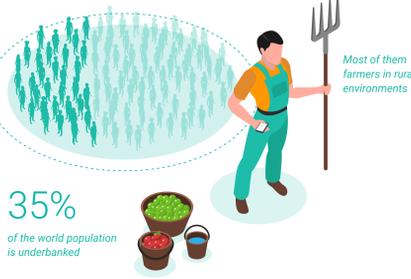


Understanding Digital Credit Scoring in 5 Minutes



Traditional credit scoring is designed to predict the risk of lending money to customers. It is performed by large for-profit organizations such as FICO in the USA or Equifax in the UK. They calculate a score based on a person's payment history, debt burden, credit requests, types of credit used and the length of the credit history.

But for a number of people worldwide, that data is either non-existent or hard to access. This is where digital credit scoring can be leveraged by fintechs, lending companies and financial institutions to gain an idea of who exactly they're lending money to, even with limited data.



2.7 billion people are still underbanked

These are people without access to mainstream financial services and products offered by traditional retail banks. This means no access to credit cards or loans, and a reliance on cash rather than other payment methods.



But there is growing demand for micro-financing

And yet, these underbanked could benefit the most from micro-financing, an industry growing at an annual rate of 20-30% since 2008. The market is expected to be worth \$650M by 2025.

A global opportunity

Micro-loans are increasingly popular in a number of developing countries. India tops the list with 50.9M current borrowers, representing a loan portfolio of \$17.1 Billion. Bangladesh is second, with 25.6M borrowers who were loaned \$7.8Billion.

Top 10 borrowers of micro loans



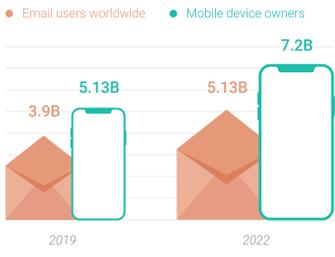
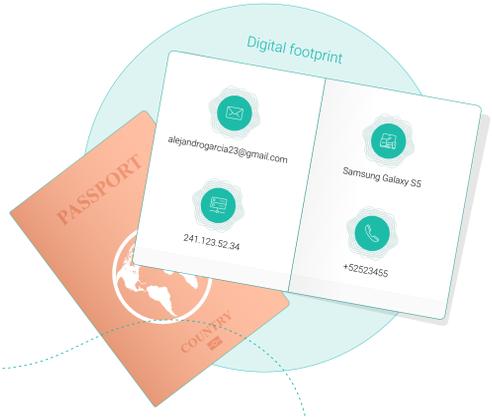
Why credit history is missing

In developing countries, the financial infrastructure simply isn't there. The underbanked do not have adequate identification to apply for services, or simply cannot afford account and credit card fees. A declining trust in banking institutions worldwide is also at play. [63% of millennials in developing countries shy away from using credit cards.](#)

[1 Billion people worldwide have no personal identification documents](#)

Underwriting with alternative data

This is where credit scoring has to go digital. While financial information can be unavailable, there is no shortage of digital data, found all over our digital footprint. It can be extracted from phone numbers, email addresses, IP addresses, and devices used to connect to the web.



Leveraging the digital footprint

The number of email users and mobile devices such as smartphones, tablets and other tools connected to IoT (Internet of Things) continues to rise. This gives organizations a growing number of additional data points to analyze for digital credit scoring.

IP address	Device	Email address	Phone number
<p>You can calculate how risky an IP address based on a number of parameters, such as:</p> <ul style="list-style-type: none"> Origin country and ISP: local, mobile Using VPN: yes Found on blacklists: not found Connection type: residential 	<p>Fingerprinting the device for its build, operating system and installed plugins can help scoring too:</p> <ul style="list-style-type: none"> History: never used before Using virtual machine: yes Browser type: Google Chrome Browser mode: incognito 	<p>A single email address can be a treasure trove of associated data such as:</p> <ul style="list-style-type: none"> SMTP check: valid Address type: disposable Domain info: high risk Social lookup: not connected to social media 	<p>Likewise, data from a phone number can be enriched to get a clearer picture of its user:</p> <ul style="list-style-type: none"> Validity: confirmed Origin country: risky Carrier type: mobile Messenger use: linked to WhatsApp, Telegram

Connecting the data dots

The more data is used, the more precise digital credit scoring becomes. But analyzing huge sets can be slow, and create friction for users. This is why AI tools such as machine learning can automate the score calculations at scale. They can then be confirmed or denied by human analysts.

Combining machine learning and human intelligence to approve loans

