

AI for Lending

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Introduction



Munwar Shariff

Chief Technology Officer,
Cappius / Anblicks

As CTO, Munwar is responsible for defining and implementing emerging technology based services, products and solutions.

He is the Co-Founder of Cappius Technologies, Inc, a San Jose based solutions and product company built on his passion of AI, ML and Data Science over 3 years before the merger with Anblicks.

He is author of 5 Technology books sold on Amazon world-wide.



Agenda



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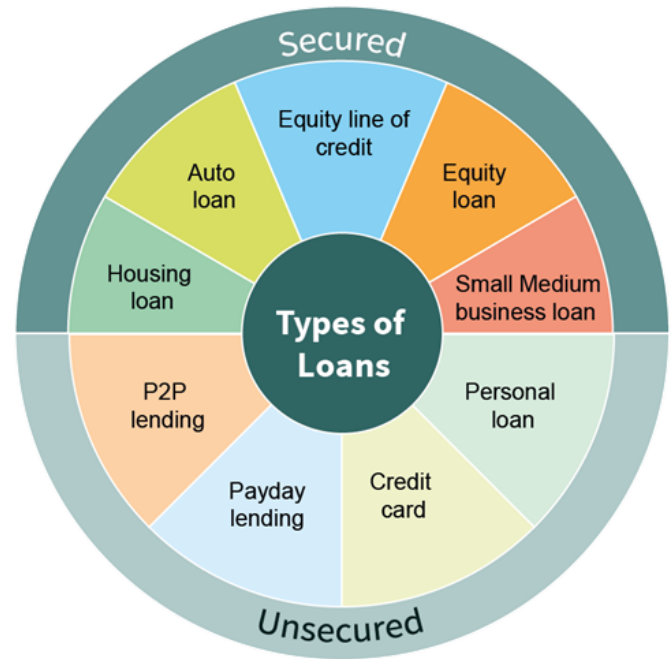
About Anblicks
Making AI Work



Consumer Lending



- Is a category of **financing** centered on **individual** and **household consumers**
 - Secured Loans
 - Financing backed by collateral
 - Home, cars and boats etc.
 - Unsecured Loans
 - Financing doesn't require collateral
 - Personal loans and credit cards
- Other Products offered by financial institutes
 - Home/car/personal insurance
 - Various investment options



Market Size



\$42.3
Trillion

Consumer lending balances
worldwide as of 2016



\$1.38
Trillion

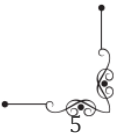
Estimated value of Consumer
loans in the USA, as of July 2017

