their business from, giving rise to the work 'bank.' When a lender ceased trading he would smash his bench - 'banca rupta,' hence 'bankrupt'

MIDDLE AGES THROUGH 1800s

Indentured Loans
The rich lent to those without means and in return the borrower worked off their debt by working on the lender's estate.

18TH CENTURY

Rothschild and International Banking
Mayer Amschel Rothschild 'invented' international banking when he placed his sons in five European cities, creating a network for transferring money. Within a century, the Rothschilds were among the wealthiest families in the world.

The fixing of the daily gold price took place at Rothschild Bank offices for 85 years (1919-2004). Proceedings were paused by participants raising a small Union Jack flag.

LATE 18TH CENTURY

Building Societies
Building societies first began in Birmingham in the UK in taverns and coffee houses. Ketley's Building Society was founded in 1775 by the landlord of an inn. Monthly member subscriptions financed the building of member houses.

EARLY 1800s

A New Era in Lending
The Philadelphia Savings Fund Society was started so that average Americans could get access to loans and a means of saving.

1932

Mortgage Finance
U.S. congress created the Federal Home Loan Bank system to support residential mortgage lending by local financial institutions, ushering in a new era of mortgage financing.

Early Technology

1950s-1970s

Credit Cards and Computerization

1950

Businessman Frank McNamara paid a restaurant bill with a small cardboard card, known today as a Diners Club® Card.

1958

Bank of America launched the BankAmericard, later to become Visa, in Fresno, California where 45% of the residents were its customers. A card was sent to 60,000 residents and so the bank was able to convince merchants to accept it.

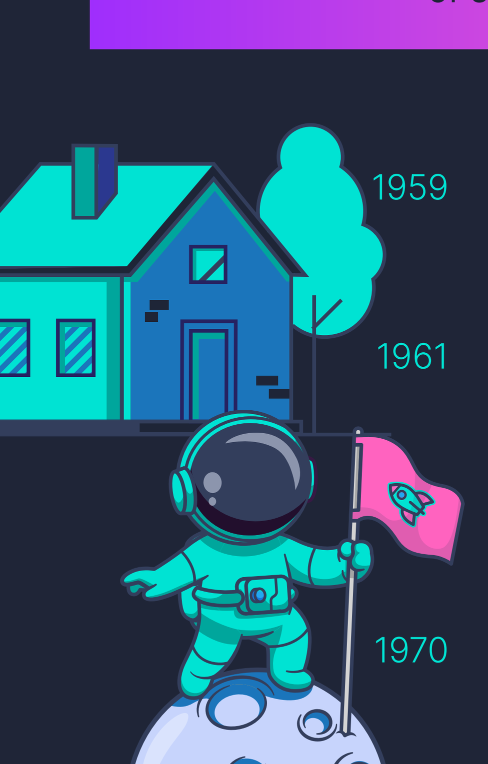
1966

Barclaycard was the UK's first credit card.

1973

In 1973 Dee Hock, CEO of Visa computerized the credit card system reducing transaction time to less than a minute.

From early beginnings, the credit card goes on to become a popular method of payment. Before computerization, payment was slow and manual with phone calls between merchants, banks and credit card issuers to check credit balances, and lists of stolen card numbers to check against.



1959

Data in Credit Decisions
Lenders first start using FICO scores to make informed credit decisions.

1961

The reverse mortgage is born. The very first is written to Nellie Young in Portland, Maine by Nelson Haynes of Deering Savings & Loan to help the widowed wife of his high school football coach stay in her home after losing her husband.

1970

The Federal Home Loan Mortgage Corporation (known as Freddie Mac) is chartered by Congress, creating the secondary market for conventional home loans.

1980s and 1990s

Internet and E-Commerce
Opportunities grow for online lending specialists.

1985

Detroit-based mortgage lender Quicken Loans launches with much of the application and review process conducted online.

In the first five months of 2015 Quicken Loans lent out $24.3 billion.

1999

First Internet Bank pioneered online-only banking, offering home mortgage loans and banking services.

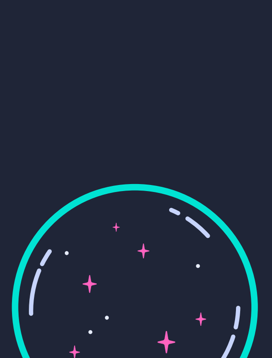
More Sophisticated Technology

1990s

Cloud • Analytics • Decisioning • Business Process Management • Behavior Analytics
Companies start focusing more on processes – compared to functions and procedures – to maximize productivity, looking at chains of events and modelling cross-functional activities.

1995

In the U.S., the Federal National Mortgage Association (known as Fannie Mae) and Freddie Mac recommended FICO scores for evaluating mortgage loans.

