

Webinar

Insurance meets GPT - AI Automation for smart Claims Handling



Speaker



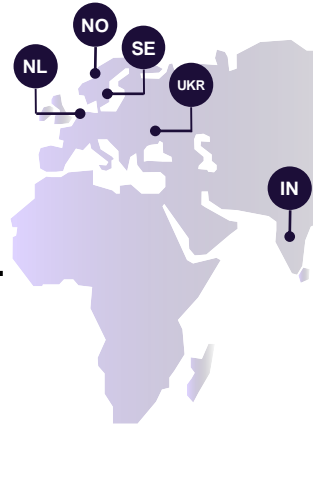
Dr. Kamal Ali
Chief Data Scientist at
Simplifai

Kamal Ali

- 5 years experience: Large Language Model, Deep Learning
- 30 years experience in Machine Learning.
- PhD: Ensemble Learning.
- 40 Peer reviewed papers, Conference chair, etc.
 - Stanford, Apple, IBM Research, Simplifai.
 - Start-up, Consultant, Chief Data Scientist.

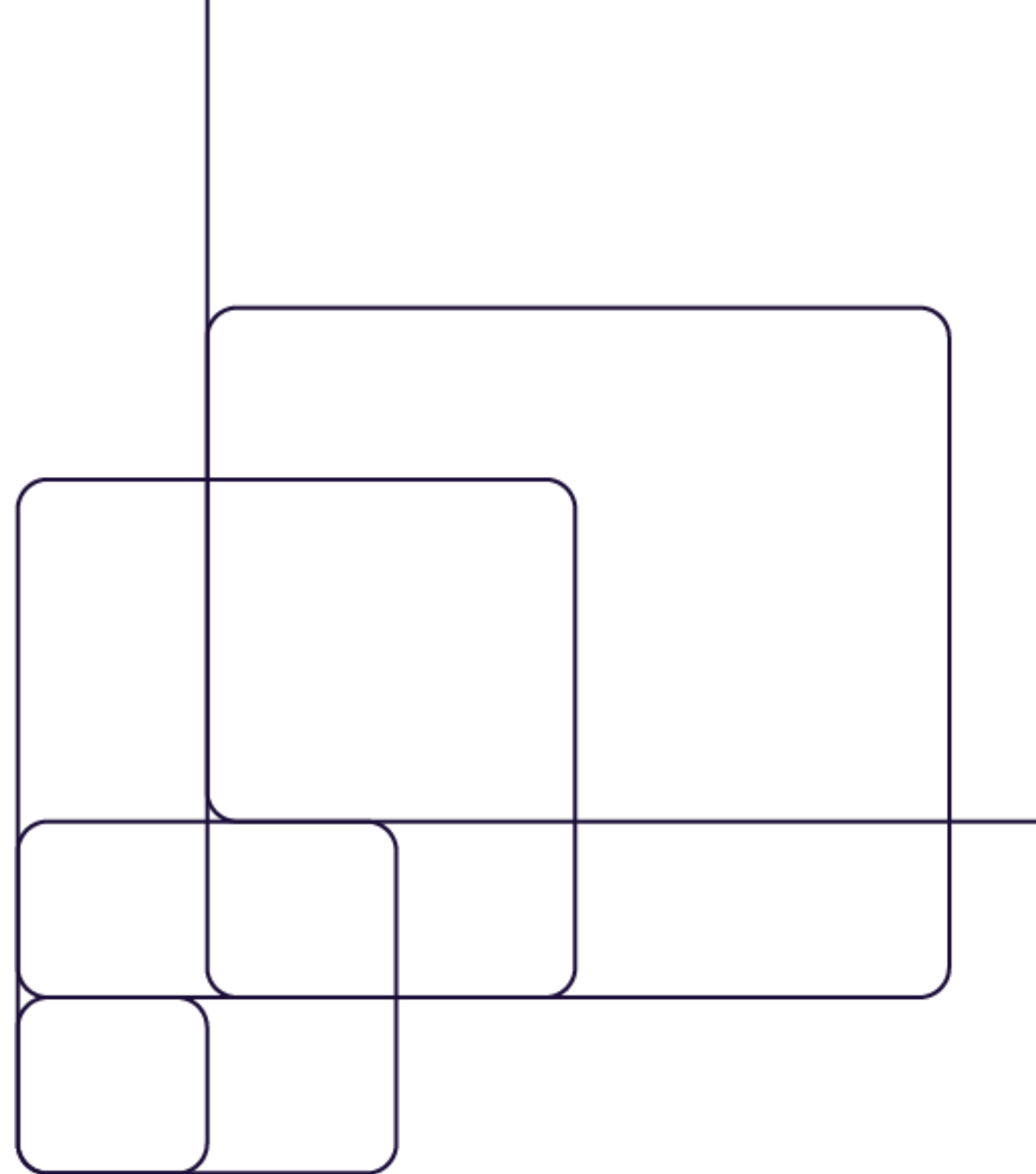
About Simplifai

- We empower businesses with AI-powered automation platform.
 - Improves business performance for leading Banking and Insurance companies.
- We adhere to best-in-class data privacy and security protocols.
- Over 110 employees from 10 different countries.
- Global client base and partner community.

