



Institute
and Faculty
of Actuaries

Machine Learning: Now and in the Future

Renaud Million | Co-founder & CEO | SPIXII



Agenda

- When it all started
- Insurance chatbots
- Machine learning applications



Institute
and Faculty
of Actuaries

When it all started



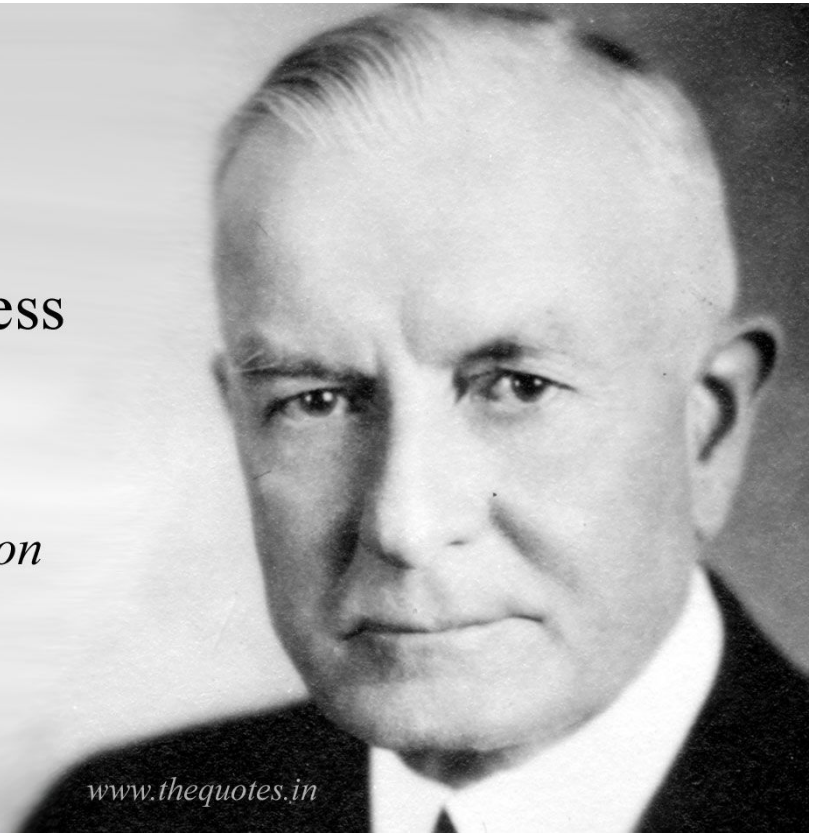
Introduction

- 10 years insurance industry
- Engineer with MSc Operational Research
- Non-life actuarial training with EY London office and not yet qualified!

If you want to increase your success rate, double your failure rate.

Thomas J. Watson

www.thequotes.in



Benefits of failure

- Gives **clarity**
- Builds **resilience**
- Offers **perspective**

Information asymmetry problem

- **Knowledge gap** between insurance buyers and offers
- Problem amplified by **poor customer experience**
- Asymmetry **present on the whole insurance value chain**:
 - Distribution
 - Customer service
 - Claims

SPIXII

- **Helping more people get better protected** since 2016
- **Technology company** with financial services clients in EMEIA
- End-to-end **automated insurance services**



Institute
and Faculty
of Actuaries

Insurance chatbots



Why insurance chabots?

Consumers want

- Peace of mind and quick
- 24/7 digital availability
- Visibility on what to do

Insurance providers want

- Grasp new opportunities
- Provide the best customer experience
- Efficient operations



ZARA, ZURICH'S CHATBOT CUSTOMER STORY

You can create a really **bad bot in ten minutes**
with a lot of technology today.

**It takes months and even years to actually
do it the right way.**

Jeff McMillan, Chief Analytics & Data Officer, Morgan Stanley



Institute
and Faculty
of Actuaries



Institute
and Faculty
of Actuaries

Machine learning applications

Why do we use machine learning?

