AI and Humans: Synergies in Insurance
AI in Insurance
What Computers Are Best At

- Repetitive Tasks
- Mathematics
- Data Manipulation
- Parallel Processing
Mainstream Best Practice

- Roboadvice
- Automated underwriting
- Claims triage
- Suspicious transactions
- Next best offer, cross-sell and up-sell
Roboadvice

Objective, individualised insurance product recommendations
Automated Underwriting

Categorising Insurance Applications:

- Standard
- Sub-standard
- Reject
Claims Triage

Automatically flagging claims for immediate payment versus manual review.
Suspicious Transactions: Fraud & AML

Automatically flagging applications and claims for special review.
Next Best Offer, Cross-Sell and Up-Sell

Marketing campaigns optimised for individual customer characteristics.
Rapidly Becoming Best Practice

- Next best action
- Smart customer dashboards
- Duplicate customer records
- Disputes
Next Best Action

Engaging communication with customers and leads, individualised for both content and timing.
Smart Customer Dashboard

Know your customer:

- Churn probability
- Next best offer
- Net promoter score
- Lifetime customer value
Duplicate Customer Records

Flag customer records that may be duplicates of each other e.g. slightly different spelling or address.
Disputes

Which disputes will end up in legal action? Which ones can be solved by negotiation?
The AI-Driven Insurer

- Strategy
  - Marketing
    - Online Ad Bidding + Marketing Attribution
    - Price Competitiveness + Reverse Engineer Pricing
  - Customer Services
    - Smart Customer Dashboard
    - Churn Prediction
  - Competitors

- Logistics
  - Agents and Brokers
    - Next Best Action + Funnel Modelling
    - Lead Scoring + Robo-advice
    - Churn Prediction
  - Website / Sales
    - Banner and Content Personalization
    - Next Best Offer + Cross Sell + Up Sell
    - Sold In

- Support
  - IT
    - Security + CRM / Lifetime Customer Value + Duplicate Record Detection
  - HR
    - Attrition Modelling, Hiring and Succession
  - Legal
    - Fraud Detection + Dispute Development
  - Finance
    - Forecasting + Automated Authorizations
  - Operations
    - Automation
  - Risk Management
    - Risk Scoring + Underwriting + Suspicious Transactions + Claims Reserving

- Product / Service
  - Gives Feedback
    - Text Mining + Sentiment Analysis + Net Promoter Score
  - Helps Smart Customer Dashboard
  - Includes
    - Price Elasticity
    - Lead Scoring + Robo-advice

This diagram illustrates the integration of various business functions to enhance customer experience and operational efficiency through AI-driven solutions.
My Personal Career Journey – From Actuary to Data Scientist

**Strategy**

- Website / Sales
  - Banner and Content Personalization

- Packages
  - Price Elasticity
  - Next Best Offer + Cross Sell + Up Sell
  - Sold In

- Customer
  - Helps
  - Smart Customer Dashboard
  - Gives Feedback
    - Text Mining + Sentiment Analysis + Net Promoter Score
  - Sells
    - Lead Scoring + Roboadvice
  - Sells
    - Sales Prediction

- Competitors
  - Churn Prediction

**Logistics**

- Marketing
  - Online Ad Bidding + Marketing Attribution
  - Influences

- Customer Services
  - Helps
  - Smart Customer Dashboard

- Agents and Brokers
  - Sells
    - Lead Scoring + Roboadvice

**Support**

- IT
  - Security
    - + CRM / Lifetime Customer Value + Duplicate Record Detection

- HR
  - Attrition Modelling, Hiring and Succession

- Legal
  - Fraud Detection + Dispute Development

- Finance
  - Forecasting + Automated Authorizations

- Operations
  - Automation

- Risk Management
  - Risk Scoring + Underwriting + Claims Reserving + Suspectis Transactions