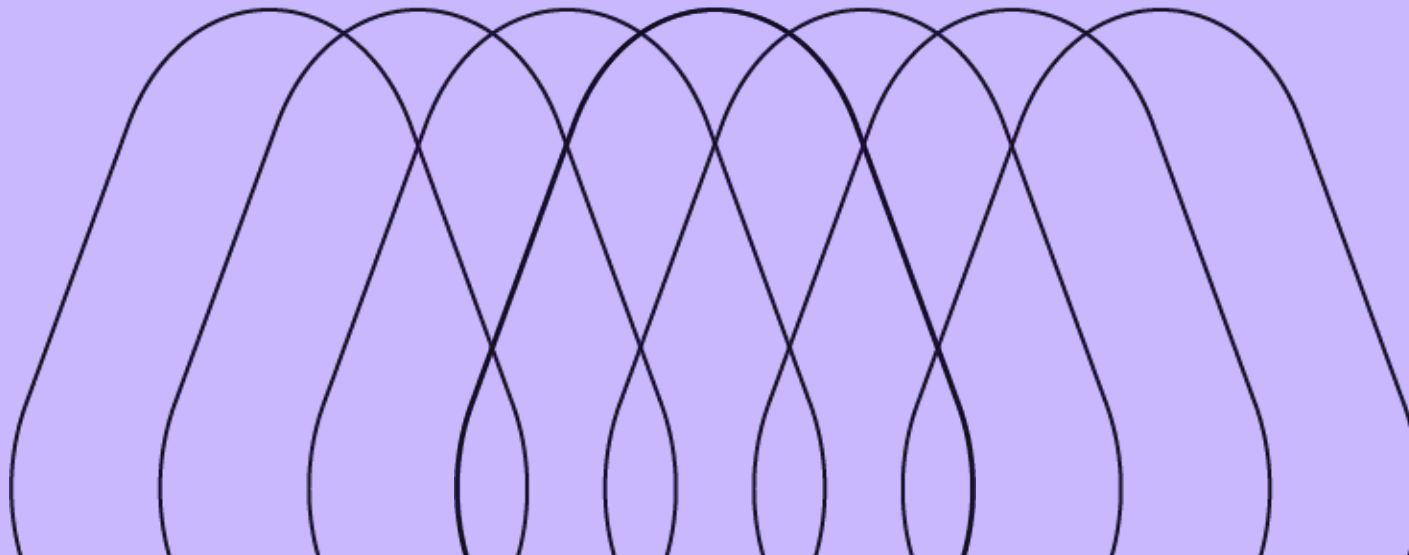


Agenda

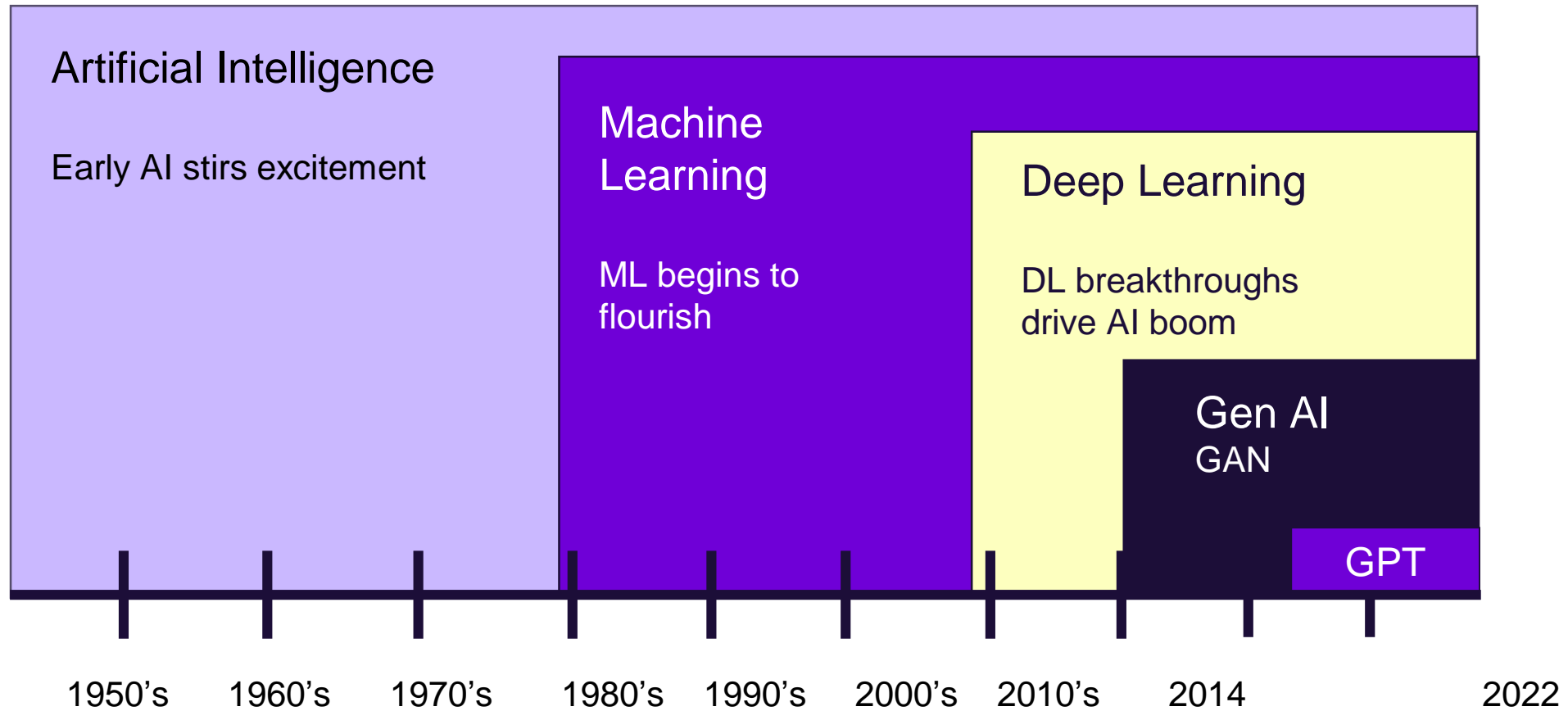
- 01 From AI to ML to LLM
- 02 GPT: Insurance
