# AI-Powered Lending: Empowering Members in Times of Financial Need

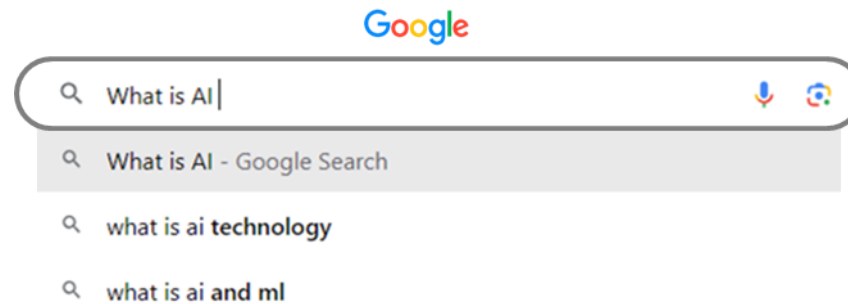**More Approvals. Lower Risk. Instant Decisions**

Eric Steinhoff

EVP, Client Impact

25 years of experience in credit risk analytics and lending strategies; led risk functions at ScaleFactor, ApplePie Capital, Tricolor, Capital One and Standard Bank

SCIENAPTIC

# AI is
# every here



Google

What is AI

What is AI - Google Search

what is ai **technology**

what is ai **and ml**

**ChatGPT**
Human-Like
Conversations

**alexa**
AI
Assistant

**amazon**
Predictive
Recommendations

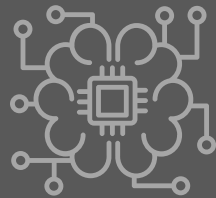**TESLA**
Self-Driving
Cars

# AI in financial services is not a new concept



Sir Thomas Bland, Deputy Chairman of Barclays bank, unveils the first Barclays cash machine on June 27, 1967
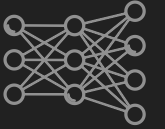
# Big leaps in AI in the last 10 years
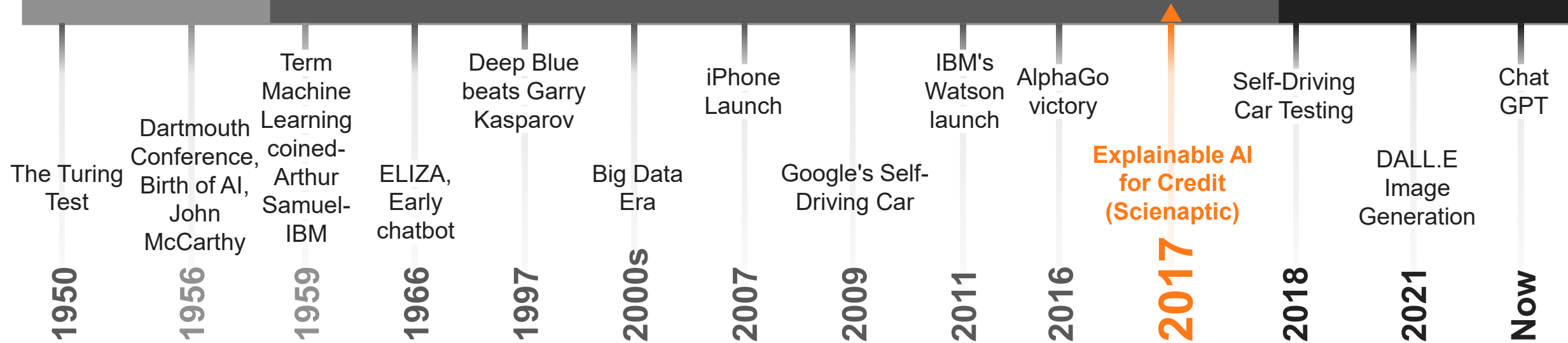
Artificial Intelligence

## Machine Learning
Ability to learn without being explicitly programmed

## Deep Learning
Learning based on Deep Neural Network

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| The Turing Test | Dartmouth Conference, Birth of AI, John McCarthy | Term Machine Learning coined- Arthur Samuel- IBM | ELIZA, Early chatbot | Deep Blue beats Garry Kasparov | Big Data Era | iPhone Launch | Google's Self-Driving Car | IBM's Watson launch | AlphaGo victory | Explainable AI for Credit (Scienaptic) | Self-Driving Car Testing / DALL.E Image Generation | Chat GPT |
| **1950** | **1956** | **1959** | **1966** | **1997** | **2000s** | **2007** | **2009** | **2011** | **2016** | **2017** | **2018 / 2021** | **Now** |