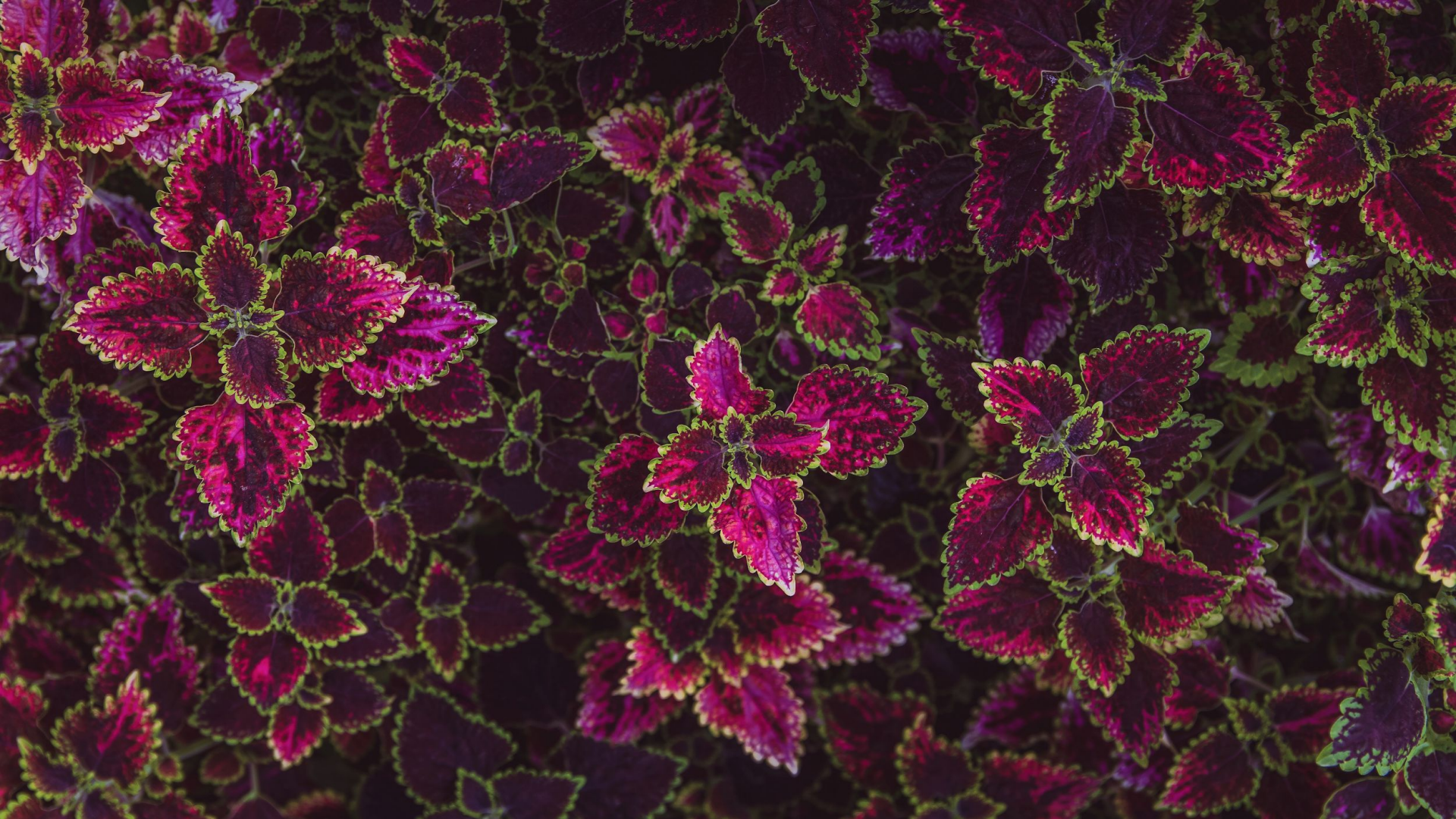
- To improve the customer experience of our users via **automated decisions**
- To extract **insights** and **unexpected correlations** within a large amount of data according to strict industry-specific compliance frameworks
 - eg: IDD, GDPR with data anonymisation
- To ensure the **availability** of SPIXII services
 - eg: auto-scaling groups



Data has a better idea

New data sources

- **Performance** of the conversations i.e. speed, devices, length of messages
- **User's behavior** i.e. time spent per question, number of edits per question
- Qualitative and quantitative **feedback** but allow “human learning” first



Identifying patterns by demographics and behavior

- Lowest-performing **conversation**
- Lowest-performing **section**
- Lowest-performing **question**



Acting on patterns

- **Input** for **decision making** when visualising SPIXII insurance chatbots
- **Build** and **improve** automated decisions within SPIXII automated services
- **Conversation live optimization** with predefined A/B/.../Z testing



Conclusion

- **Conversations** are used for selling and servicing **complex products**
- **Automated conversations** provide **new structured data sets**
- Machine learning gives opportunities to **improve services derived from the automated conversations**

Questions

Comments

The views expressed in this presentation are those of invited contributors and not necessarily those of the IFoA. The IFoA do not endorse any of the views stated, nor any claims or representations made in this [publication/presentation] and accept no responsibility or liability to any person for loss or damage suffered as a consequence of their placing reliance upon any view, claim or representation made in this [publication/presentation].

The information and expressions of opinion contained in this publication are not intended to be a comprehensive study, nor to provide actuarial advice or advice of any nature and should not be treated as a substitute for specific advice concerning individual situations. On no account may any part of this presentation be reproduced without the written permission of the IFoA.

Thank you

Renaud Million | [SPIXII](#)
renaud.million@spixii.com

[Zurich UK claims chatbot demo video](#)