Robo-X: A Federated Learning Engine & Massively Trained AI for transforming customer experiences and subscription business value.

1.1 Introduction

Robo-X is a cutting-edge AI, purpose-built for improving **subscription business value**. Robo-X is massively trained on trillions of real-world, domain-specific data, ensuring superior results (accuracy and outcomes) out of the box. Powered by a unique Federated Learning Engine that combines learnings across markets and use cases, Robo-X consistently improves results over time. With numerous patents and industry recognition, such as being included in Gartner's Magic Quadrant for 2024, Robo-X embodies the transformative potential of AI and is a worthy candidate for the AI award

1.2 Industry challenges

Subscription-based businesses like telcos, banks, fintechs, loyalty providers and others, all face common challenges such as high customer churn, declining revenue, slow adoption of digital channels, inefficient self-care processes, and lack of personalisation. Despite significant analytics and AI investments, their systems fall short due to a variety of reasons. AI tools and models are often designed in a generic sense and don't have sufficient domain-specific training to provide consistent accuracy. Frequent changes in customer behavior, regulatory differences, and market dynamics additionally render their AI methodologies ineffective, providing stale insights and suboptimal recommendations.

The result - most companies not only struggle to attain expected ROI with new AI projects. During this time, customer experiences continue to lag, representing missed opportunities and declining loyalty.

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1.3 Addressing the challenge: our unique AI with Federated Learning Engine

At Flytxt, we have embraced this challenge by offering AI as a SaaS product, powered by Robo-X, our massively-trained AI for subscription businesses. A unique aspect of Flytxt's AI engine is Federated Learning; i.e. its ability to combine the learnings from localised data sets. Our AI deployed at an enterprise, learns from that market and also combines learning from several other markets. This leads to a massively trained AI, which in turn ensures superior performance out-of-the-box for AI deployed locally in a market for specific use cases. This advanced cycle of learning enables our AI to continuously learn and improve from more real-world data each day, massively training it to adapt and improve results consistently across markets and a variety of use cases.

Our Federated Learning Engine is the cumulative result of 10+ years of deep research in AI & Machine Learning, conducted by Flytxt in close collaboration with Indian Institute of Technology, Delhi (IIT, Delhi) and the Netherlands Organisation for Applied Scientific Research (TNO, The Netherlands). Our IP encompasses 100+ AI algorithms and machine learning techniques, and is covered under 12 patents granted across US, Europe and India.

1.3.1 Robo-X Advantages

1. **Massively Pre-Trained AI.**
   o Our AI is trained on trillions of real-world, domain-specific (e.g. subscription business) first person data points, providing superior out-of-the-box accuracy.
   o Delivers actionable insights from day 1 without requiring extensive customisation or data science effort.
2. **Federated Learning Engine.**
   o Enables secure cross-market collaboration to refine AI performance over time.
   o Combines learnings across markets to ensure continual improvement.
   o Powers rapid adaptation to changing market dynamics and customer behaviours, ensuring continuous relevance and precision.
3. **Focus on Subscription Businesses**.
   o Tailored to customer journeys in subscription-based models.
   o Trained on the data from over 800 million customers.
   o Generates next-best decisions to drive upselling, cross-selling, and retention strategies, generating substantial business value.
4. **Standalone Plug and Play AI SaaS Applications**.
   o Packaged into multiple AI SaaS applications that drive best decisions and actions to maximise Customer Lifetime Value (CLTV), across different workflows in the Product and Customer Lifecycle of subscription businesses.
   o Easy to subscribe and integrate into existing workflows and any CRM/CX stack with minimal effort. Provided with industry-standard APIs to integrate them with any external IT environment with ease.
5. **Superior Features Including Privacy and Explainability.**
   o Powered by patented privacy-preserving analytics technology that uses advanced encryption mechanisms and distributed learning.

Our AI is enhanced by our "explainable-AI framework," providing AI explanations to interventions recommended by Robo-X, enabling marketers to understand and trust Robo-X decisions.

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1.4 Business Solution

Flytxt's unique AI is packaged into a software product and multiple applications that drive optimal decisions and actions to maximise CLTV, across different workflows in the Product and Customer Lifecycle of subscription businesses.

The typical use cases Robo-X addresses include:

- **Product Management (Product Design & GTM Planning):** Generating new product ideas, ensuring the best product-market fit, dynamic pricing, and more.
- **Digital Commerce (Product Bundling & Catalogue Management):** Designing new product bundles, ensuring the best offer-channel mapping and optimising catalogues.
- **Marketing (Campaigns & Journeys):** Generating new campaign designs, timely actions, adaptive content/ offers/segments and optimising campaign performance..
- **Sales (Upsell & Cross Sell):** Designing novel up sell & cross sell programs, advanced contextual offers, refined third party product & channel mixes, and more.
- **Retention (Churn Prevention & Loyalty Enhancement):** Designing effective customer retention programs, reactivating dormant customers and providing loyalty rewards.
- **Customer Service (Proactive Omni-channel care):** Proactively recommending best fit agents, optimising self-care interactions and generating new resolution processes.
- **CX Governance (ROI measurement & value assurance):** Accurately measuring 360 degree CX outcomes, conducting desired vs actual ROI gap analysis, designing prompt actions for CX assurance.