# WEF predicts 4th Industrial Revolution shall be Powered by AI

| Industrial Revolution | 1 | 2 | 3 | 4 |
|---|---|---|---|---|

Powered by
**Steam Engine**
*(Britain)*

Drove mass movement of goods & people & opened up access to goods & places previously inaccessible

Powered by
**Electricity**
*(US)*

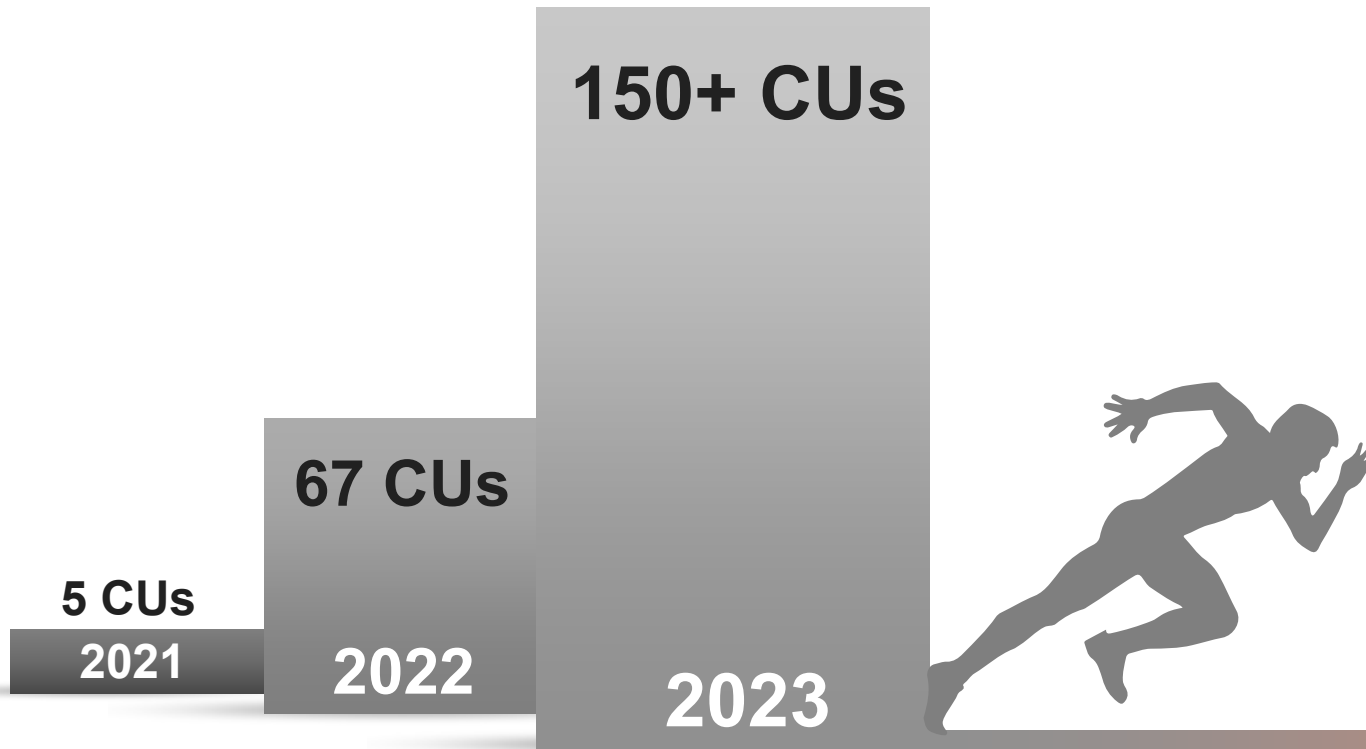Converted farming economies to industrial economies

