3rd Seminar on Data Science and Analytics

Bangalore, India
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Augmented Intelligence & It's Potential for Actuaries

Sandeep Patil FSA,CERA
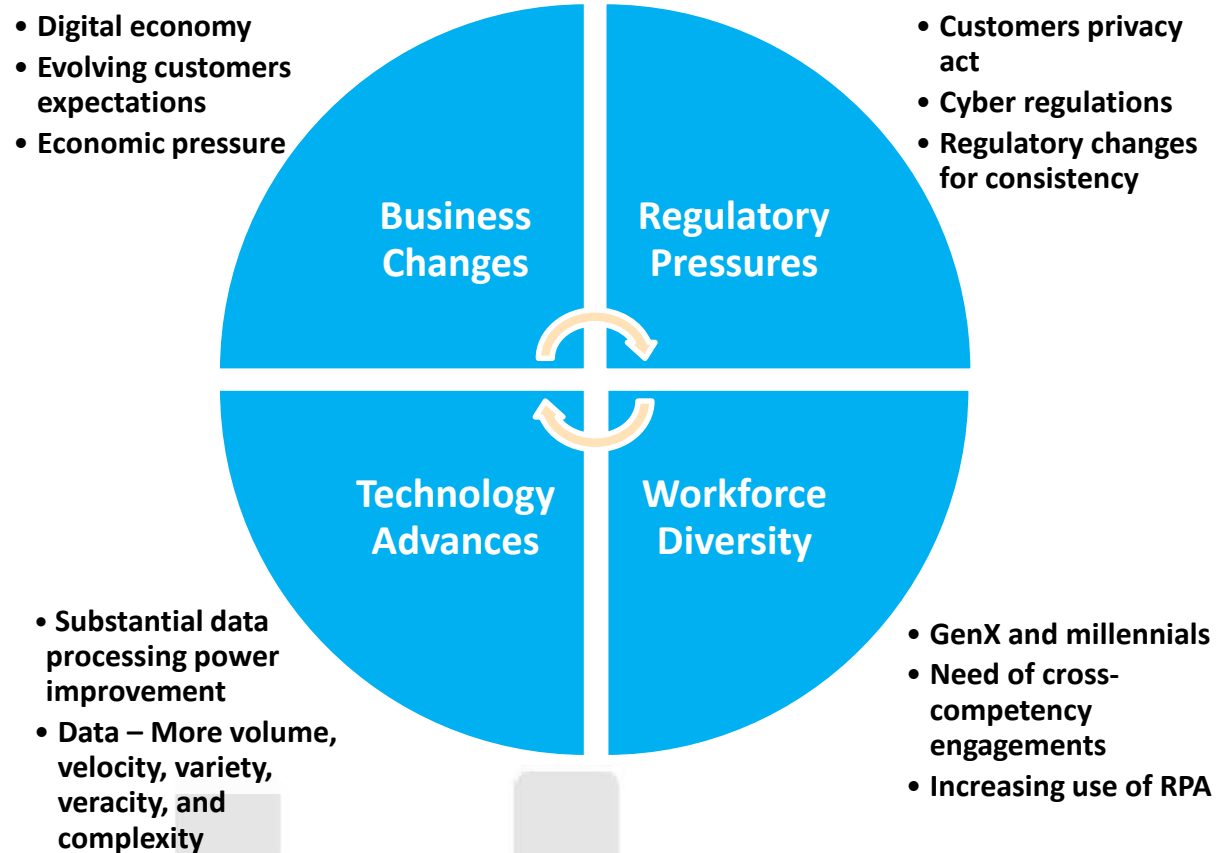Director and Lead Actuary
Spraoi.ai

Dr. V Prasanna Shrinivas, PhD
VP, Cognitive Machine Learning
AntWorks

Agenda

- Disruptions as drivers
- AI for actuarial modernization
- Advantage Actuarial
- Where to go?
- AI use cases