- 03 Q&A Session



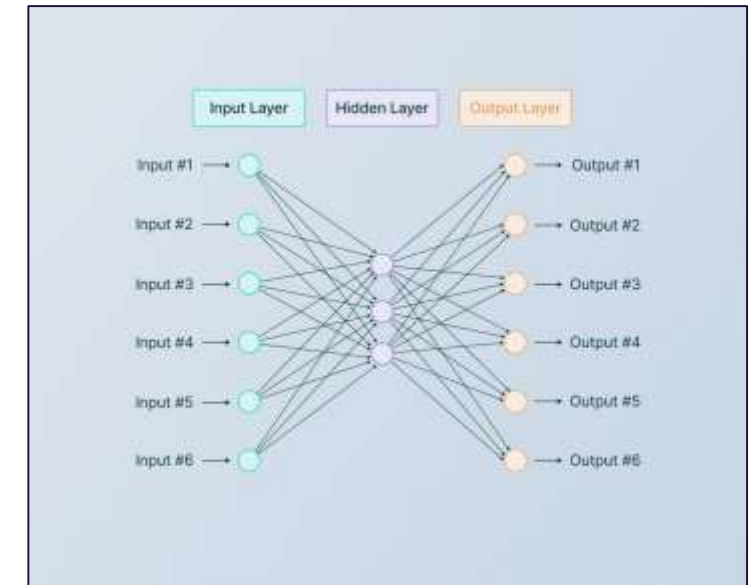
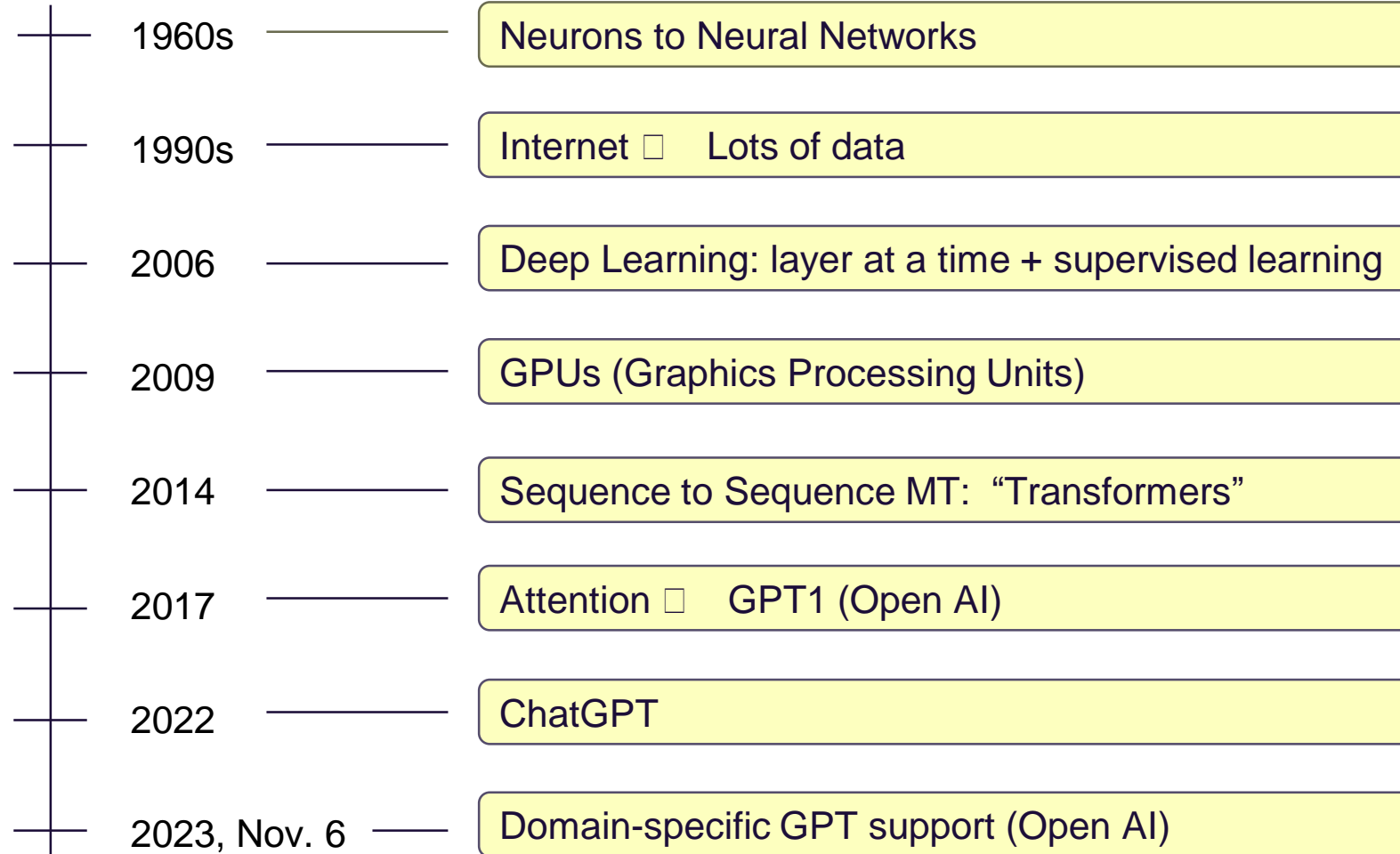
From AI to ML to LLM