Powered by
**Internet**
*(US)*

Converted industrial economies to knowledge & digital powers

**Powered by AI**

Enabling machines possess human-like conscious intelligence but to the power of "**infinity**"
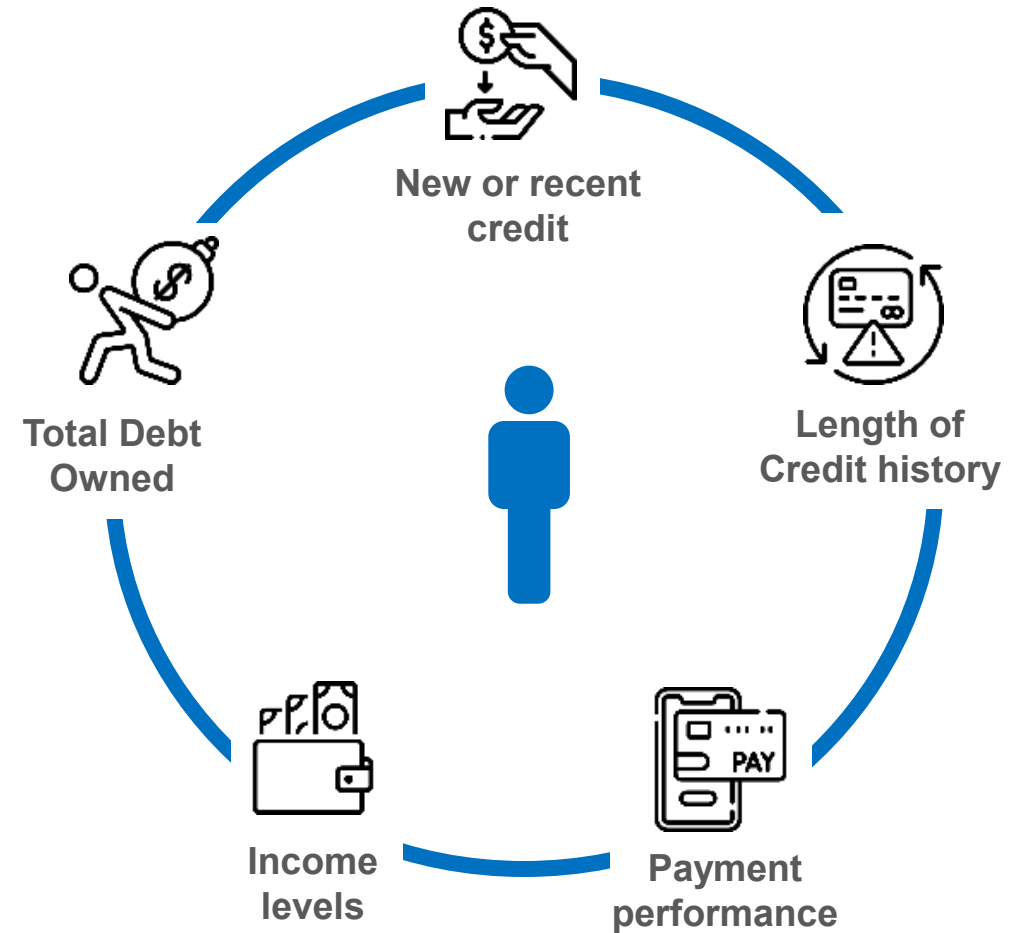
# There's a **race** for adoption