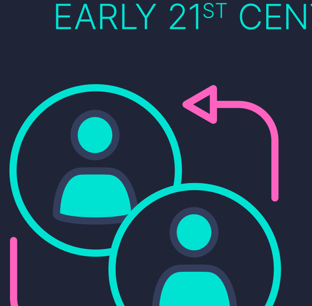


1997

Predictive Model Markup Language (PMML) provides a standard language for predictive models. Predictive analytics develops as a risk mitigation tool.

EARLY 21ST CENTURY

Marketplace Lending • Peer-to-Peer



2005

Zopa begins offering peer-to-peer loans in the UK. Since 2005 Zopa has lent over £1.45 billion to UK consumers and identifies the top three loan reasons as car, home improvements and paying off credit cards.

2006

Prosper kicked off the modern peer-to-peer lending industry in the U.S., followed by Lending Club and other lending platforms soon after.

2007-2008

Financial Crisis
From January 2008 to April 2011, the FDIC closed 356 banks that failed to manage the risks building up in their commercial and residential mortgage exposures.

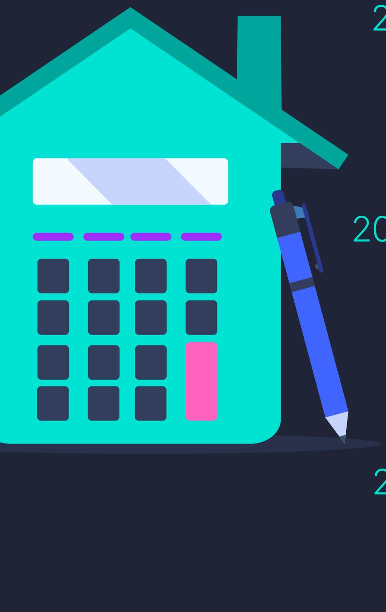
The Digital Age and Beyond

2007

The first-generation iPhone was released. Mobile banking, shopping and payments later gain popularity with the dominance of smart phones.

2010

LendingTree survey reveals 21% of U.S. homeowners shopped online first for mortgage rates.

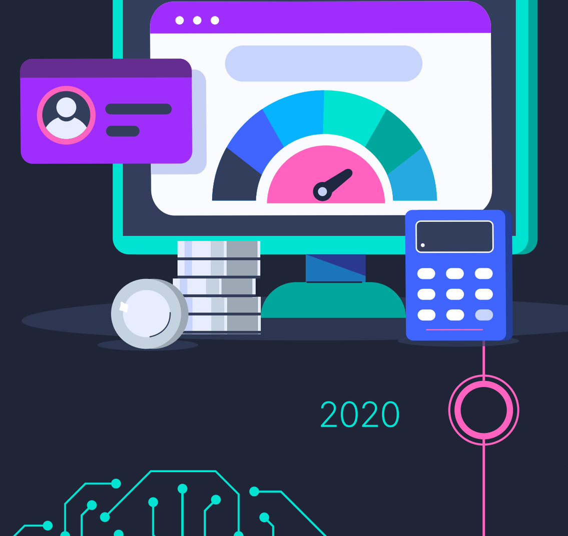


2012+

Early Buy Now, Pay Later companies emerge, including Affirm in 2012 and Afterpay in 2014. Klarna expands to the U.S. in 2015 after ten years operating in Europe.

2015

Lenders compete to meet customer expectations of digital services. In 2015, BBVA saw an increase in consumer loans through digital channels with mobile users up 45%.

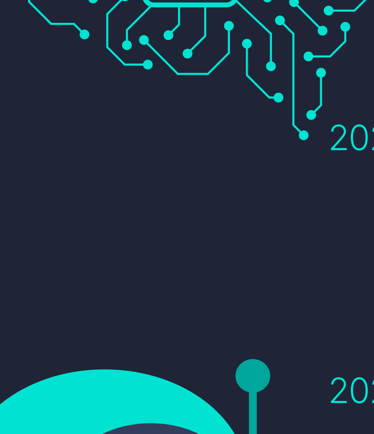


2016: The industry is rocked as Lending Club reveals a violation of the company's business practice and the resignation of its CEO. Commentators call into question the future of the industry.