From AI to GPT



History of ML: Big Data trumps Algorithm



Big Ideas



Data Volume: trumps clever algorithms.



Hardware: GPUs – massive parallelism.



Scale: Larger systems implied built by excellent software engineers, parallel hardware.



Attention: Machine Translation: Sequence to Sequence: What to pay attention to (what to remember).



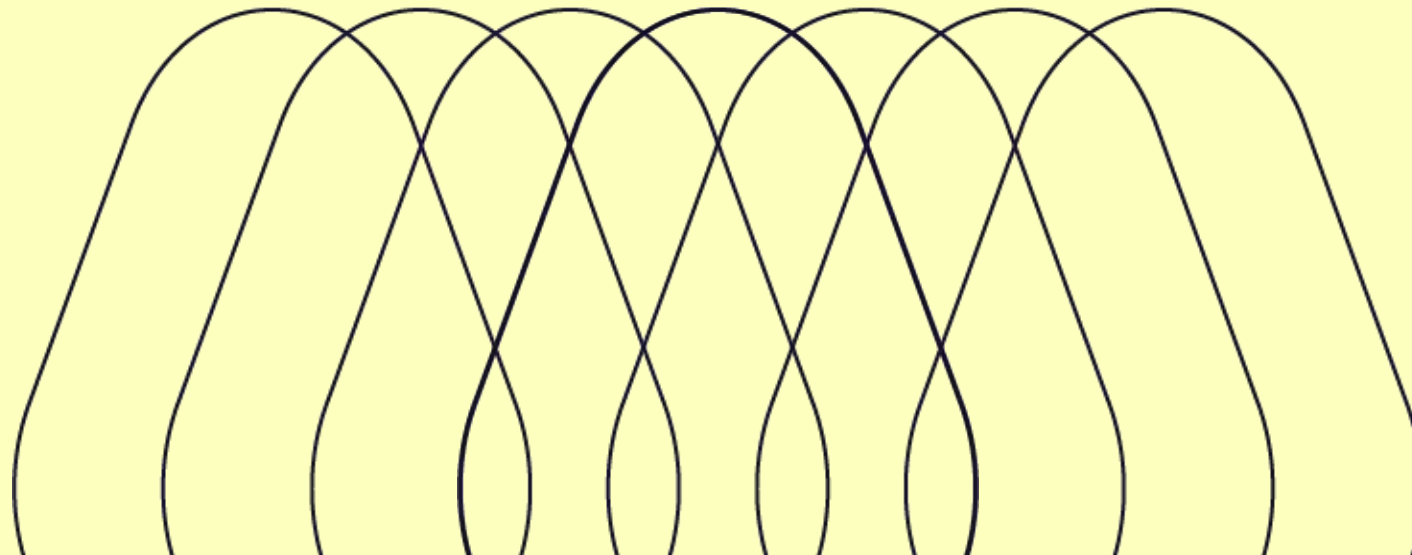
Transfer: Build company-specific models on top of general “Pre-trained” models.