**90%** of all lending will be AI

**5 CUs**
2021

**67 CUs**
2022

**150+ CUs**
2023

**2030**

**Source:** Scienaptic CXO Survey, Scienaptic CU Industry Research

SCIEN**a**PTIC | 8

Typically, **humans** look at **10-20 variables** to evaluate credit risk

New or recent credit

Length of Credit history

Payment performance

Income levels

Total Debt Owned

# AI can evaluate 1000s of signals in seconds
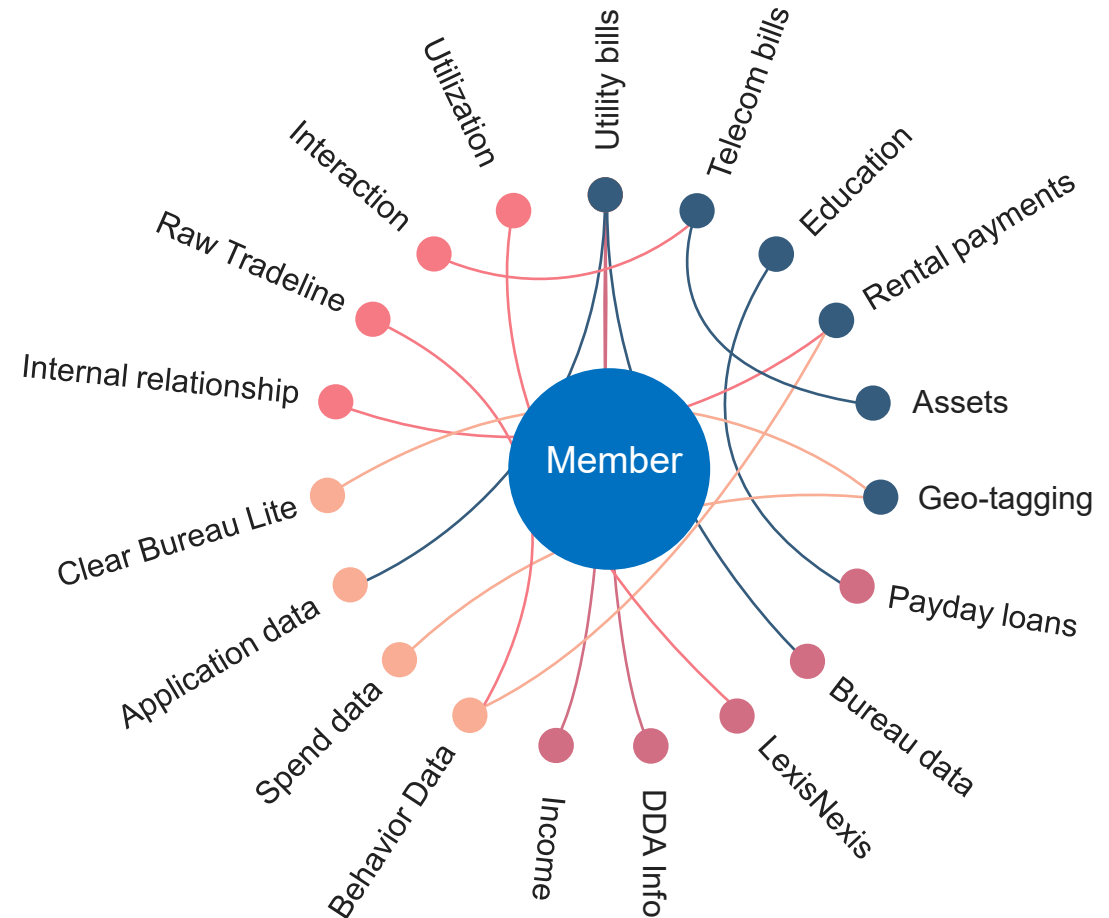
# and deliver instant, smarter and fair decisions