1.4.1.1 Impact and Results

- Over 80 enterprises from Telecom and BFSI sectors across the world use Flytxt's AI for generating measurable ROI (Examples: 68% higher conversions, 25% increase in repeat purchases, 14% increase in channel usage, 28% reduction in Churn, 22% faster service time, 12% higher acquisition, 10% higher pricing efficiency, etc.)
- The average accuracy of our AI is over 80% across markets and use cases, continually improving through a Federated Learning Engine that adapts and refines insights over time.
- Our AI is acclaimed across the industry – Gartner Magic Quadrant 2024, Forrester in 2024 and 2022, Frost & Sullivan in 2023 and 2021, Analysys Mason in 2024 and 2023 and by Appledore research.

1.4.1.2 Real-World Examples from different sectors

Over 80 enterprises, with a collective 800+ million subscribers, throughout Telecom and BFSI sectors across the world use Flytxt's AI for generating measurable ROI. Some latest real-world use cases from different sectors include:

- **Predicting customer intent:** Accurately predicted customer intent for 60% of inbound calls for a prominent retail bank in Asia.
- **Uplifting customer lifetime value:** For a leading Asian MVNO, Flytxt's AI was able to increase overall Customer Lifetime Value by 2%
- **Increase in multi-content subscription**: An OTT services company leveraged Flytxt's AI to observe an 18% increase in music streaming, a 17% increase in news channel subscription and a 9% improvement in gaming playtime.
- **Revival of data dormant subscribers:** Predicting data inactivity with 83% accuracy, reducing data churn and boosting monthly data usage by 9.2%

- **Improving collection efficiency**: A leading BNPL firm regularises payment behaviour resulting in an average incremental impact of 8% per month leveraging Flytxt AI
- **Accelerating sales conversions**: AI-guided sales resulted in 2X improvement in net conversion percentage in a month for a leading African telco
- **Optimising campaign performance**: 44% more net conversions from AI-recommended campaigns

1.5 Future Roadmap

1.6 Agentic AI

Flytxt is already implementing our Agentic AI approach. Unlike AI Co-pilots that are currently in use, which are designed to aid humans in executing their tasks efficiently, agentic systems introduce a degree of autonomy. Flytxt is developing an ecosystem of multiple AI Agents that will help enterprises dynamically plan, execute, and iterate on tasks, such as automating the entire cycle of campaign optimisation, designing high performing digital products, or generating new offers that elevate cross-selling. And Flytxt's AI Agents can also work seamlessly with other general purpose AI Agents too.

Robo-X Agentic AI will help business users complete complex workflows and decision making efficiently and productively.

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1.8 Ethical and explainable AI

Ethical AI design, particularly as Agentic AI systems develop, is crucial because these systems operate with a higher degree of autonomy and decision-making capabilities than traditional AI. This autonomy can introduce unique ethical challenges, such as unintended consequences, bias propagation, and privacy risks. To address these challenges, Flytxt is incorporating the following ethical AI elements:

- **Transparency and Explainability.**
  - o Robo-X provides clear explanations for their decisions and actions, enabling users and auditors to understand the reasoning behind the output
- **Bias detection and mitigation.**
  - o Bias audits are designed to detect and reduce biases in the decision-making processes, ensuring fairness across all user groups.
- **Data Privacy and security.**
  - o Besides encryption and standard security safeguards, Flytxt has a patent on privacy-preserving data sharing!
- **Safeguarding Against Hallucinations and Misinformation.**
  - o Robustness of data redundancy, adversarial testing and feedback loops help prevent false information.
- **Human Oversight and Control.**
  - o Human oversight should remain a critical part of the workflow to prevent undesirable outcomes. Human-in-the-Loop (HITL) enables customers to review and intervene in all critical decisions.

1.9 Conclusion:

Robo-X represents a bold leap in AI innovation, transforming subscription businesses with its Federated Learning Engine and AI SaaS and Agentic AI applications. Delivering measurable results like reduced churn, improved conversions and increased customer lifetime value, Robo-X addresses critical challenges while ensuring privacy, compliance, and explainability. With proven success across industries and a commitment to driving ethical AI advancements, Robo-X is redefining customer value management and stands as a deserving candidate for the Boldest AI Award.