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Impact Assessment

Analyzing transcripts of customer conversations with AI Receptionists

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Introduction

This document summarizes the key ethical and societal considerations of my AI conversation analytics project. As businesses increasingly use AI receptionists and voice agents, it becomes important to analyze their conversations responsibly. I reflect on how I balance model quality with privacy, why I explore a hybrid technical approach, and how I consider broader impacts such as job shifts and safety in unmanned environments. The goal is to show that the project is developed with awareness, responsibility, and respect for the people who interact with it.

Balancing Model Performance and Privacy

Businesses are increasingly relying on AI-powered customer service tools, such as voice assistants and AI receptionists. While these systems make operations more efficient, they also generate huge amounts of conversation data that companies want to understand better. My project addresses this need by analyzing call transcripts to uncover patterns, common questions, and customer needs. That value is clear, but achieving it responsibly is not straightforward.

The biggest challenge I face is finding the right balance between model quality and data protection. The best-performing models for voice agents and advanced transcript analysis usually come from big tech companies like Google and OpenAI, but sending conversation data to external services raises concerns around GDPR, the AI Act, and general user trust. On the other hand, self-hosted or EU-based options like Mistral or Llama offer far more control and transparency but may deliver slightly lower accuracy. This tension drives my research into a hybrid approach: using local models where privacy is critical, and only relying on higher-performance external models when the data can be minimized, anonymized, or safely abstracted.

Throughout the project, I consult teachers, legal experts, and AI specialists to ensure my architectural choices keep stakeholders' interests in mind. Not just businesses, but also the customers whose conversations and personal details appear in these transcripts. I aim for a system that is transparent about how it works, avoids unnecessary (private) data collection, and prevents misuse like excessive employee monitoring or unfair profiling.

Automation, Workforce Impact, and Safety in AI-Driven Services

Ethical questions around jobs inevitably arise with AI receptionists. My view is that I am not the one “inventing” AI or deciding whether companies replace staff; the global trend toward automation is happening regardless, as we already see in places like China where fully physical robotic receptions exists. Businesses choose to go unmanned for financial and operational reasons, such as offering 24/7 service, reducing labor costs, or matching customer expectations for round-the-clock availability. My responsibility is not to force that choice, but to ensure that if they *do* choose AI, the implementation is transparent, safe, privacy-respecting, and beneficial for customers.

At the same time, I acknowledge that AI replaces some roles while creating others. My focus is on improving customer experience, making it faster and easier for people to handle their requests at any time and helping businesses operate more efficiently. In many cases, the model may even work alongside human staff: human receptionists during the day, AI at night.

Safety is another important consideration. When a location is unmanned, there is no staff physically available in emergencies. While this is ultimately the business’s decision, I aim to support them ethically by providing risk assessments and practical recommendations. For example, a gym using AI receptionists at night should have equipment like defibrillators available or clear emergency protocols in place. I cannot enforce these measures, but I can advise them responsibly and highlight possible risks.

Overall, this project is not only about providing analytics. it is about navigating the upcoming reality of AI-powered customer service in a way that respects privacy, supports businesses, and maintains ethical awareness. My role is to design a system that fits within that reality responsibly, transparently, and with consideration for the people who interact with it.

Conclusion

This impact assessment shows that the technical decisions in my project are closely connected to ethical, societal, and practical considerations. By choosing a hybrid approach, prioritizing privacy, and staying aware of the implications of automation and unmanned services, I aim to design an AI system that is both useful and responsible. Although businesses ultimately decide how they implement AI, my role is to support them with transparent, safe, and thoughtful solutions. With this mindset, the project can contribute positively to both customer experience and organizational efficiency while respecting the people involved.