

Chatbot for Identifying Cases of Domestic Violence and Land Grabbing

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Abstract— This project creates a chatbot prototype designed to assist users in identifying and addressing two serious societal issues: domestic violence and land grabbing. This chatbot is designed to help people understand whether their situation falls under illegal land grabbing or domestic violence and guide them toward the right support. By analyzing what users say, it picks up key details—like whether someone is being forced out of their land without legal rights or if they are experiencing abuse at home. For land disputes, it looks for signs like forged documents, threats, or forced evictions. For domestic violence, it recognizes patterns of physical, emotional, or psychological harm. Once it understands the issue, the chatbot provides helpful next steps, such as legal resources, emergency contacts, or support services. The goal is to make it easier for victims to seek help without confusion, ensuring they get the right assistance as quickly as possible

After assisting the user, it encourages feedback to improve the chatbot's future interactions. Designed with user support and accessibility in mind, this system aims to offer immediate, relevant assistance in navigating complex problems as quickly as possible.

Keywords: Chatbots, Artificial Intelligence, Illegal Land Grabbing, Domestic violence, Question-Answer System.

I. INTRODUCTION

In today's digital era, artificial intelligence (AI) has revolutionized how people interact with technology, particularly through the use of chatbots. A chatbot is an AI-powered software application designed to simulate humanlike conversation, offering an interactive and automated way to provide information, support, or services. This project seeks to harness the power of conversational AI to develop a chatbot designed to assist individuals facing two critical social issues: domestic violence and land grabbing. Domestic violence remains a widespread and pressing concern, affecting millions of individuals worldwide. Victims often struggle to seek help due to fear, lack of resources, or the inability to access immediate support. A chatbot specializing in domestic violence support can bridge this gap by guiding users through a

confidential and structured conversation to assess their situation, provide safety planning advice, and connect them with relevant resources such as shelters, helplines, and legal aid services (Anderson, Lewis, & Martin, 2020) [4]. By ensuring accessibility and anonymity, such a system empowers individuals to take the first step toward seeking help in a safe and non-intimidating manner.

Similarly, land grabbing poses a significant legal and social challenge, particularly in regions where property rights enforcement is weak or where marginalized communities face unlawful dispossession of their land. Many individuals affected by land disputes lack the legal knowledge or financial resources to navigate complex legal proceedings. The chatbot developed in this project will assist users in identifying whether they are experiencing land grabbing, inform them about their legal rights, and provide guidance on the necessary steps to take, including how to file complaints or connect with legal professionals specializing in property disputes (Verma, Choudhary, & Gupta, 2021) [5]. By offering structured legal assistance, the chatbot serves as an educational tool and a preliminary support system for those seeking justice.

In addition to providing information, the chatbot will function as a virtual guide, walking users through the reporting and legal processes associated with domestic violence and land disputes. Given that both issues often require legal intervention, the chatbot will ensure that users understand their options and have access to the appropriate authorities, advocacy groups, and legal aid organizations. The system will also facilitate links to community support groups, enabling individuals to connect with others who have faced similar challenges and find emotional and psychological support.

By leveraging AI-driven conversational interfaces, this project aims to create a tool that enhances access to justice and support systems, particularly for vulnerable populations. In many cases, individuals affected by domestic violence or land grabbing may not have immediate access to legal experts or social workers. Through its user-friendly design and accessibility, the chatbot will

act as a first point of contact, providing timely, relevant, and actionable guidance. Its implementation has the potential to make crucial support services more readily available, ensuring that individuals in distress can receive the help they need without unnecessary delays (Sharma, Verma, & Singh, 2023) [3].

Ultimately, this project seeks to demonstrate how AI can be used for social good, extending beyond commercial applications to address pressing human rights issues. By integrating the latest advancements in conversational AI and legal assistance frameworks, the chatbot will serve as a vital tool for individuals seeking guidance, protection, and legal recourse. This initiative reflects the growing role of AI in social welfare, showcasing how technology can be leveraged to provide meaningful and impactful solutions to real-world problems.