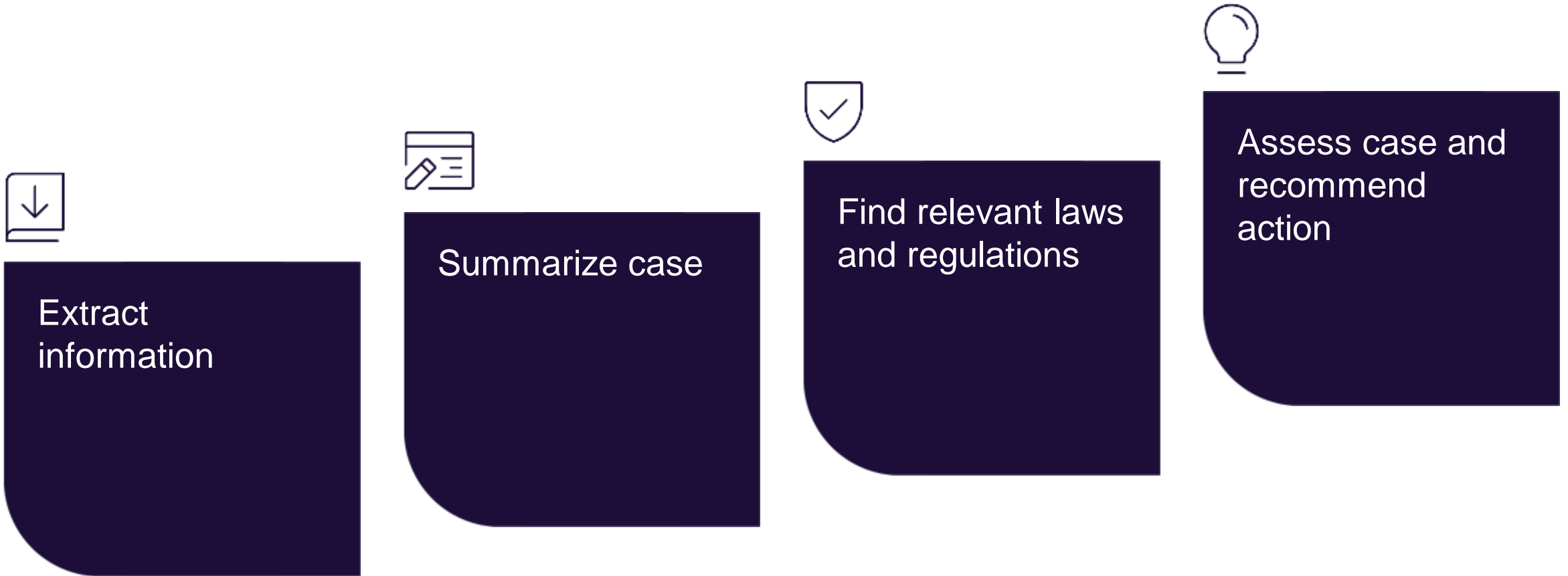
General Instructions.



