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M-RCBG releases new working paper on Revolution in Data: How new technologies are upending borrowing

Study Assesses Social and Industry Impact of Big Data Tools in Consumer Borrowing; Makes Case for Increased Transparency and Oversight

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CAMBRIDGE, MA, February 8, 2019 – Credit card companies are using a new array of vast datasets to precisely profile credit applicants, provide more targeted customer service, and combat fraud, according to a study released today by a senior fellow and a researcher at the Mossavar-Rahmani Center for Business and Government (M-RCBG) at Harvard 's John F. Kennedy School of Government. The study analyzes the new techniques and information sources that carry the promise of better credit products for more people, but also increasing customer intrusion and credit portfolio risk.

The Financial Services industry invested approximately $9 Billion USD in Big Data in 2018, and that level of investment is projected to grow at 17% per year through 2020. This industry focus on new technology has sparked optimism among business operators and regulators alike, who recognize the promise of better techniques to reduce fraud and profitably expand access to credit. In the study, Marshall Lux, Research Fellow at M-RCBG, and Guillaume Delepine, a Research Assistant at the center, conducted interviews with credit card company leaders, Big Data service providers, and regulators, to document the state of the field and make recommendations for upcoming regulatory challenges.

Lux and Delepine identify three primary mechanisms that Big Data is transforming consumer lending:

- Risk management techniques incorporate large-scale monitoring to flag both transaction and application fraud incidents for human investigators.
- Servicing teams can make use of Big Data-driven insights to provide more tailored customer experiences and more customized offers.
- Product Development teams can use more predictive credit decision-making tools to design offerings for low credit score and thin file segments.

The authors stress that Big Data has tremendous socially positive potential. However, they point out several key risks that might warrant regulatory intervention in the future:

- The growing network of data collectors and providers is collecting more and more sources of consumer information that may be perceived as invasive.

- Algorithms have been shown to discriminate against protected groups such as women and ethnic minorities in the past; vigilance for discriminatory outputs can prevent such situations from arising in consumer lending.
- Big Data has evolved substantially since the 2008 recession; while industry leaders craft their algorithms with downturns in mind, many techniques have yet to go through a full economic cycle.

In order to ensure that the public benefits from banks and lending platforms' innovation, Lux and Delepine argue that banks must not stifle innovation, but rather promote healthy product development in the direction of increased transparency. The researchers recommend that government agencies invest in technical talent, collaborate extensively with the private sector, and use European and Singaporean governance models as a role model for crafting future policy. In particular, the researchers suggest policymakers pursue the following policy avenues:

- Continue to apply existing regulatory philosophy that defines and prohibits Unfair or Deceptive Acts or Practices through laws such as the Equal Credit Opportunity Act and Fair Credit Reporting Act.
- Release rules emphasizing transparency so that lenders and lending platforms can police themselves, even in the absence of an intensive government monitoring program.
- Maintain a structured approach to industry collaboration and knowledge transfer.

The full paper is available for download at
https://www.hks.harvard.edu/centers/mrcbg/publications/awp/awp107

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