Disruptions Galore

- Digital economy
- Evolving customers expectations
- Economic pressure

Business Changes

Regulatory Pressures

- Customers privacy act
- Cyber regulations
- Regulatory changes for consistency

Technology Advances

Workforce Diversity

- Substantial data processing power improvement
- Data – More volume, velocity, variety, veracity, and complexity

- GenX and millennials
- Need of cross-competency engagements
- Increasing use of RPA

AI for Actuarial Modernization

Institute of Actuaries of India

Exponential Increase in Data & it's complexity

Data from policy admin systems ➕

Expanded data
- From digital processes (acquisition, UW, claims settlement, etc.)
- Structured & unstructured data
- Data in motion, IoT, RPA

Paradigmatic shift in modelling

Traditional Actuarial & Data analytics techniques ➕

Advanced modelling
- Advanced techniques (Machine learning, Deep learning, Adaptive learning)
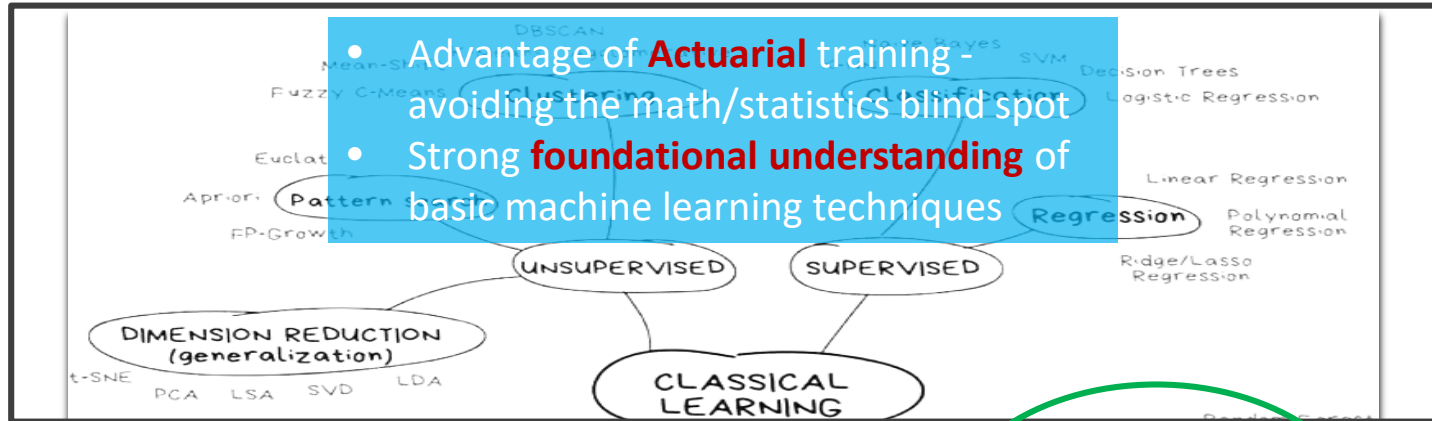- Faster computations