GPT to Insurance GPT: IGPT

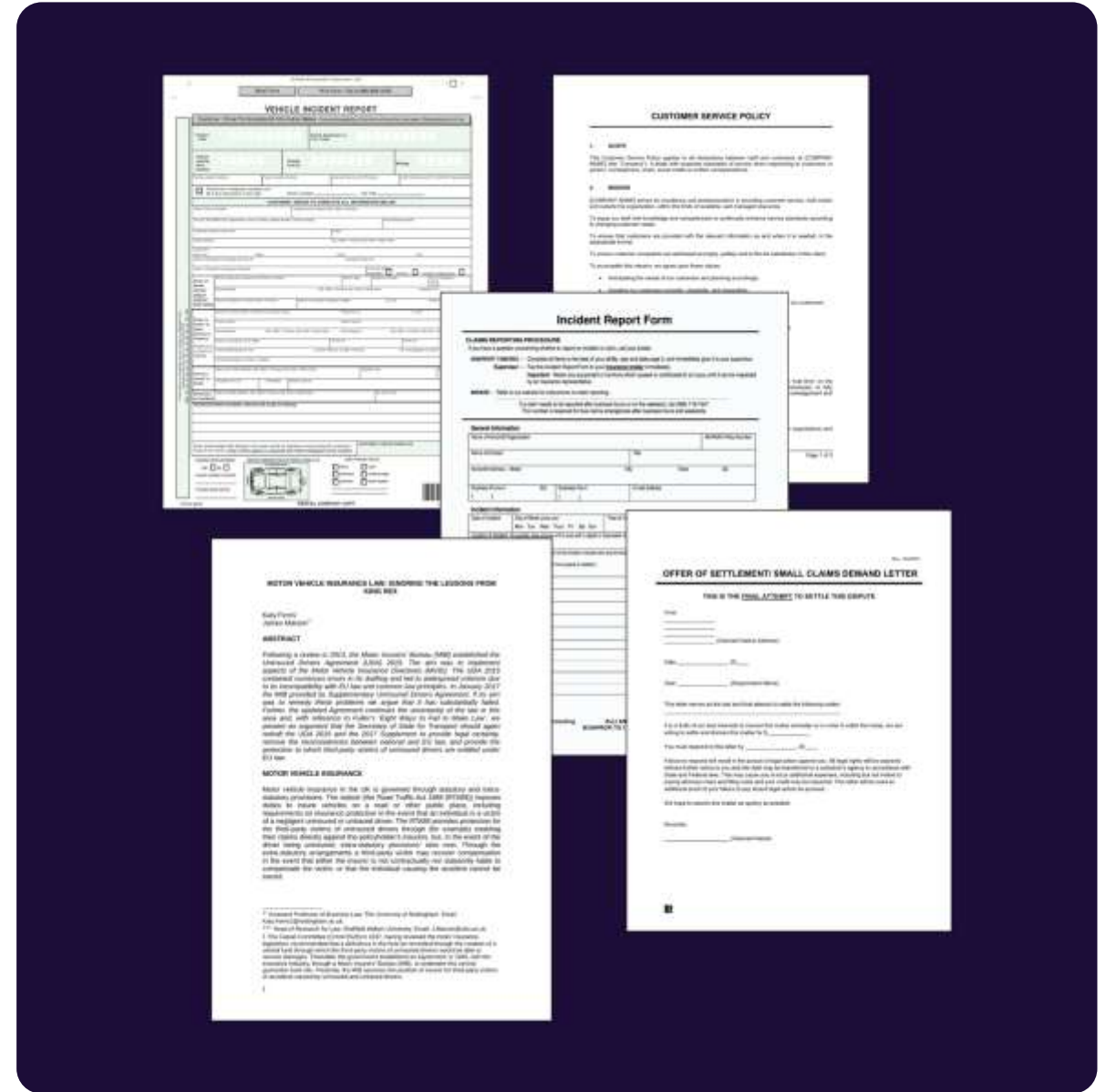


What are the main functions of IGPT?



What data does IGPT use?

- Insurance law.
- Customer policy.
- Damage Reports.
- Communications to/from customer.
- Claim outcome.

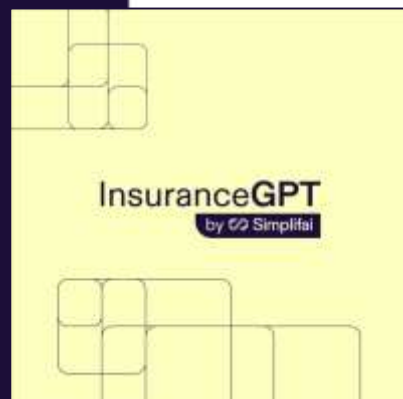



How is IGPT Trained?


- Take advantage of existing general language models: “pre-trained” models.
- ‘Fine tune’ on country-specific insurance law.
- ‘Fine tune’ on company policies.
- ‘Fine tune’ on historical customer data.


UI Preview



- Appearance will change based on claim system.







 Simplifai


 **InsuranceGPT**
Supercharge your Claim Handling process using InsuranceGPT.

 **Test Travel Insurance Claim**
Claim for Travel Insurance for Loss of Baggage during transit
In this travel insurance claim, the policyholder is seeking compensation for a lost piece of luggage and another piece that was damaged during an international flight. The claim includes supporting evidence such as a Baggage Irregularity Report, Incident report of the damaged items, and purchase receipts for high-value contents.