II. LITERATURE REVIEW

Artificial intelligence (AI) is changing how people access legal and social assistance, making it easier and faster to get the help they need. One of the most promising advancements in this area is AI-powered chatbots, which act as virtual assistants to guide individuals through complex legal and social issues. These chatbots provide immediate, automated assistance, ensuring that users receive timely and relevant information without needing to wait for human intervention. Studies have shown that AI-driven legal chatbots have made legal help more accessible, especially for people who struggle with financial limitations, lack awareness of their rights, or find it difficult to connect with legal experts (Gupta, Sharma, & Mehta, 2021) [1]. By using Natural Language Processing (NLP), these chatbots can understand user queries, determine intent, and provide helpful responses tailored to each situation.

Chatbots are already being used to educate the public about their rights and assist with legal procedures. Research indicates that legal chatbots can help people navigate court processes, draft legal documents, and understand the legal actions available to them (Verma, Choudhary, & Gupta, 2021) [5]. In cases involving domestic violence and land disputes, these chatbots serve as a critical first step for individuals seeking guidance. Many victims of domestic violence or land grabbing may not know where to turn, and chatbots can provide confidential support, legal resources, and step-by-step instructions on how to proceed

(Anderson, Lewis, & Martin, 2020) [4]. The ability of these chatbots to operate around the clock ensures that users receive assistance whenever they need it, reducing the pressure on human legal aid workers and social service providers. For domestic violence victims, chatbots can be a lifeline. Domestic violence is a widespread issue, and victims often face fear, shame, or logistical challenges that prevent them from seeking help. Research on AI-driven support systems for domestic violence shows that chatbots can assess the level of risk, offer safety planning tips, and connect individuals with emergency services, shelters, and legal aid (Anderson, Lewis, & Martin, 2020) [4]. These chatbots provide a private and judgment-free space where victims can get information and guidance without feeling exposed or pressured. Some advanced chatbots can even analyze users' responses and detect distress signals, offering recommendations that increase the chances of victims taking necessary steps toward safety.

Similarly, chatbots are proving useful in resolving land disputes, particularly cases of land grabbing. Land grabbing—where land is illegally taken from rightful owners—is a serious issue that disproportionately affects vulnerable communities. Many people facing land disputes struggle to understand legal procedures or lack the resources to hire legal professionals. Research suggests that AI-driven legal chatbots can assist users by explaining property laws, helping them identify their legal rights, and guiding them through the process of filing complaints (Sharma, Verma, & Singh, 2023) [3]. Some AI systems can even analyze past cases to predict possible outcomes, allowing users to make better-informed decisions about their legal options (Verma, Choudhary, & Gupta, 2021) [5]. By providing structured legal information, chatbots empower individuals to take action without relying solely on expensive or hard-to-reach legal services.

AI-powered chatbots are also being used in crisis intervention. Studies have found that chatbots designed for crisis support can handle sensitive conversations while ensuring user privacy and anonymity (Brown, Patel, & Kim, 2022) [2]. By analyzing the language and emotional tone of user responses, these chatbots can recognize when someone is in distress and provide appropriate guidance. This is especially beneficial for people living in remote areas or those who have limited access to legal professionals and social workers. With their ability to quickly assess and respond to crisis situations, AI chatbots are becoming an essential tool for expanding access to justice and support services.

Despite their advantages, AI chatbots are not without challenges. One major concern is ensuring that these systems protect user privacy, especially when dealing with sensitive topics like domestic violence and land disputes. Researchers emphasize that strong security measures must be in place to prevent unauthorized access to user data (Sharma, Verma, & Singh, 2023) [3].

Another challenge is improving the accuracy of chatbot responses. While AI has advanced significantly, chatbots can still misunderstand context or provide incorrect legal information. This means that while chatbots can be a valuable first step, they should complement, not replace, human legal and social service professionals.

Overall, AI-powered chatbots have the potential to transform access to legal aid and crisis support, making critical information more accessible and user-friendly. By leveraging AI's ability to analyze conversations, understand user needs, and provide real-time assistance, chatbots can help people navigate difficult situations with greater confidence. This project builds upon existing research to develop a chatbot specifically designed to distinguish between domestic violence and land grabbing, ensuring that individuals receive the right kind of support for their unique circumstances. By combining technology with social impact, this chatbot aims to bridge gaps in legal and crisis assistance, making help available to those who need it most.