SEGMENT

A

B

C

D

E

F
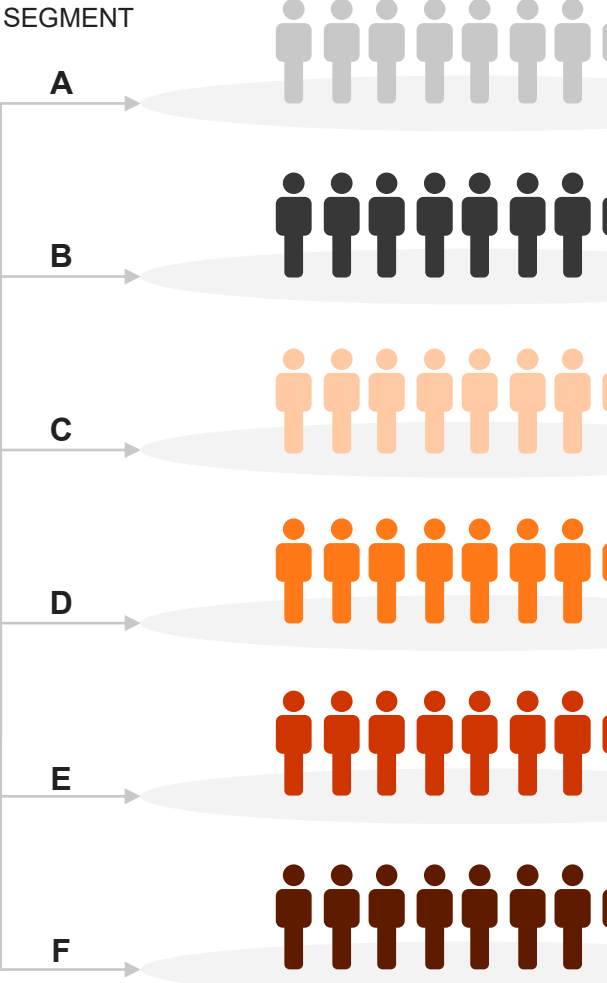
# 230,000+

members approved

*Driving Financial Inclusion*

**Source:** Scienaptic approvals for credit unions in past 24 months

# Take-up rates take off when decisions are instant…

## 80-90%
up from
## <20%

take-up rate
when decisions are
instantaneous

take-up rate
for decisions that are not
instant

Scienaptic's own research with existing clients

# Moving the needle on fair, equitable lending for protected classes

Hispanics **24%** more approvals

