# IFoA Gen AI Working Party Survey

## v0.3

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| User | Version | Comments |
| Betty Zhu | v0.1 | Initial Commit - Draft |
| Daniel Ramsay | v0.2 | Grammar and changes to questions |
| Betty Zhu | V0.3 | Address review comments; Added more technical questions |

**About us**

Generative AI (GenAI) refers to a category of artificial intelligence models designed to create new content, such as text, images, audio and more, by learning patterns from existing data. The most famous subset of GenAI are Large Language Models (LLMs). These models leverage deep learning techniques to generate human-like outputs based on natural language processing (NLP), revolutionizing creative processes and augmenting human capabilities across various industries.

The formation of the IFoA GenAI working party aims to harness the potential of these technologies in a structured and strategic manner. We aim to educate members about the latest developments in GenAI and its applications in the IFoA members practice areas. We are also dedicated to exploring, researching, and developing GenAI solutions to drive innovation in this domain. By leveraging these advanced models and techniques, we hope to encourage innovation and revolutionize actuarial practices, including but not limited to enhancing predictive analytics, offering better customer services, automating complex processing tasks, and ultimately helping to improve the organization’s business decision-making processes and profitability via increased sophistication of analytics and operational efficiencies.

**About this survey**

Through this survey, we seek to comprehend how GenAI is being utilized by IFoA members in their respective domains. Additionally, we aim to understand what our members want to see and learn so we can prioritize our research initiatives effectively. By participating, you will help shape the future focus of our work, ensuring that we address the most relevant and impactful topics.

We will analyse the survey results and provide feedback to the members, keeping you informed about the directions and developments driven by your input.

As a token of appreciation, you will have early access to the results before they are available to the general public. Your participation is valuable and will significantly contribute to our collective progress.

**Section 1 – Tell us a little more about yourself.**

Q1. What is your current job responsibility? [single choice allowed]

1. Underwriting
2. Claims
3. Pricing
4. Reserving
5. Capital
6. Finance/Reporting
7. Others

Q2. What is your firm’s size? [single choice allowed]

1. 1-10 employees
2. 11-50 employees
3. 51-200 employees
4. 201-500 employees
5. 501-1000 employees
6. 1001-5000 employees
7. 5001-10,000 employees
8. 10,001+ employees

Q3. Which field are you currently working in? [single choice allowed]

1. Life
2. General Insurance/Non-Life
3. Pension
4. Banking
5. Others

Q4. What is your level of seniority in your current role? [single choice allowed]

1. Junior-level
2. Mid-level
3. Senior-level
4. Executive/C-suite
5. Other (please specify) \_\_\_\_\_\_\_\_\_\_\_\_\_

**Section 2 – Now, we’d like to understand your vision and your familiarity with GenAI.**

Q5. How would you rate your overall knowledge of GenAI? [single choice allowed]

1. No knowledge
2. Basic understanding
3. Intermediate knowledge
4. Advanced/Expert knowledge

***Definition of GenAI application:*** *GenAI applications are software solutions that leverage advanced deep learning models to produce contents that mimics human creativity and cognition. One famous example is ChatGPT, which is a conversational AI application based on one of the closed-form LLMs, Generative Pre-trained Transformer (GPT) models (e.g., GPT-4) developed by OpenAI.*

Q6. Which GenAI application do you use most frequently? Please rank them by frequency of use (if you’ve never used a particular tool, please exclude it from your ranking). [ranking]

1. OpenAI ChatGPT
2. Google DeepMind Gemini
3. Microsoft CoPilot
4. GitHub CoPilot
5. Others (please specify) \_\_\_\_\_\_\_\_\_

Q7. Which GenAI applications are you permitted to use in your workplace (select all that apply)? [multiple choices allowed]

1. ChatGPT
2. Google Gemini
3. Microsoft CoPilot
4. Unsure/Unaware
5. None
6. Others (please specify) \_\_\_\_\_\_\_\_\_

Q8. How do you believe GenAI will change the role of actuaries in the next 5-10 years? [single choice allowed]

1. No significant change
2. Some changes but core roles remain the same
3. Significant changes in roles and responsibilities
4. Completely transform the actuarial profession

Q9. Are you aware of any initiatives your company has undertaken in the GenAI domain (select all that apply) [multiple choices allowed]

1. Development of GenAI-driven products or services
2. Investment in GenAI Research and Development efforts including recruitment of relevant expertise in this domain
3. Training and education programs on GenAI
4. Collaboration with GenAI technology partners
5. Implementing GenAI-driven techniques to help with internal analysis and processes
6. No, I’m not aware of any initiatives
7. Others (please specify) \_\_\_\_\_\_\_\_

Q10. (if you select D in Q5) Which Language Model do you primarily use for your GenAI related tasks at work? Please specify all that apply and specify the version, rationale, and use case.

[multiple choices allowed, and text box followed for each choice – please make the text box field mandatory]

1. Open-source LLMs (e.g., Llama, Mistral)

Version: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Rationale and use case: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Closed-source LLMs (e.g., GPT-4 from OpenAI, Claude from Anthropic

Version: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Rationale and use case: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Others (please specify)

Version: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Rationale and use case: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q11. (if you select D in Q5) What are the other types of neural networks you have worked with for GenAI related task other than Transformers (i.e., the foundations for most current LLMs)? Please specify all that apply and specify THE rationale, and use case. (select all that apply)

[multiple choices allowed, and text box followed for each choice – please make the text box field mandatory]

1. Generative Adversarial Networks (GANs)

Rationale and use case: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Variation Autoencoders (VAEs)

Rationale and use case: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Recurrent Neural Networks (RNNs, including LSTMs)

Rationale and use case: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Others (please specify):

Rationale and use case: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. None

Q12. (if you select D in Q5) What are the frameworks you use for developing GenAI models? (select all that apply) [multiple choices allowed]

1. TensorFlow
2. Keras
3. PyTorch
4. LangChain
5. Others (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q13. (if you select D in Q5) Which of the following approaches have you used in your projects? Do they get used eventually in production? (select all that apply) [multiple choices allowed]

1. Using pre-trained LLMs directly
2. Fine-tuning a pre-trained LLMs
3. Retrieval Augmented Generation (RAG)
4. Prompt Engineering
5. Training a model from scratch

Q14. Which topics would you like to learn more about or see more publications on using GenAI? Please rank them by your level of interest (if certain topic is not of your interest, please exclude it from your ranking). [ranking]

1. More education about general GenAI trends and knowledge
2. Data cleansing and manipulation (e.g., guessing missing fields)
3. Enhancing traditional predictive modeling exercises (e.g., risk and demand modeling)
4. Reporting generation and analysis (e.g., regulatory compliance)
5. Marketing and Sales (e.g., marketing material creation and sales lead generation)
6. Underwriting (e.g., algorithmic underwriting)
7. Customer services (e.g., automated policy generation, building bespoke chatbots)
8. Claims Analytics (e.g., fraud detection)
9. Coding Assistance
10. Others (please specify) \_\_\_\_\_\_\_\_\_

**Section 3 – Joining us**

Would you like to join us? If you are interested and if you meet the following qualifications, please upload your resume using the button below, and construct a paragraph around your relevant experience in this domain and motivations.

Qualification:

1. You are an actuary, data scientist or technologist that develops tools or applications or provides consulting services that incorporate GenAI to expedite actuarial or insurance-related tasks
2. …..OR You are an academic in the field of artificial intelligence and machine learning

Upload resume: [button]

Reason: [text box]

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