III. EXISTING APPROACHES

When it comes to handling legal inquiries, people often rely on a variety of approaches. The most traditional option is hiring a lawyer, which offers expert, personalized advice but can be expensive and time-consuming. For those who can't afford a lawyer, legal aid programs provide free or low-cost assistance, though these services are often limited by long wait times and geographic availability. Online legal services, like LegalZoom, offer affordable solutions for common tasks such as creating documents or contracts, but they lack the personalized guidance of a lawyer and may not always be accurate. More recently, AI-powered legal chatbots have emerged, providing instant, cost-effective answers to basic legal questions and helping with tasks like document generation. However, while these chatbots are convenient, they can't replace the nuanced judgment and expertise that human lawyers bring to complex legal situations. Additionally, public forums and legal information websites can offer general advice, but they don't always address the specific needs of an individual case. Each of these methods has its own strengths and limitations, making it important to choose the right approach depending on the situation.

IV. METHODOLOGY

Frontend Development:

HTML: Structured the chatbot interface and embedded it within the UI of the chatbot

CSS: Styled the chatbot accordingly to ensure responsiveness across devices.

JavaScript: Enabled interactivity, real-time updates and functions.

React.js: frontend framework for building dynamic, responsive web applications that allow real-time communication with the chatbot.

Backend Development:

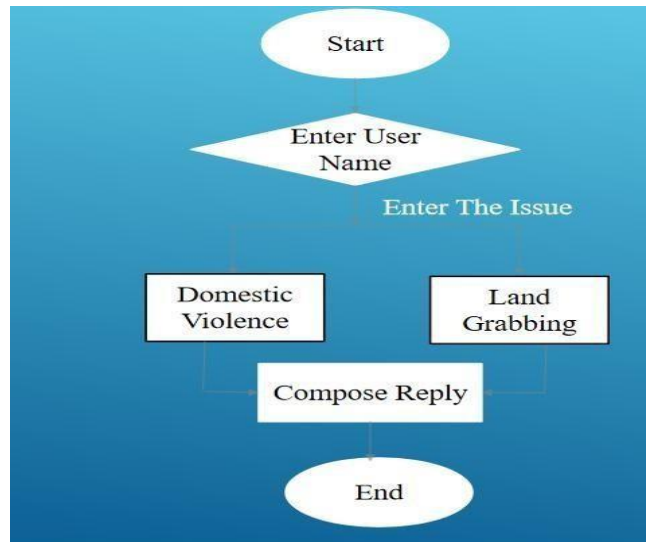
Java: The programming language that is used in the chatbot.

Spring boot: Spring Boot is a framework built on top of Spring, a popular Java framework. It's designed to make it easier and faster to develop applications.

Natural Language Processing: NLP is a technology that helps computers understand, interpret, and respond to human language, whether written or spoken.

Development Environment:

VS Code: For developing the User Interface of the chatbot. **Apache Netbeans:** Developing the backend of the chatbot and also connecting it to the frontend.



V. RESULT

The result of a legal chatbot is a significant step toward making legal assistance more accessible, affordable, and efficient. By using AI and natural language processing, the chatbot can instantly respond to common legal queries, helping users better understand their rights and the legal processes they may need to follow. For example, it can provide guidance on issues like land disputes or domestic violence, explaining key legal terms and steps someone might take to protect themselves or resolve the issue.

One of the main benefits is that it's available 24/7, so users can get immediate support whenever they need it, without the hassle of waiting for an appointment with a lawyer. This is especially helpful for those who can't afford traditional legal services, as the chatbot offers free or low-cost access to important legal information.

While the chatbot can't replace a real lawyer for more complex legal situations, it acts as a first step in providing clarity and direction. It can help users navigate the often confusing world of law by guiding them through legal jargon, offering document templates, or directing them to appropriate legal resources and authorities. In the end, the chatbot empowers people by making legal help more readily available, helping them feel more informed and confident in taking the next steps toward resolving their issues.

The chatbot asks questions to understand whether you're facing domestic violence or land grabbing. If it's domestic violence, it offers resources for safety and support. If it's land grabbing, it provides legal advice. The chatbot ensures you get the right help based on your situation, whether urgent or not. The chatbot is here to listen and help. It asks questions to understand if you're dealing with domestic violence or land grabbing. If you're in danger at home, it guides you to safety resources. If you're facing land issues, it gives legal advice. Either way, it ensures you get the right support for your situation.