A Federal Reserve Bank Report



132%

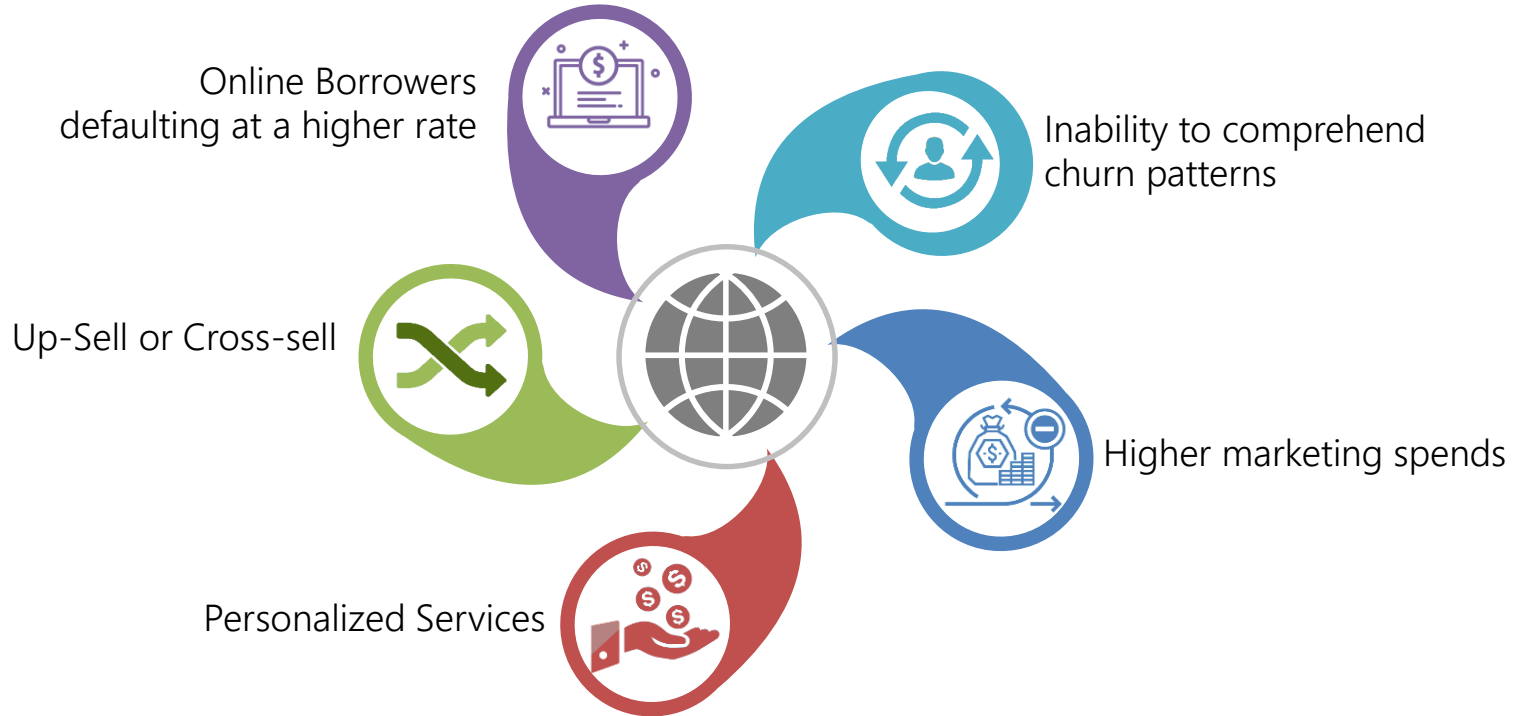
An increase in personal loan
balances from 2012



Industry Challenges



Every lender is going online for its applications for new loans, underwriting, risk assessment, marketing and receiving payments.



Why AI?



Assess the credibility of the borrower

Loan application scoring can reduce the time to analyze the associated risk



Retain valuable customers

Predict the propensity of a consumer to churn or move away using refinancing.



Increase new revenue opportunities

Target customers; Upsell and cross sell products based on customer personas



Consumer Assessment:

1. Loan application Scoring / Credit Scoring
2. Predicting the probability to “default” a particular loan in next 12-18 months

Consumer Retention:

