



Let's Solve



A Larsen & Toubro  
Group Company



Perspective

New Age Assets for

**Fighting Insurance Fraud**

by **Pradeep Nimje**

# The blame game on claims

At the outset, here is a fact for you. Insurance claims frauds globally are estimated to be approximately USD 3.4 trillion dollars annually – with USD 40 billion in the US alone. The auto and workers compensation business segments are major contributors. These whopping amounts includes everything – from overstated injuries to exaggerated damage, staged accidents, and manipulated medical bills. Insurance frauds can be classified in two major forms:

## Hard frauds (criminal)

These occur when an accident, injury, or theft is staged to obtain money from insurance companies

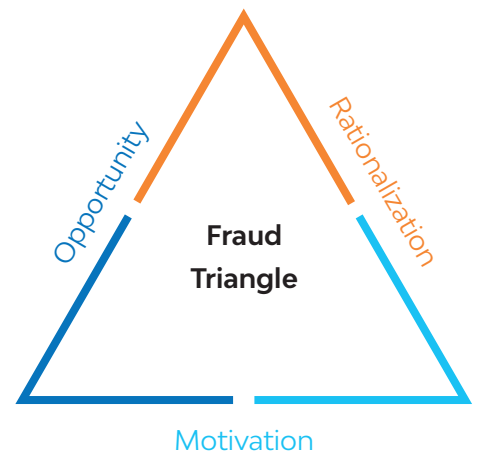
## Soft frauds

These are opportunistic frauds, which include policy holders exaggerating their legitimate claims.

## So, what triggers a fraud?

A triangle of wrongful thoughts, actions and deeds.

The fraud triangle is a framework designed for auditors or insurers to evaluate their vulnerability to a fraud. It gives a broad structure of the various triggers for claimants to commit a fraud. It offers sharp insights into the behavioral patterns and causes of fraud, thus helping insurers protect themselves. The three critical components of the fraud triangle are:



### ✔ Motivation

This is the first stage where people feel the pressure or incentive to commit a fraud. This includes financial needs such as debt problems or shortfall in revenue. The other triggers could be addiction to gambling, drugs or leading a high-end lifestyle due to peer pressure.

### ✔ Opportunity

Once the motivation sets in, the fraudster looks for an opportunity to execute their plans. For this, two things are necessary. One, the fraudster should have the power or access to information in an organization to manipulate facts and figures. Two, the organization should have lack of checks or internal and external controls.

### ✔ Rationalization

This is the stage at which the fraudsters justify the fraud due to their internal mindset, moral compass or external circumstances surrounding them.

# The Old School Methods of Detecting and Protecting Frauds

Before the age of digital transformation and Big Data, here is how insurers were detecting and dealing with frauds:

## ✔ Historical data analysis

It is a rule-based approach, which evaluates, analyzes and verifies fraudulent past claims data. Based on this analysis, a fraudster profile is developed and embedded into a model, which can screen and detect future claims and suspicious cases.

## ✔ Manual screening process

It is the most widely used technique of identifying frauds by employing expert agents, adjusters and SIUs (special investigation units) to detect and deal with frauds. These teams rely on their personal work experience of fraud fighting, screening huge number of suspicious claims and providing key insights about the fraudsters. The major drawbacks of this technique are errors and delay in payouts.

## ✔ Forensics

Forensics are scientific tests or specialized techniques applied by investigators to detect fraud. The tests include mechanical experiments, chemical and microbiological analysis and determination of validity of claims by symptom analysis in a worker's compensation line of business.

## ✔ Accident Reconstruction Analysis

Auto insurance fraud is a serious concern to P&C carriers. It accounts for significant number of claims to insurers and costs billions of dollars annually. Reconstruction experts offer crash analysis services by applying forensic engineering through a comprehensive testing facility and metallurgical laboratories to examine the cause of accident. The sequence narrated by the claimant is recreated by analysts to verify and validate auto accident claims. The conventional methods of fraud detection used by insurers are becoming difficult to scale in the modern age due to massive amounts of data, multiple touchpoints and manual processes, which cause delay in claim settlements and add grievances to genuine claimants.