- My Personal Career Journey – From Actuary to Data Scientist
  - Price Competitiveness + Reverse Engineer Pricing
  - Price Comparisons
  - Next Best Action + Funnel Modelling
  - Browses / Calls
  - Product Recommendations
  - Buys
  - Customer Strategy
  - Logistics
  - Support
  - Risk Management
  - Actuarial tasks
My Personal Career Journey – From Actuary to Data Scientist

Strategy

Marketing
- Price Competitiveness + Reverse Engineer Pricing
- Online Ad Bidding + Marketing Attribution

Customer Services
- Helps
- Smart Customer Dashboard

Competitors
- Leaves
- Churn Prediction

Agents and Brokers
- Sells
- Lead Scoring + Roboadvice

Product / Service
- Next Best Offer + Cross Sell + Upsell
- Sold In

Support

IT
- Security + CRM / Lifetime Customer Value + Duplicate Record Detection

HR
- Attrition Modelling, Hiring and Succession

Legal
- Fraud Detection + Dispute Development

Finance
- Forecasting + Automated Authorizations

Operations
- Automation

Risk Management
- Actuarial tasks
- Risk Scoring + Underwriting + Claims Reserving + Suspicious Transactions
My Personal Career Journey – From Actuary to Data Scientist

- Price Competitiveness
- Reverse Engineer Pricing
- Price Comparisons
- Online Ad Bidding
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- Smart Customer Dashboard
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- Hiring and Succession
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- Dispute Development
- Forecasting
- Automated Authorizations
- Risk Scoring
- Underwriting
- Claims Reserving
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- Smart Customer Dashboard
- Next Best Action
- Funnel Modelling
- Browses / Click
- Product Recommendations
- Buys
- Text Mining
- Sentiment Analysis
- Net Promoter Score
- Next Best Offer
- Cross Sell
- Up Sell
- Sold In
- Product / Service
- Banner and Content Personalization
- Prices
- Price Elasticity

- Customer
- Agents and Brokers
- Marketing
- HR
- Legal
- Finance
- Operations
- Risk Management
- Actuarial tasks

- Security
- CRM / Lifetime Customer Value
- Duplicate Record Detection
Human Roles in Insurance
What Humans Are Best At

Communication and Engagement
Context and General Knowledge
Creativity
Empathy
When Customers Want a Human…

“humans are inherently social creatures who get emotional value from seeing and interacting with one another”

Source: https://hbr.org/2018/02/the-parts-of-customer-service-that-should-never-be-automated
Lessons From Banking

Research has shown that “when banking customers used the ATM more and the teller less, their overall level of satisfaction with the bank went down”

AI / Human Synergies in Insurance
Use AI For Transactions and Processing

Let the AI do work that is mundane, with predictable outcomes, and high volume.
Use AI To Triage Problems to Human Staff

AI can refer difficult judgement calls to humans.

For mainstream day-to-day processes, leave it to AI to give speedy solutions.
Facilitate Human Interactions

Don’t push customers away. No more “Select 1 to update your password, Select 2 for a premium payment…”

Give customers the option to contact a human up-front. Then empower that human with AI driven knowledge e.g. smart customer dashboard
Enhance Workflows That Involve Humans

Smooth the process so that technology doesn’t distract from human interactions.

Get AI to triage what staff see.

Show customers which person is helping them, and the status of the process.
Make Staff and Customers Visible to Each Other

Particularly for emotional issues.

Don’t make unsolicited emails the main communication line.
Reengineering Insurance Jobs and Hiring
Hire Staff for Soft Skills and Common Sense

Not for procedural skills.
Set Staff KPIs and Job Descriptions to Be About Engaging Customers

Not about the number of closed cases.
Underwriter

Key skills:
• Common sense
• Verbal judo
Claims Manager

Key skills:
• Compassion
• Verbal judo
Actuary

Key skills:
• Curiosity
• Communication
• Converting predictions into decisions
Summary
The Human Touch

Free up your humans to:

• Use soft skills with customers
  • Apply common sense
  • Create new solutions
  • Evangelise new ideas
• Generate sales and profit

Your staff will be more valuable and productive when you free them from the mundane, to do what they are best at.
Questions?

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