Special Report

How AI Is Reshaping Lending

2020 is the year AI credit scoring hits its stride.

Here's a preview.

Artificial intelligence began influencing banking services a few years ago, occupying key roles in identity verification, fraud detection, and customer service automation. Now, AI and machine learning (ML) have reached the core of the industry: consumer lending. By searching out infinite patterns in credit data, ML models paint a more nuanced picture of default risk. Using ML strengthens lender yields, finds good new borrowers and broadens credit access for consumers, especially in near-prime or subprime segments.

A full-scale transition to algorithmic underwriting is underway but faces some questions and hurdles along the path to broader adoption. This report identifies near-term AI-related themes and trends to watch in 2020 and beyond.

1. Explainability Takes the Spotlight

ML-powered credit scoring must remain transparent to earn the trust of consumers and regulators. AI models sort out fraud from reality; what matters to consumers is getting it right.

When it comes to applying AI to lending, however, explainability is key. Lenders must be able to explain exactly how their models make credit decisions and why. Without that transparency, they run the risk of biased outcomes, off-base results and running afoul of regulators without knowing exactly what went wrong.

The best explainability solutions test for accuracy and fairness by illustrating the individual impact of every variable in a model, generating the necessary regulatory documentation along the way. Zest AI's explainability package comes with managed services baked in, including expert help from a dedicated team with underwriting expertise and a track record of models that stand up to regulatory scrutiny.

Truly explainable AI and transparent machine learning will provide a crucial edge for lenders that have it and a roadblock for those that don't.

2. More and Better Data

AI has the capacity to ingest massive quantities of data. While traditional linear-regression models use about two dozen variables, machine learning models incorporate hundreds.

With AI, underwriters can call on credit-adjacent data — like bank balance information or utility accounts history — to supplement borrower profiles. For the bigger picture, macroeconomic trend data can help navigate broad shifts and manage larger loan portfolios.

AI and ML can also extract the most critical data from larger, messier data sets more efficiently than traditional analytical software. Better yet, the new models help lenders squeeze more insights from the existing data they're already paying for.

ML models will improve underwriting performance by analyzing more data intelligently and efficiently.

3. Data Costs Will Rise

While greater analytical processing power is a big opportunity for lenders who embrace it, the demand for data to feed ML models could drive up costs for the industry.

In a more crowded marketplace, lenders must examine what data points are most relevant for their services and borrower demographics. They should also look for ways to extract more value from existing data and contracts.

Lenders must be vigilant about rising data costs.

4. Carving Out Op-Ex Savings

While ML models promise to expand underwriters' loan portfolios and increase revenue, they can also uncover ways to cut operating expenses.

- Recurring costs. A single ML model can often do the work of multiple regression models, saving cross-team time and resources.
- Compliance. Automated risk documentation reduces the time and cost to gather, verify and document model governance.
- Data budgeting. Modern explainability tools pinpoint the data with the best predictive power, allowing lenders to budget more efficiently.
- Fairness testing. Lenders can save more resources by automating the arduous process of testing models for bias. AI delivers these results in minutes.

AI and ML will create operating efficiencies and expand lenders' profit margins.

5. Limited-Credit Borrowers Get a Fairer Chance

Roughly 20% of U.S. households lack a mainstream credit product in the past 12 months and likely do not have a credit score. That number is slightly higher (25%) for people aged 15 to 24. As Generation Z starts making bigger financial decisions, and millennials enter the prime years for homeownership, many may be misrepresented by the traditional credit-scoring system.

For these borrowers, who often have little in the way of credit history, ML is able to expand available data and make stronger predictions. That capability can have a significant impact on business results. For example, Zest AI increased one lender's loan-approval rate among 19- to 35-year-olds by 25% without raising risk.

AI will help lenders serve more borrowers without taking on more risk.

6. Credit Unions Embrace AI

Credit unions pride themselves on member service with a personal touch. While these players may not have big data ecosystems and serious IT resources, they do have loyal members with long histories. Those rich customer profiles provide a wealth of data to feed powerful new ML models that can speed up a credit union's decisioning speed. The ability to make faster and more trustworthy decisions based on custom models is a big reason more credit unions are embracing ML.

By the end of 2020, according to a Fannie Mae survey of mortgage lenders, 71% of credit unions plan to investigate, test or fully implement AI/ML solutions, up from just 40% in 2018. The prospect of fast, automated credit scoring will leave credit unions freer to focus on personalized service.

AI works for lenders of all sizes.

7. Embedded Financial Services Build a Middle Ground

As the relentless pace of innovation pressures lenders to choose between building or buying the solutions they need, fintech startups are developing embedded financial services as a safer middle ground. These agile solutions draw on advanced software, cloud infrastructure and the internet of things to help financial companies improve performance in payments, lending and insurance.

Fintechs offer more flexibility for lenders investing in new technology.

Conclusion

While challenges persist, lenders of all sizes see the future of the industry in AI. With smarter tools and stronger data, lenders can extend credit further without raising risk, serving more consumers and businesses and addressing regulatory inefficiencies. The AI-driven lending revolution is just beginning to unfold.

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