Substantially improved decision making

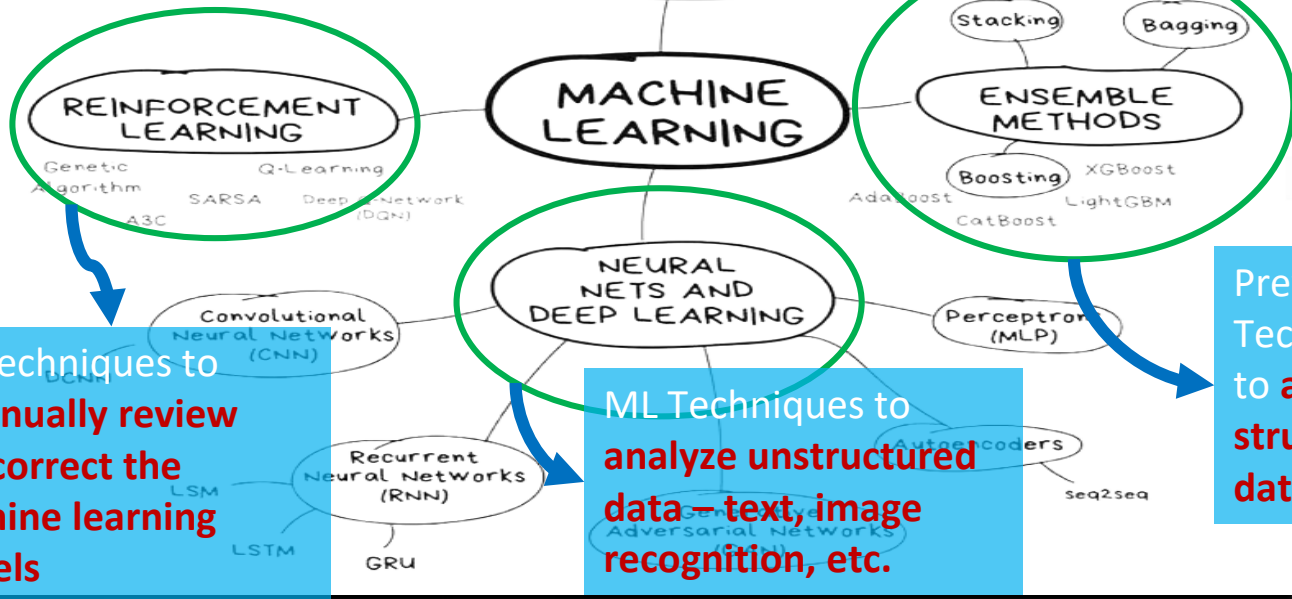Periodic insights from data analysis ➕

Continuous Insights
- Ongoing visualizations & insights (automated)
- Feedback loop to continually improve insights

Advantage Actuarial

- Advantage of **Actuarial** training - avoiding the math/statistics blind spot
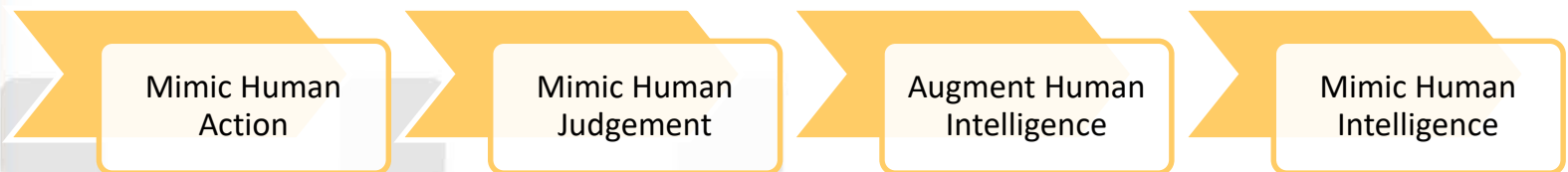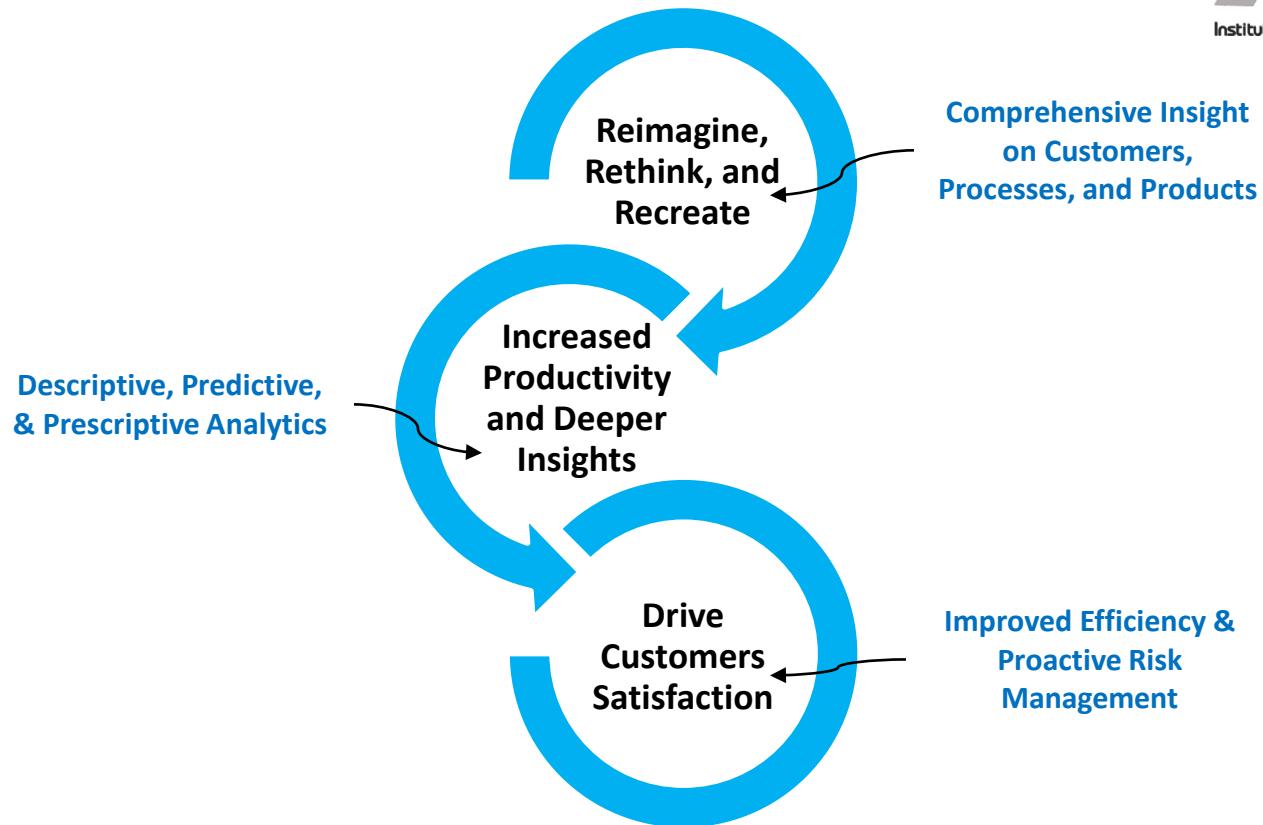- Strong **foundational understanding** of basic machine learning techniques