2020

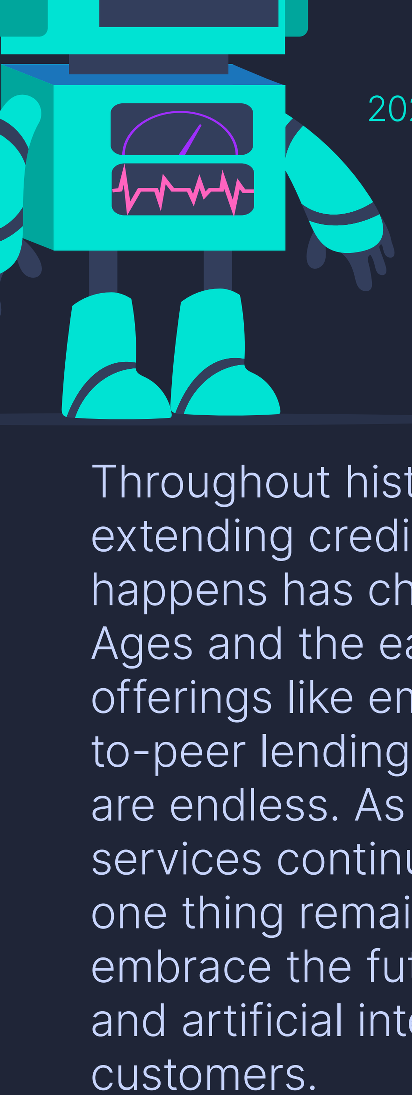
By 2020, about 32% of banks are already using AI technologies including predictive analytics to enable a competitive advantage.

The Consumer Financial Protection Bureau issued rules that facilitate the use of alternative data in lending decisions.



2022

69% of financial decision-makers globally intend to invest in AI-enabled credit decisioning, and more than 50% plan to invest in digital wallets, financial inclusion, and alternative data.



2023

Key trends in banking and landing in 2023 and beyond include mobile chatbots, financial super apps, embedded financing, cashless banking and hyper-personalization.

2026

By 2026, financial services embedded into e-commerce and other software platforms will exceed $7 trillion (in the U.S.), with payments and lending being the largest 'embedded' services.

Throughout history, the basic premise around lending and extending credit has remained the same – but the way it happens has changed dramatically. From lending in the Middle Ages and the early days of layaway to the advent of new offerings like embedded finance, Buy Now, Pay Later, and peer-to-peer lending, the possibilities around what lenders can offer are endless. As technology continues to advance and financial services continue to innovate to meet evolving customer needs, one thing remains clear – financial services providers that embrace the future of predictive analytics, open banking, APIs, and artificial intelligence will benefit immensely. As will their customers.

For more information on how to advance your lending technology, check out

Provenir's AI-Powered Decisioning Platform

References: http://www.thecalculatorsite.com/articles/finance/history-of-loans.php, http://gettingmoneywise.com/2013/01/history-of-money-lending-2.html, http://www.jewishhistory.org/the-rothschilds/, http://www.forbes.com/sites/valleyvoices /2016/03/10/the-short-history-and-long-future-of-the-online-lending-industry/#2d8bd8e84874, https://en.wikipedia.org/wiki/FICO, http://www.forbes.com/sites/scott-beyer/2016/01/15/the-future-of-mortgage-lending-could-be-online/#39b640ef4bea, http://www.fhlb-of.com/ofweb_userWeb/pageBuilder/mission--history-29, https://www.rothschildarchive.org/contact/faqs/rothschild_and_gold, https://www.dinersclubus.com/home/about/dinersclub/story, http://www.creditcards.com/credit-card-news/credit-cards-history-1264.php, http://priceonomics.com/how-credit-cards-tax-america/, https://usa.visa.com/about-visa/our_business/history-of-visa.html, http://www.theukcardsassociation.org.uk/history_of_cards/index.asp, http://www.myfico.com/CreditEducation/FICO-Score-Versions.aspx, http://www.fico.com/en/about-us, https://www.directlendingsolutions.com/history_of_lending.htm, http://philadelphiaencyclopedia.org/archive/savings-societies/, https://www.firstib.com/first-internet-bank-launches-re al-time-internet-banking-services-nationwide/, http://www.zopa.com/about#press, https://www.prosper.com/plp/about/, http://realtormag.realtor.org/news-and-commentary/feature/article/1999/12/milestones-residential-real-estate-1900-1999, https://www.lendingclub.com/public/press-room.action, http://news.bbc.co.uk/1/hi/business/7521250.stm, https://www.aag.com/news/history-reverse-mortgage, https://www.finextra.com/news/fullstory.aspx?newsitemid=28421&utm_medium=NewsFlash&utm_source=2016-2-, https://www.lendingtree.com/press-release/consumers-comparison-shop-for-everything-except-their-mortgage, https://en.wikipedia.org/wiki/Business_process_modeling, http://www.predictive-analytics.info/2012/01/pmml-41-is-here-mature-standard-for.html, http://www.predictiveanalyt, csworld.com/patimes/mitigating-risk-with-predictive-modeling-061715/5548/, http://www.genpact.com/docs/resource-/credit-analytics-in-commercial-banking---improved-compliance-and-decisions-making OF US HOMEOWNERS SHOPPED ONLINE FIRST FOR MORTGAGE RATES 21% In the first five months of 2015 Quicken Loans lent out $24.3 billion. 'BANCA' US congress created the Federal Home Loan Bank system to support residential mortgage lending. 2016 @

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