 Incident_Report.pdf
9.5 MB 

 BaggageReceipts.pdf
3.5 MB 


 FlightTickets.pdf
5.5 MB 

 **Travel Insurance Claim**
Claim for Travel Insurance for Loss of Baggage during transit


Summary
The claim involves a policyholder, John Doe, seeking compensation for both the loss of one piece of baggage and significant damage to another during an international flight with Global Airways. The claim, under policy TRV123456, includes evidence such as a Baggage Irregularity Report, photos of the damage, and purchase receipts for high-value items like a laptop and camera.




 **Nature of Claim**


- Loss of Luggage
- Damage to checked in luggage
- Loss of customer property




 **Incident Details**

- Incident Date: 25th Jan 2024
- Airline: Norwegian
- Flight Number: GA7890
- Loss Value: \$2500

 **Documents**

-  Flight Itinerary
-  PhotosofDamage.zip
-  BaggageTags.pdf

Recommendations 
Given the provided evidence, including the Baggage Irregularity Report and photographic proof, along with purchase receipts for the high-value items, recommend approval for compensation for the damaged goods, subject to policy limits and depreciation.

Suggested Reply   
Dear John Doe,
We're processing your claim for the damaged and lost baggage under Policy No. TRV123456. Compensation for the damaged items is approved, and we are coordinating with Global Airways for your lost baggage. Expect updates and settlement details soon.

Risks

- GDPR and ISO/IEC 27001:2013 compliant software.
 - Hosted in the EEA.
 - Restricted visibility.
- Hallucinations
- Bias

GDPR &
Compliance

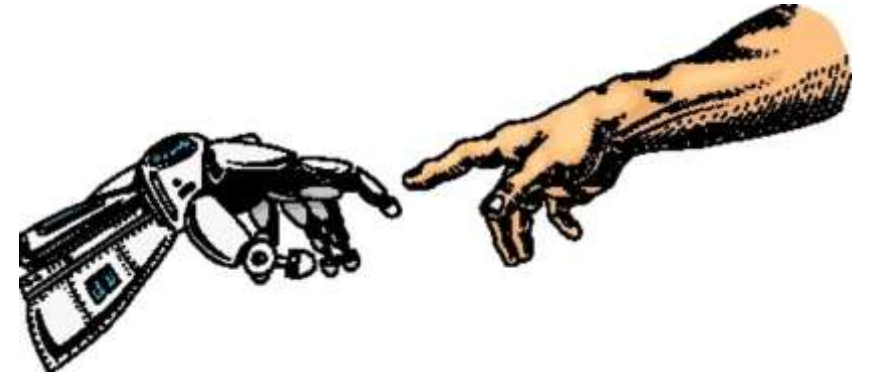
Intellectual
Property
Infringement

Explainability

Accuracy/
Hallucination

Large Language Models for Insurance

- LLMs: They are **text generators** : not problem solvers, definitely not a full system
- May incidentally have some knowledge of Insurance
- Probably does not have :
 - Country-specific regulations
 - Company-specific Terms and conditions
- Definitely does not have:
 - Company-specific proprietary processes