ML Techniques to **continually review and correct the machine learning models**

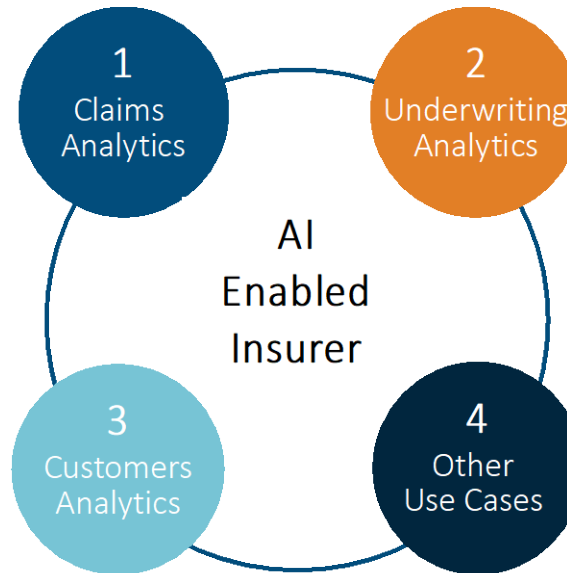ML Techniques to **analyze unstructured data – text, image recognition, etc.**

Prevailing ML Techniques to **analyze structured data**

Source of image: LinkedIn

Quo Vadis Actuaries

AI Use cases

- Fraud detection
- Segmentation
- Auto-adjudication
- Settlement amount

1 Claims Analytics

2 Underwriting Analytics

- Policy segmentation
- Auto-approval
- Early fraud detection

AI Enabled Insurer

3 Customers Analytics

4 Other Use Cases

- Lead generation
- Customer retention
- Promotions
- Next best offer / Cross-selling

- Products design
- Distributors selection
- Distributors retention
- Employee retention

Questions?