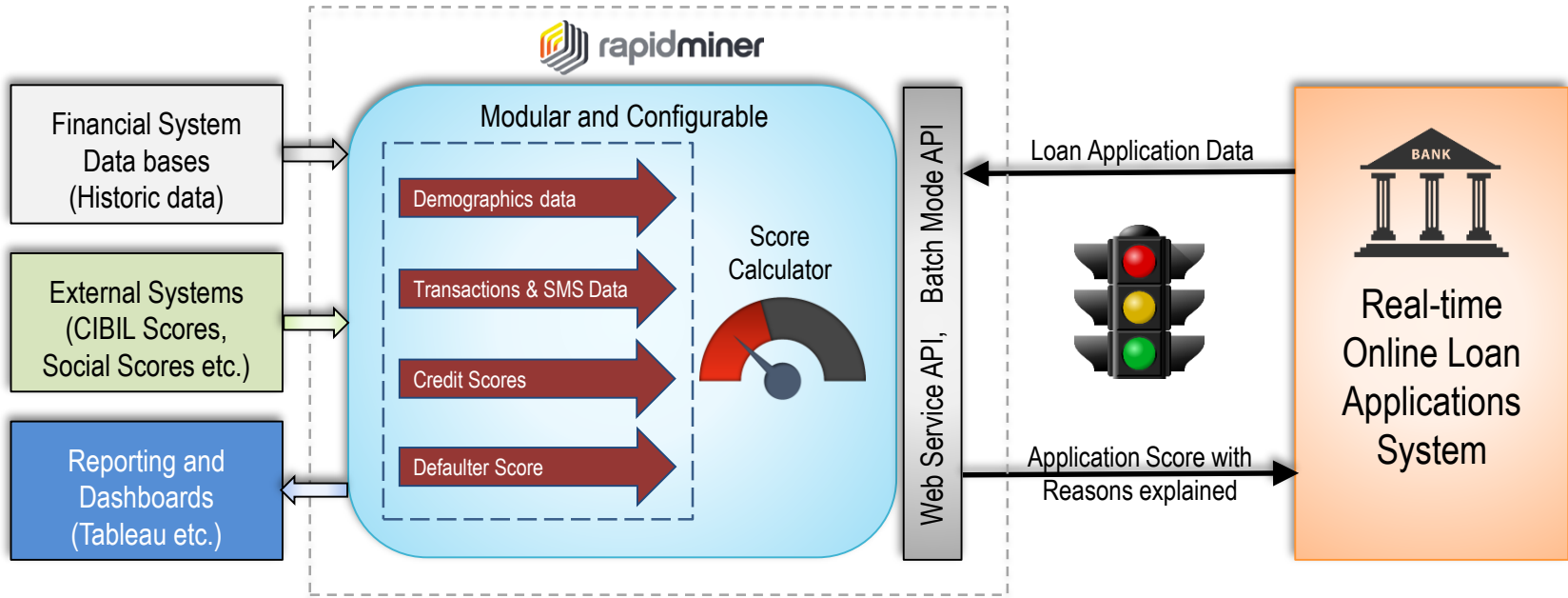
3. Predict Churn – Customers who would move away using refinancing etc.
4. Personalized services and discounts

New Revenues/Business:

5. Personalized Loan offers (using customer personas)
6. Recommendations for up-sell and cross-sell



Implementation Workflow



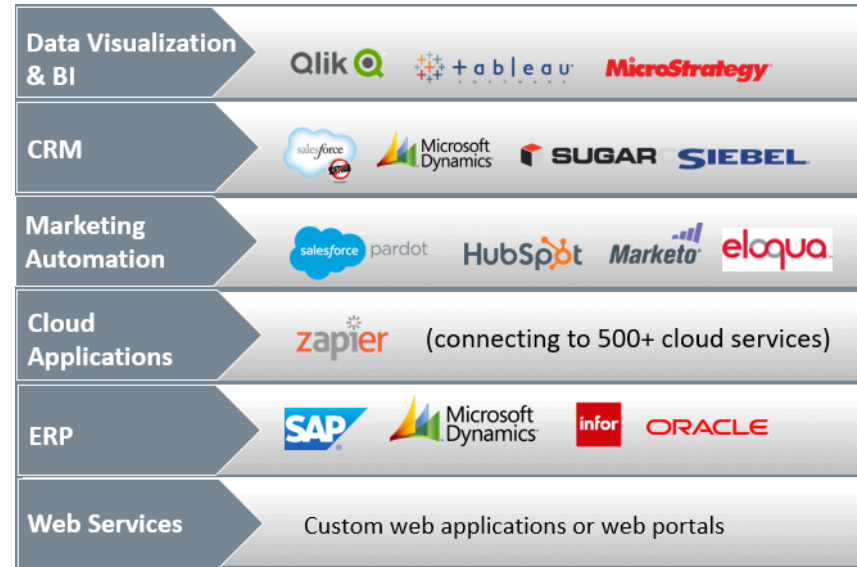
Implementation - Integrations



Input Data



Output Results





Demonstration of Use Cases



Loan Application Scoring
Churn Prediction
Defaulter Prediction
Recommendations
Customer Personas



