# Artificial Intelligence-based Legal Application for Resolving Issues Related to Live-In Relationship

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## Abstract

INTRODUCTION: The societal landscape in India has witnessed a very transformative shift in the perspectives on relationships, with an increasing prevalence of live-in couples challenging the traditional norms of marriage. However, this ongoing trend has brought about a huge surge in legal complexities, including recognition, partner rights, property disputes, and inheritance issues. This study proposed an innovative approach that leveraged the potential of Artificial Intelligence and Automatic speech recognition for the registration and redressal of live-in relationship matters.

OBJECTIVES: This research explores and seeks for the optimization of the resolution of live-in relationship disputes which occurs in the legal perspective with the help of an AI-based platform. The primary goal of this research was to overcome the physical barriers while ensuring the correct accessibility to legal procedures for the registration and addressing of the grievances related to live-in relationships.

METHODS: Here, the methodology followed, starting from the thorough review which was conducted using different resources from Scopus, PubMed, and ResearchGate. This research explored the increasing complaints and varying victim counts in live-in relationship cases. This finally attributed to these issues to a lack of physical access to legal remedies.

RESULTS: This study also emphasized the major significance of AI-driven redressal processes in the real-time alleviation of the hurdles and challenges associated with live-in relationship cases. The proposed framework and platform aimed to offer an alternative means for the individuals who were unable to physically approach the authorities, facilitating a more efficient and seamless way of legal resolution more quickly.

CONCLUSION: This study advocates for the integration of AI and AST technologies in the legal domain, specifically for addressing live-in relationship issues. The implementation of such a system had the potential to bridge gaps in its accessibility, thereby contributing to a more inclusive and efficient legal framework for individuals who are passionately involved in live-in relationships.

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## 1. Introduction

In a live-in relationship, two people decide to cohabitate for an extended period or indefinitely while continuing to have a close emotional and sexual connection. It is "an association of two heterosexual couples living together for some time or permanently without actually getting married to accompany each other for child procreation, for cohabitation, for love and affection for each other, or any other cause," according to the definition. While neither partner has any rights or obligations, the arrangement mimics a marriage-type partnership between two people living together. Because neither party is legally required to remain in the partnership, this kind of relationship is also known as a walk-in and walk-out relationship. Although cohabitation is neither sinful nor wrong, it is occasionally looked down upon in Indian culture. In a nation like India, where marriage is regarded

as the cultural foundation for legalizing a man-woman connection, the concept of a live-in relationship has given the man-woman relationship a new depth. The prerequisites for being in a relationship are that the partners must present themselves to others as being similar to spouses, be of legal marriageable age, be eligible for a legal marriage (even being single), and have willingly cohabited for some time.

The Supreme Court of India considered the situation of the woman in a live-in relationship, her rights and entitlements, and her legal standing to sue the male in court in the Indra Sarma v. V. K. V. Sharma AIR 2014 SC 309. In this ruling, the court established stringent standards to assist in determining whether a given live-in relationship meets the criteria for a "relationship like marriage." These areas are as follows.

1. In line with Section 2(f) of the DV Act, "at any point of time" refers to a period that is reasonable to maintain and continue a relationship, which may vary from case to case. Violence is an act of brutality that should always be considered inhumane.[2]

2. The word "shared household" is defined under Section 2(s) of the DV Act.

3. Resource sharing and financial agreements: To maintain their relationship over the long term, they must assist each other financially.

4. Domestic arrangements: giving the woman the responsibility of managing the household.

5. Sexual Relationship: Interactions that have a sexual component but also fulfill other functions, such as childbearing and emotional support.

6. The existence of kids is a reliable sign of a committed union, like a marriage.

7. Public relations: They must present themselves as husband and wife and engage in social interactions with friends, family, and others as such.