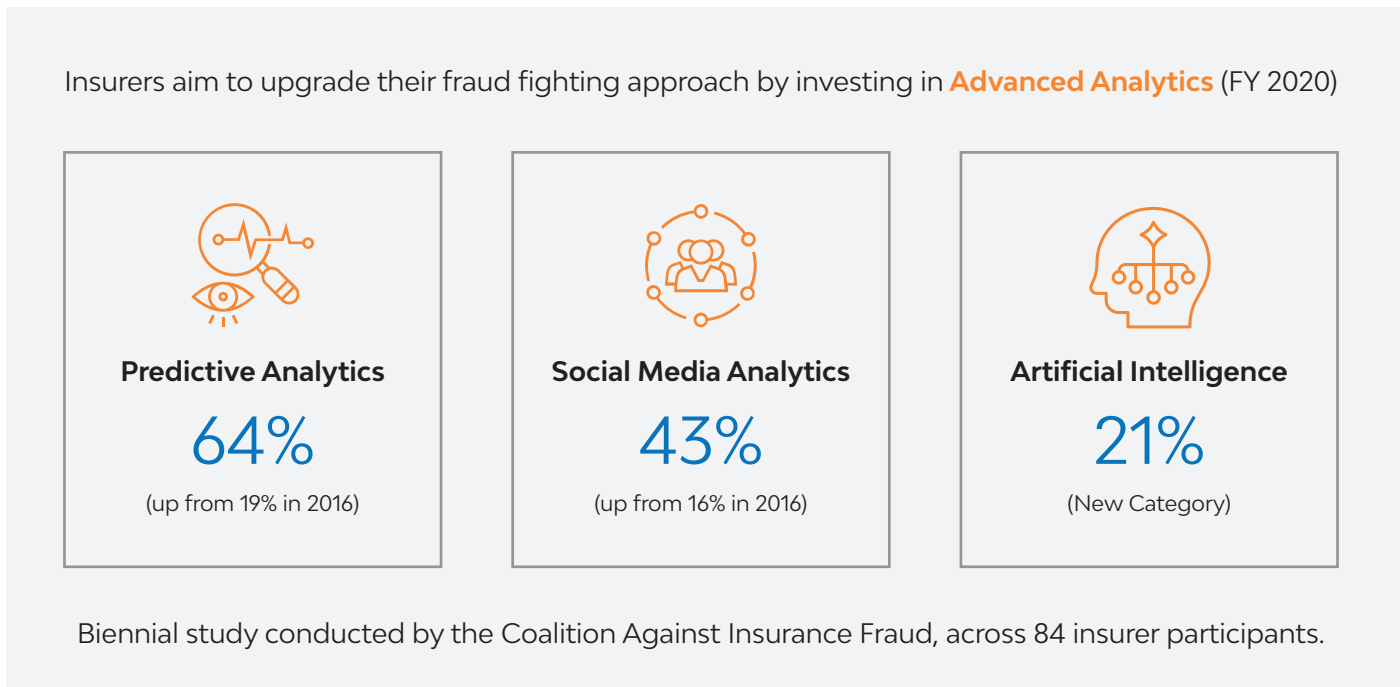
## New-age risks need digital assurance

Fighting fraud with conventional methods will not make the cut in the digital age. Today, fraudsters are arming themselves with hacking tools and identity theft techniques. Also, they are colluding with multi-party stakeholders to extort inflated amounts from insurers. Therefore, insurance companies must remain one step ahead of them by leveraging disruptive technologies offered by insuretechs and upgrade their investigation mechanisms.

Today's state-of-the-art advanced data analytics offer predictive capabilities that can deliver accurate and measurable results right from the start of the claims lifecycle. As a result, the insurance industry is moving ahead with a data-driven fraud detection program. This aims to accomplish early prevention, quick detection and efficient management of fraudulent claims. Following are a few latest key entrants in major P&C carrier's fraud detection management system:

### Social media analytics

It focusses on claimant's digital footprint to recognize patterns of potential fraud. This approach includes logical rules, statistical approaches, pattern analysis and network association analysis to identify relationships that might lead to detection of fraudulent claims. 'Leadsurance' creates automated social analytics



dashboards for insurers. This tool updates in real time, and pulls relevant data from selected social platforms' APIs and produces accurate reporting results.dashboards for insurers.

### Geo-spatial analysis

Geo-spatial data modelling aims to detect and prevent fraud by capturing geographical details of the fraud transaction. For example, an automobile insurer employs statistical analysis to identify repair shops that inflate estimates. The extracted data includes the claimants' addresses as well as the location of repair shops, which is geo-coded, and mapped with the average claim estimate for a particular kind of defect. Using this geo-coded data together with relevant information, the analyst maps locations where repair estimates are higher than the average cost of body parts. 'HERE' solutions from 'NAVmart' offer statistical analysis on the claims side to investigate suspicious behavior and identify fraudulent activity using GIS insurance analysis.

## Layered voice analysis

This technique uses a unique mathematical and statistical process that analyzes different voice parameters at the FNOL stage to identify patterns and detect anomalies. The technology can sense whether someone is nervous, anxious, uncertain, or excited. It can logically extract other subtleties that the human senses might miss. 'Nemesysco' offers voice analytics for risk-assessment calculations, which aids insurers in fraud detection, prevention, and investigation.