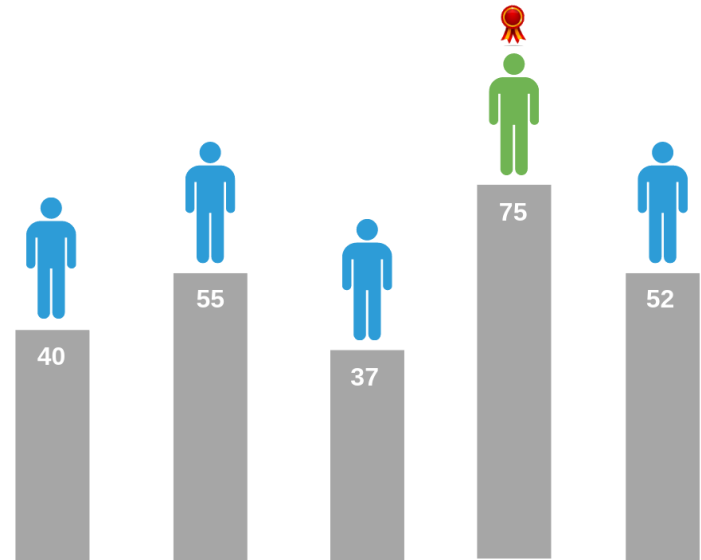
Application Scoring



Application scoring quantifies the risks, associated with loan applications, by evaluating the social, demographic, financial, and other data collected at the time of the application.

Advantages

- Automate **borrower evaluation**
- Reduce your **operational costs**
- **Identify risk** upfront
- Decrease the **time to make a loan decision**
- Adjust your **accept/reject criteria**



Churn Prediction – Retain your customers



- Customer churn prediction tells us **how likely a customer is to discontinue** an ongoing contract
- Provides insights to **resolve underlying churn issues and plan remedial strategies**
- Cost of acquiring new customers are several times more expensive than retaining existing ones.

Factors influencing churn

- Refinancing
- Voluntary prepayment



Defaulter Prediction



Loan - Default can occur immediately after a missed payment or months later, as the exact timeline will depend on your loan terms and state or federal laws.

Defaults aren't an especially rare occurrence

- **11.5%** of student loans defaulted within two years in 2013
- **2.5%** credit cards wound up in default during the third quarter of 2017 - Federal Reserve Bank of St. Louis





Machine learning is not a differentiator any more.

Key differentiators are:

1. Accuracy of Prediction
2. Relevance
3. Scalability



Recommendations – Increase Sales



- Recommendations can **increase product sales** in an already existing customer base.
 - **Upsell and cross-sell** (using segmentation and association analysis)
- Recommendation of products based on DTI and clean history of customer.
- If a customer is applying for Car Loan – Recommend Car insurance ?



Customer Personas - Segmentation



- Dividing the target market or customers on the basis of some significant features which could help a company **sell more products with less marketing expenses**
- Objective Segmentation - Identify
 - **Who would respond** to a particular offer
 - **Who will default** on their credit obligation for a loan or credit card
- Non Objective Segmentation
 - Personalized marketing actions
 - Lifestyle and regional affluence





About Anblicks



Founded in **2004**
400+ Global Talent
300+ satisfied
customers



Expertise in building
and deploying **BI, Big
Data & Data Science**
Solutions



Accelerated **Time to
Market** using proven
solution frameworks
products



Consultative approach
that ensures **tangible
outcomes**



RapidMiner + Anblicks can help you with



Implementing scalable AI solutions for Lending



Assess the credibility of the borrower

Loan application scoring can reduce the time to analyze the associated risk



Retain valuable customers

Predict the propensity of a consumer to churn or move away using refinancing.



Increase new revenue opportunities

Target customers; Upsell and cross sell products based on customer personas



THANK YOU

Please do visit our booth for
detailed demonstrations



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