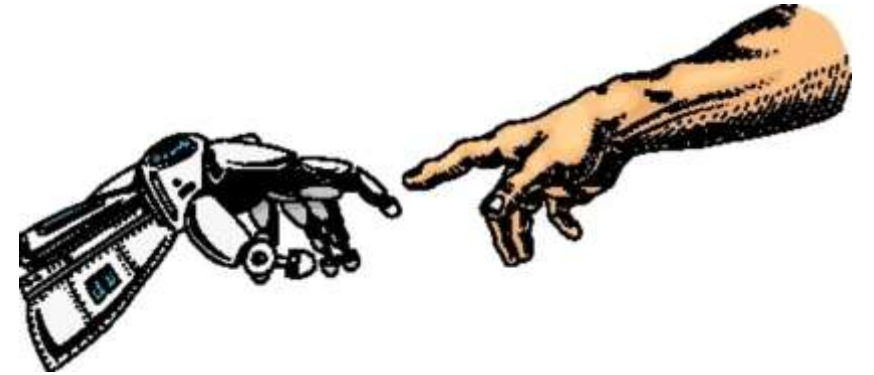
Insurance GPT @ Simplifai

1. Integrated Claims Handling System

- Claims Intake
- Claims Processing

2. A: LLM fine-tuned on top of public LLM

- Auto LLM
- Home Claims LLM
- Travel Insurance LLM
- more



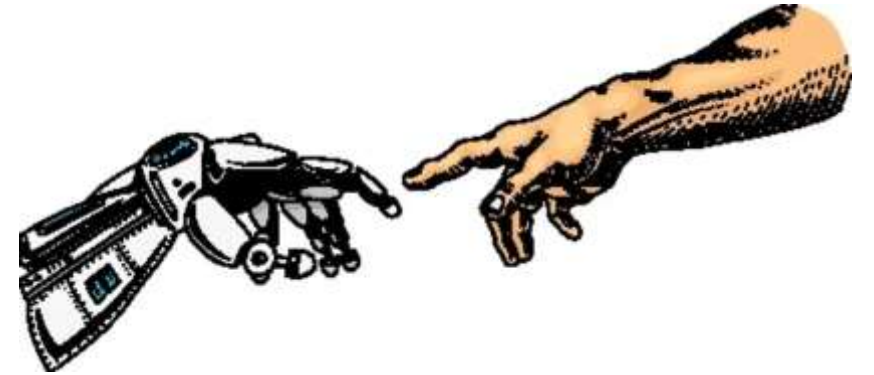
Motor Insurance GPT @ Simplifai

1. B: LLM fine-tuned on country regulations:

- Netherlands
- Norway
- ... more

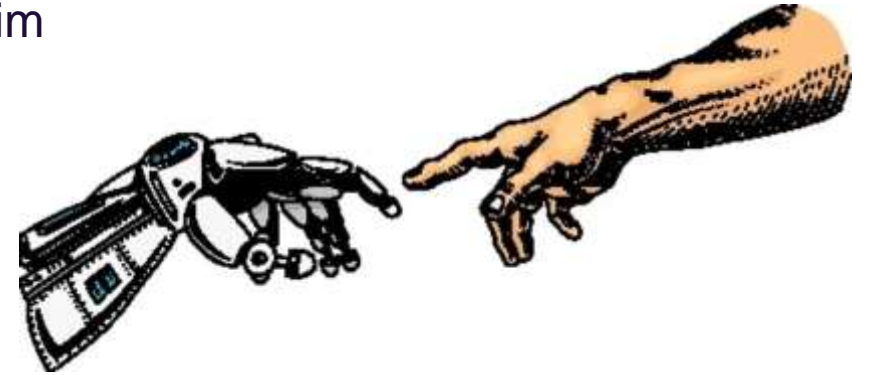
1. C: LLM fine-tuned on company-specific:

- Terms and conditions
- Process ordering
- Generation of emails
- Assessment criteria



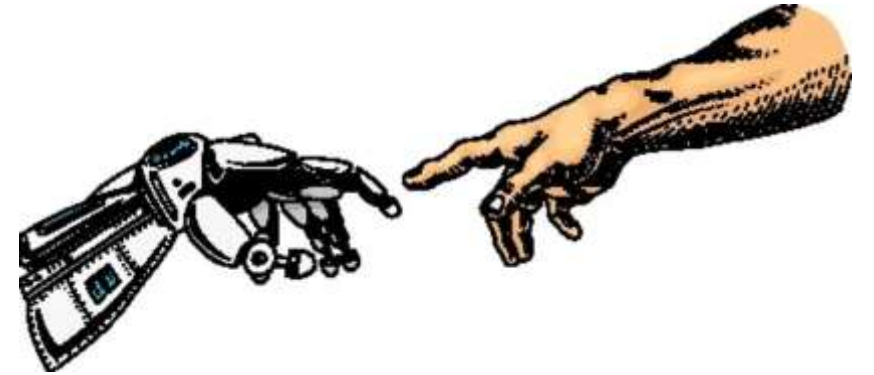
IGPT Functionalities as Assistant to CH

- **Attention Focusing**
 - Brings attention to which attributes of Claim are most important
- **Claim Summarization**
 - Refresh CH's memory as to what reports have gathered in this claim
 - Remind CH as to what conclusions have already been reached
- **Law Finder**
 - Suggest to CH laws that may apply (CH can override)
- **Assessment Generator**
 - Suggest Accept/Deny conclusion (CH can override)
- **Email Generator**
 - Save time for CH by generating emails that CH can quickly make small modifications to before sending out



Additional IGPT Functionalities

- **Confidence Ranking**
 - Allows CH to focus on the less confident parts
 - All is done to assist CH and reduce time to completion
- **Embedded Mode**
 - IGPT can process reports before CH gets to work
 - One day: IGPT can automatically send out emails:
 - E.G. to request missing documents
 - Reduce mundane work for CH
- **Interactive Mode**
 - CH can override anything IGPT suggests
 - Refresh CH's memory regarding previous reports, emails



Take aways

- **Full System: IGPT**
 - Auto Insurance Claims Handling
 - More verticals coming
- **Assistant**
 - Claims Handler user has the final say and can modify outputs
- **Privacy and Security**
 - Simplifai is very careful to adhere to EU GDPR regulations
 - Car accident data can be very private
 - Engineers inside Simplifai not on the account cannot see the data
 - Engineers outside EU cannot see the data
- **Value**
 - LLMs are chained together in a full system : IGPT
 - IGPT helps Claims Handlers be more efficient and consistent

