

# SMART LENDING OR RISKY ALGORITHMS?

AI in Credit Decisions — Promise, Pitfalls & the Path Forward

**Bibhas Mondal**

School of Business, University of Southern Queensland

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# CREDIT AT THE CROSSROADS



- Global digital lending market to exceed **\$30 trillion by 2030**.
- AI models now drive over **60% of new credit decisions** worldwide.
- India among the fastest adopters — driven by FinTech's, alternative data, and mobile-first consumers.
- Yet: Algorithmic bias, data misuse, and opaque models are rising red flags.

**The lending ecosystem is undergoing a profound shift.**

**While AI expands access and efficiency, it also challenges long-standing principles of fairness and explainability in finance. The tension between inclusion and risk sits at the core of this transformation.**

# HOW AI TRANSFORMS CREDIT DECISIONING



- **Traditional Scoring:** Relied on repayment history, income proof, and credit bureaus.
- **AI Models:** Incorporate 500+ features — including spending behavior, device data, location signals, and social activity.
- **Machine Learning Techniques:**
  - Gradient boosting, random forests for credit risk modeling.
  - Deep learning for behavioral segmentation.
  - Reinforcement learning for adaptive credit limits.

# SMART LENDING: THE AI PROMISE



- **Speed:** Instant credit scoring and approvals.
- **Scalability:** Ability to underwrite millions of micro-loans simultaneously.
- **Inclusion:** Access for thin-file, gig economy, and informal sector borrowers.
- **Precision:** Advanced risk analytics reduce NPAs through behavioral insights.

AI allows lenders to move from rigid, rule-based systems to adaptive, data-rich decision engines.

For emerging markets like India, this means potentially democratizing access to credit — reaching those traditionally left out by legacy systems like CIBIL-based scoring.

# THE OTHER SIDE: RISKY ALGORITHMS



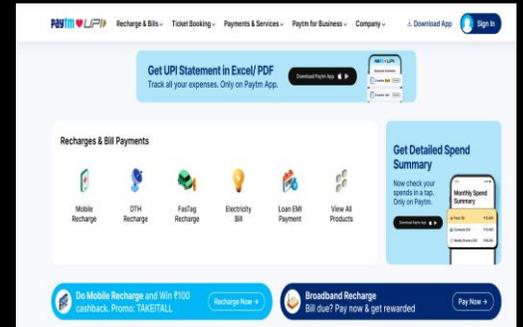
- **Bias & Discrimination:** Historical and behavioral data may encode social or gender bias.
- **Opacity:** “Black-box” AI models make it hard to explain decisions.
- **Data Privacy:** Over-reliance on personal or social data raises ethical concerns.
- **Regulatory Gaps:** AI innovation outpacing policy oversight.

When algorithms go unchecked, they can amplify exclusion instead of correcting it.

Transparency and governance become crucial to maintain trust in digital finance.

# AI IN ACTION — PAYTM'S CREDIT ECOSYSTEM

- Paytm represents India's large-scale use of AI for credit inclusion.
- It transformed wallet data into predictive insights — enabling access for millions who had no formal credit history.
- **AI Applications:**
  - Behavioral & transactional data for credit scoring.
  - Dynamic credit limits based on real-time spending patterns.
  - Collaboration with banks/NBFCs for underwriting, Paytm provides analytics layer.
- However, the same models risk replicating hidden biases — hence the need for strong data ethics and consent management.



# CASHe'S SOCIAL LOAN QUOTIENT (SLQ)



- CASHe showcases the experimental frontier of AI in credit.
- It uses psychometric and behavioral data to extend credit where traditional lenders wouldn't.
- **AI Applications:**
  - Uses psychometric, social, and behavioral data for risk profiling.
  - ML engine processes 500+ data points to approve loans within minutes.
  - Behavioral learning adjusts credit limits dynamically.
- But it also tests ethical boundaries — using personal and social metadata that users may not realize influence their financial fate.

# INSIGHTS: PAYTM VS CASHe



Dimension	Paytm	CASHe
Data Used	Transactional & behavioral	Psychometric & social
Target Users	Mass consumer & merchant base	Young, gig & salaried professionals
AI Role	Dynamic credit limits & inclusion	Personalized psychometric scoring
Strength	Scale, speed, inclusion	Innovation, personalization
Risk	Privacy, bias	Profiling, explainability
Regulatory Pressure	Data consent, auditability	Explainable AI, ethics compliance

Paytm and CASHe represent two ends of India's AI-lending spectrum — one at scale, one at the edge of innovation. Both show how AI can open new markets, but also how opaque algorithms risk eroding trust if not governed carefully.

# GLOBAL LANDSCAPE & REGULATION



- **EU AI Act (2024):** Classifies credit scoring as “high-risk AI” requiring transparency & human oversight.
- **US:** Fair Lending laws extended to algorithmic decisioning (CFPB guidelines, 2024).
- **India:**
  - **RBI Digital Lending Guidelines (2025)** —transparency in loan offers, explicit data consent and localisation and strengthened grievance redressal framework.
  - **MeitY’s Draft AI Governance Framework (2025)** — focuses on explainability and algorithmic audits.

# Key Guardrails for Responsible AI in Lending

- **Explainability:** Clear rationale for each credit decision.
- **Fairness Audits:** Regular bias testing and recalibration.
- **Informed Consent:** Transparent data use policies.
- **Algorithmic Accountability:** Clear ownership of model outcomes.
- **Data Minimization:** Use only what's necessary.
- **Regulatory Sandboxes:** Safe zones for experimentation.



**Responsible AI frameworks must evolve alongside fintech innovation.  
Explainable and auditable AI is not just a regulatory requirement — it's a business imperative to  
maintain credibility and consumer trust.**

# THE ROAD AHEAD: BALANCING INNOVATION & INTEGRITY



- AI is essential for scaling inclusive credit in developing economies.
- The future lies in **hybrid models** — combining human judgment with AI insight.
- **Ethical AI** will be a key differentiator in consumer trust and brand reputation.
- Collaboration between **Fintechs, regulators, and data scientists** will define sustainable growth.

We must move from “AI-first” to “Responsible AI-first.”

Inclusion without integrity is short-lived.

The challenge is not whether we use AI in lending — but how wisely, transparently, and fairly we do it.

**THANK YOU**