Age 62+ **17%** more approvals

Blacks **27%** more approvals

Asians **26%** more approvals

# Applications of AI extend beyond originations

**Needs**
Anticipate needs - make the **right offer to the right member at the right time**

**Behaviors**
**Abnormal behavior (fraud),** purchase patterns, parts of member journey that are digital, preferred platforms
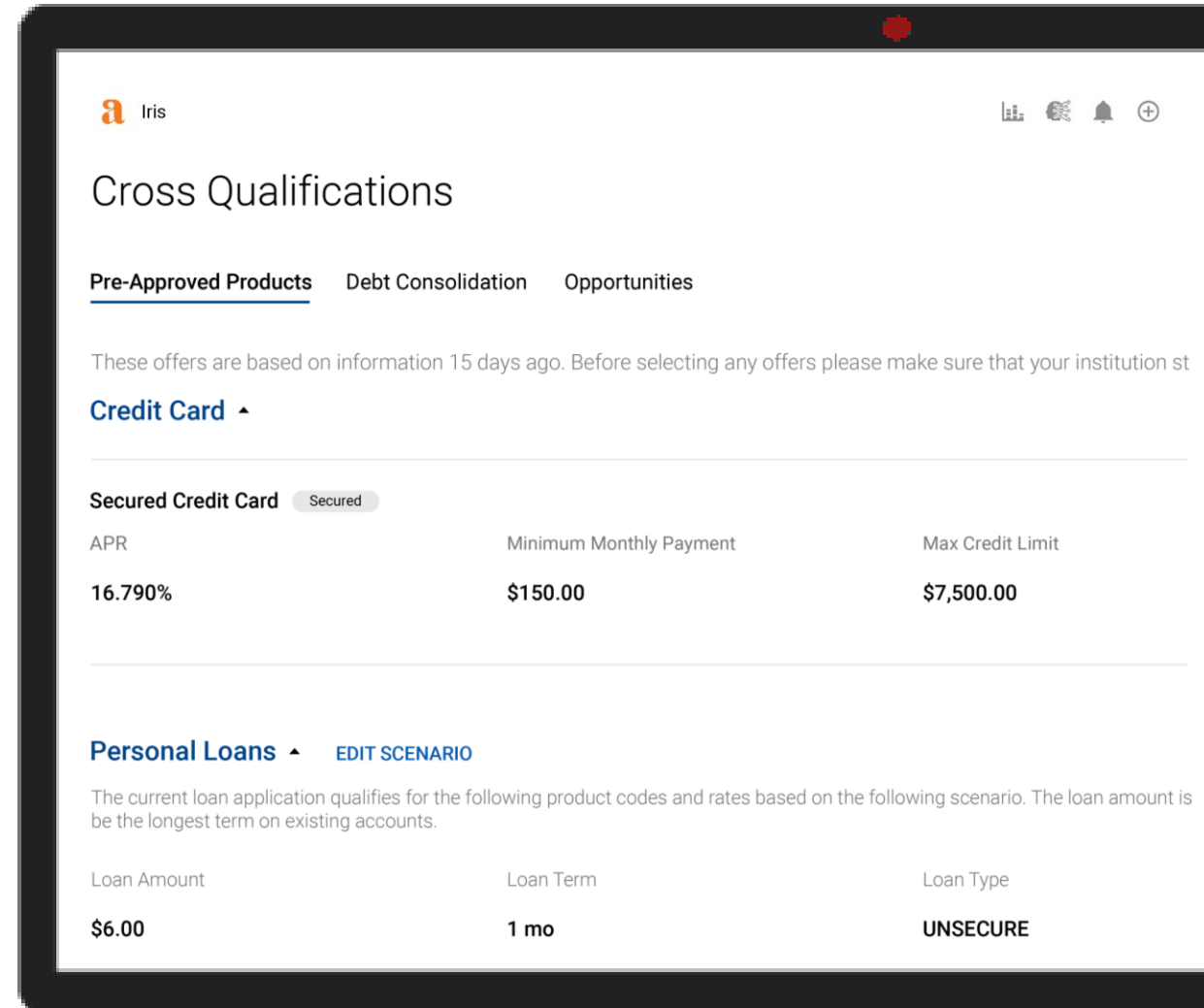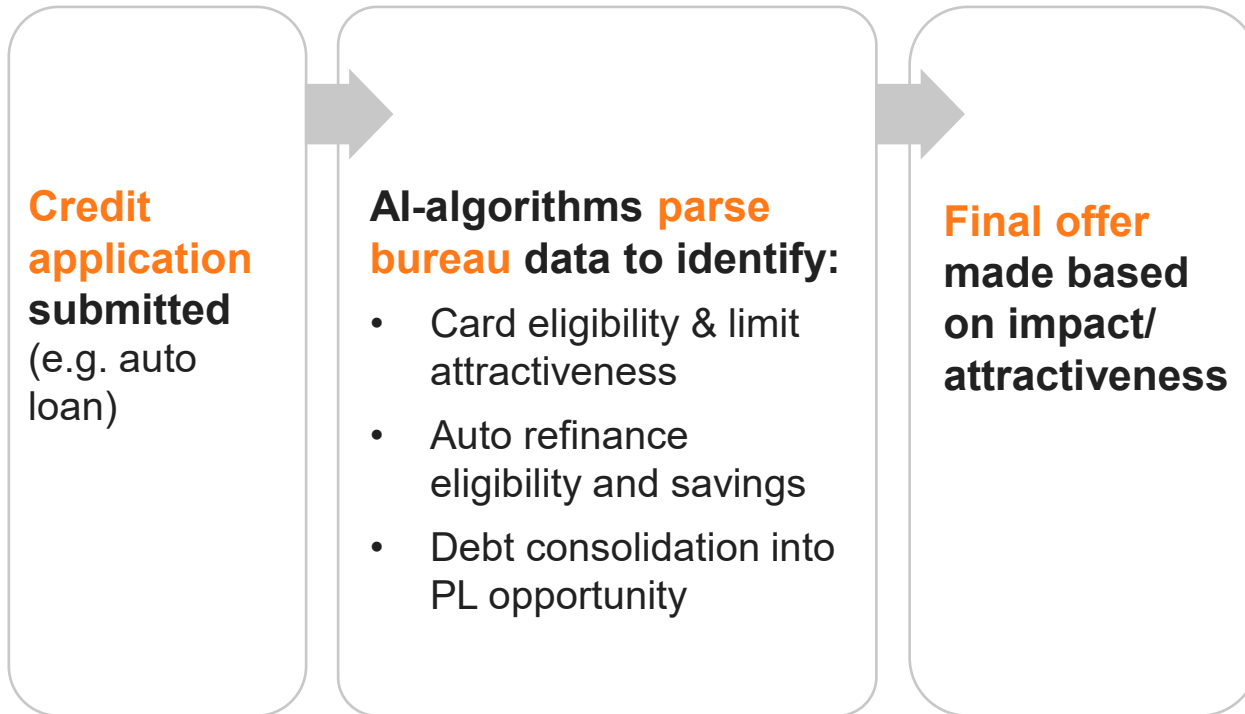
**Context**
Life stage, upcoming events, sources of income, occupation, etc