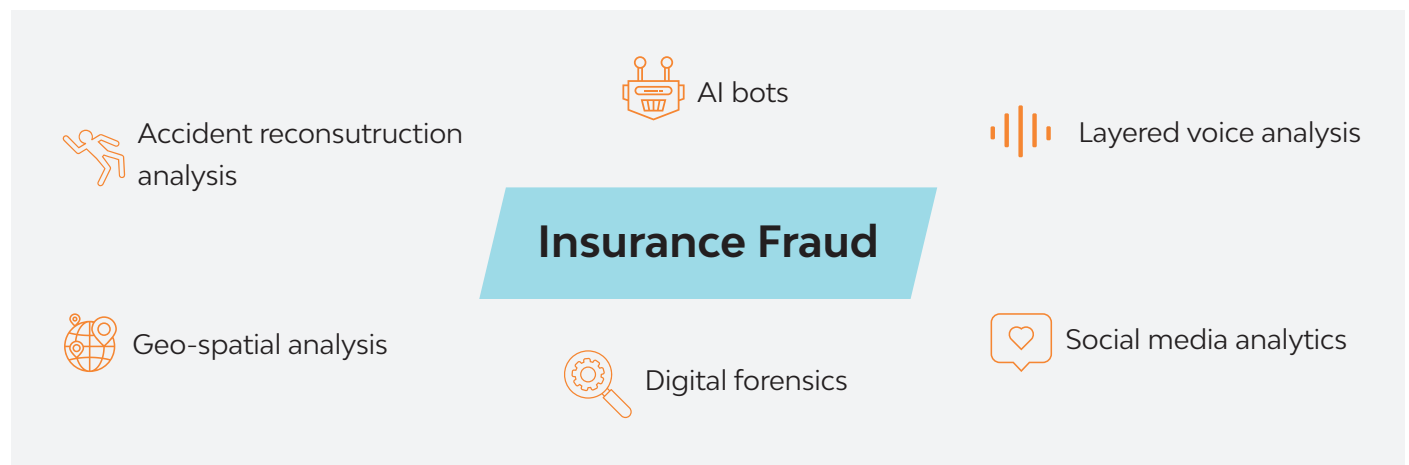
## Anti-fraud AI Bots

Artificial Intelligence includes the use of text analytics and sentiment analysis to scan big data for fraud detection. A popular insurtech, 'Shift Technology' is reinventing fraud detection with AI. 'FORCE', a SaaS-based AI bot, captures claims and policy data in any format with contextual guidance to power investigations. It also sends real-time alerts for suspicious cases to fraud handlers.

## Digital policy for fighting fraud

Top insurers in collaboration with popular insurtechs have developed a notable array of analytics solutions, which today are spreading throughout the global insurance industry. Through the Internet of Things (IoT), millions of data points are being collected on a daily basis from devices ranging from fitness trackers to pacemakers, to home security, video surveillance, leakage sensors, climate control systems, and even some safety appliances. The key lies in employing this incredible amount of data running into terabytes, to predictive techniques such as statistical modeling and machine learning algorithms, which provide pro-active insights into potential fraud events.

Now, digital forensic techniques are being applied to uncover evidence from electronic devices that can prove the sequence of events to verify claims. This is extremely crucial in establishing arson, validity of motor accidents, wrongful death etc. Accident reconstructions are also being performed digitally, saving a lot of time and cost.



# Insurers must show maturity to deal with fraud

Fraudsters will continue to target the carriers which rely on traditional procedures to detect fraud. Insurers must focus on implementing effective fraud prevention strategies and embrace disruptive technologies prevailing in the sector. They need to adopt a proactive approach that comprises employing advanced business rules, relationship analytics, real-time identity checks and predictive models. Companies leveraging both internal and external data analytics have a better scope in assessing fraud risks across their customer life cycle and process value chains.

## References

1. <https://www.iii.org/publications/insurance-handbook/regulatory-and-financial-environment/background-on-insurance-fraud>
2. <https://www.insurancenexus.com/fraud/role-data-and-analytics-insurance-fraud-detection>
3. <https://www.propertycasualty360.com/2017/12/14/how-insurers-can-identify-fraudulent-claims-before-they-are-paid/>
4. <https://www.the-digital-insurer.com/wp-content/uploads/2013/12/53-insurance-fraud-detection.pdf>
5. <https://www.genpact.com/insight/point-of-view/a-smarter-and-tougher-claims-fraud-program-the-key-to-a-stronger-bottom-line-and-sharper-competitive-edge>
6. <https://leadsurance.com/social-media-analytics-insurance-industry/>
7. <https://navmart.com/insurance/>
8. <http://nemesysco.com/insurance-risk-assessment-fraud-detection-ra7>
9. <https://www.fbi.gov/stats-services/publications/insurance-fraud>
10. <https://www.insurancefraud.org/statistics.htm#13>

## About the Author



### Pradeep Nimje

Business Analyst, LTI

Pradeep Nimje is a Business Analyst with Insurance Consulting Practice and a member of the Claims Transformation Team at LTI. He has completed 'AINS' from 'The Institutes' and is a Fellow member of Insurance Institute of India (FIII). He has worked on Property and Casualty insurance policy administration and Reinsurance treaty migration activities.

LTI (NSE: LTI) is a global technology consulting and digital solutions company helping more than 420 clients succeed in a converging world. With operations in 32 countries, we go the extra mile for our clients and accelerate their digital transformation with LTI's Mosaic platform enabling their mobile, social, analytics, IoT and cloud journeys. Founded in 1997 as a subsidiary of Larsen & Toubro Limited, our unique heritage gives us unrivalled real-world expertise to solve the most complex challenges of enterprises across all industries. Each day, our team of more than 30,000 LTIites enable our clients to improve the effectiveness of their business and technology operations and deliver value to their customers, employees and shareholders. Find more at [www.Lntinfotech.com](http://www.Lntinfotech.com) or follow us at [@LTI\\_Global](https://twitter.com/LTI_Global)