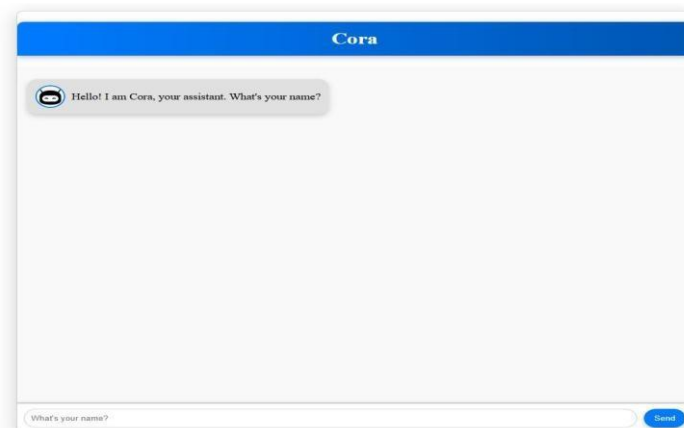
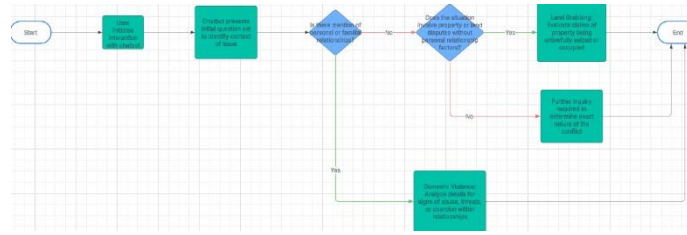


Fig.2 Presentation of the legal chatbot



VI. CONCLUSION

In conclusion, a legal chatbot is truly a gamechanger when it comes to making legal help more accessible and affordable. It breaks down the barriers that many people face, like high costs, long wait times, and the confusion of legal language. With 24/7 availability, users can quickly get answers to their legal questions, understand their rights, and figure out what steps to take—whether it’s dealing with land disputes, domestic violence, or other common legal issues.

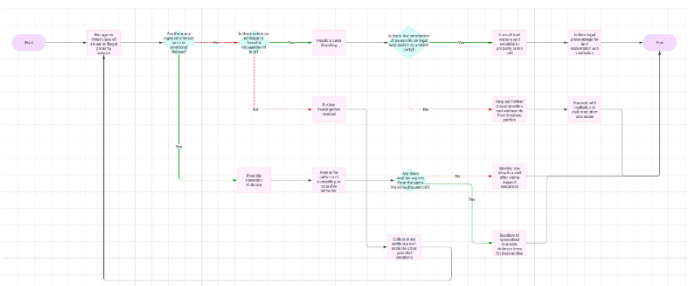
The chatbot makes complex legal concepts much easier to understand, translating legal jargon into plain language, and walking users through processes like filing complaints or finding important legal documents. This is especially helpful for people who can’t afford a lawyer or aren’t sure where to go for help. It gives them a place to start, empowering them to take action and make informed decisions.

While it can’t replace a lawyer for complicated cases, the legal chatbot acts as an invaluable first step, offering support when it’s needed most. It helps people understand their situation better, giving them the confidence to either handle things on their own or seek professional help. Ultimately, legal chatbots help level the playing field, ensuring that more people can get the legal guidance they need, no matter their circumstances. With more advancements in AI, the potential for these tools to make legal support accessible to everyone is truly exciting.

This chatbot is designed to help by understanding your situation. It asks simple questions to figure out if you're dealing with domestic violence or land grabbing. Based on your answers, it offers the right kind of support— whether that's safety resources for abuse or legal advice for property issues. It ensures you get the help you need, quickly and effectively, in a way that’s tailored to your situation.

FUTURE UPDATION

1. Better Language Understanding
2. Smart Questioning
3. Learning from Cases
4. Follow-Up & Context
5. Legal & Support Resources
6. Cultural Sensitivity
7. Voice and Visual Input
8. Escalation to Experts
9. Privacy & Anonymity
10. Detecting Risk



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