**Preferences**
Preferred channels, best time to contact, etc

# The right offer to the right member at the right time

**Credit application** **submitted** (e.g. auto loan)

**AI-algorithms parse bureau data to identify:**

- Card eligibility & limit attractiveness
- Auto refinance eligibility and savings
- Debt consolidation into PL opportunity

**Final offer made based on impact/attractiveness**



**a** Iris

## Cross Qualifications

**Pre-Approved Products**    Debt Consolidation    Opportunities

These offers are based on information 15 days ago. Before selecting any offers please make sure that your institution st

**Credit Card** ▲

**Secured Credit Card**    Secured

| APR | Minimum Monthly Payment | Max Credit Limit |
|-----|-------------------------|------------------|
| 16.790% | $150.00 | $7,500.00 |

**Personal Loans** ▲    EDIT SCENARIO

The current loan application qualifies for the following product codes and rates based on the following scenario. The loan amount is be the longest term on existing accounts.

| Loan Amount | Loan Term | Loan Type |
|-------------|-----------|-----------|
| $6.00 | 1 mo | UNSECURE |

# Catch fraudulent apps without impacting real members

## Application Received

- App received in LOS
- Call made to Scienaptic platform
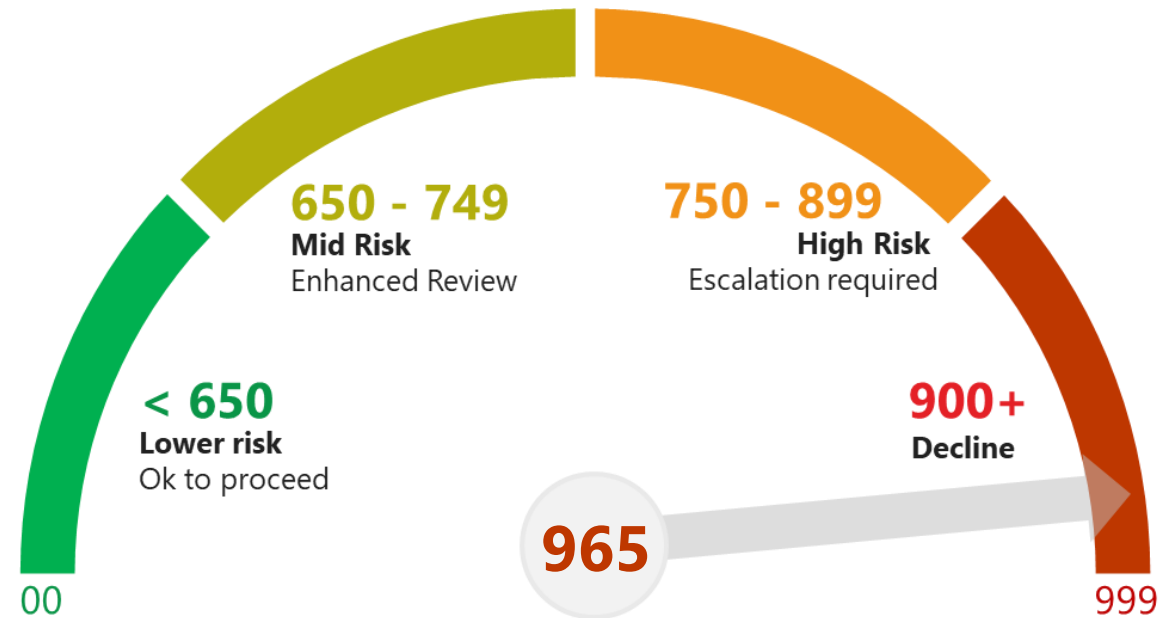
## Key Attributes Identified & Application Scored

**R008:** SSN Tied to clump of SSNs empirically used for fraud

**R016:** Application cluster activity in SentiLink consortium data

**R028:** Unusual geographic activity associated with phone number

**R010:** Depth of consumer's history



Iris

**Scores Returned to Inform Treatment**
Higher score = higher risk

**650 - 749**
Mid Risk
Enhanced Review

**750 - 899**
High Risk
Escalation required

**< 650**
Lower risk
Ok to proceed

**900+**
Decline

00

965

999

# SCIENAPTIC

## Eric Steinhoff

eric@scienaptic.com

+1 214 679 2953

www.scienaptic.ai    |    contactus@scienaptic.com