## 2. Laws Governing Live-In Relationships

The traditional culture, lofty moral principles, and honesty of India are highly renowned. Marriage, the holy union of a man and a woman, is one of the most prized partnerships in this country. The Committee on Reforms of the Criminal Justice System (Mallimath Committee), which was established in November 2000, advocated amending Section 125 of the Criminal Procedure Code, 1973's definition of wife to include "woman living with the man like his wife" so that even a woman in a live-in relationship with a man would be eligible for alimony. Following the recommendations of the Malimath Committee, the State Government of Maharashtra began an unsuccessful attempt to change Section 125, bringing the issue of the legal standing of live-in relationships into the public eye. The law should be stringent to curb the menace created by the use of violence in such relationships. [3] The media today shows live-in relationships and visualizes this relationship as an alternative to marriage which the youth find very appealing and redefines the concept of marriage. [4]

The Indian Evidence Act of 1872's Section 114 also establishes a presumption in favor of heterosexual couples cohabitating as husband and wife. It states that the court may establish a presumption of marriage by assuming the occurrence of any fact that it deems probable to have happened while considering the circumstances of a particular case, [5] the normal course of human behavior, natural events, and public and private business. The legal position of such inheritance rights of such live-in partners and the rights and liabilities of each party should be laid down. [6]

The Indian Parliament passed the Protection of Women from Domestic Violence Act, of 2005, which addresses the societal phenomenon of live-in relationships that have grown in our country. It is recognized as India's first law to recognize adult heterosexual partnerships outside of marriage. Even if it's still unusual in our country, this unique idea of partnerships occasionally pops up in big, cosmopolitan cities. The judiciary has regularly stepped in and acknowledged these partnerships when interpreting the term Section 2(f) of the aforementioned Act, which defines "Relationship like Marriage." This is because of the changed social atmosphere in India. Sec. 2(f) of the Act of 2005 defines a "domestic relationship" as a bond between two people who currently live together or have in the past shared a home and are related through consanguinity, marriage, or a relationship analogous to marriage, adoption, or are family members. The use of violence disturbs the peace in such relationships which needs to be protected by law. [7] Therefore, the Act safeguards women in null or voidable unions where all other conditions of matrimony are met, as well as those wed by personal law or the Special Marriage Act of 1954 and those in cohabitation or live-in partnerships. Relationships are based on trust, loyalty, and mutual respect they should be protected according to caste and religious matters related to marriage and divorce. [8]

Because there is no clear social or legal classification of extramarital relationships, even the highest judicial functionaries have permitted themselves to lecture about the necessity to distinguish a "relation like marriage" from that with a "servant" or a "keep" and a "one night stand". In the absence of a definition of "relationship like marriage" by the government, the Supreme Court will struggle to interpret it.[9]

In M. Palani v. Meenakshi [10], the Madras High Court ruled that the DV Act does not require both parties to reside together or have lived together for a specific amount of time or a few days. Women are allowed to keep their application for maintenance as long as they share a home, at least during their voluntary sexual encounters. In this instance, the petitioner and respondent had consensual relations, but there was no agreement that he would wed her. In Varsha Kapoor v. U.O.I. & Ors (2015 CrLJ195), the Delhi High Court declared that a woman in a marriage-like relationship has the right to file

a case not only against her husband or male partner but also against other women.

## 2.1 Statistical Data Related to Live-In Relationship

The current study examines individuals' attitudes toward live-in relationships. The results will show us the various perceptions of people which may be positive or negative helping us to better understand the concept to develop new laws. It will also help us to know whether people give greater weight to Indian culture and societal standards or not. This will further help us to gain a fresh perspective on how individuals see intimate relationships and their nature. To have insights into such information we require a detailed analysis of the perception of people about live-in relationships in India. [11]

To assess how differently people perceive live-in relationships in India. To gather primary data from the respondents, a self-designed, pre-tested questionnaire has been used. Only 500 of the original 700 surveys that were given out contained the respondents' usable answers. The study only employed about 500 questionnaires; the remainder were discarded due to participants' non-responsiveness and inadequate data entry, yielding a response rate of 71.42%. 1 denotes "Yes," 2 denotes "No," and 3 denotes "can't say."

**Table 1:** Awareness percentage among people about live-in relationship

| | | Freque ncy | Percent | Valid Percent | Cumula tive percent |
|---|---|---|---|---|---|
| Valid | 1 | 462 | 92.4 | 92.4 | 92.4 |
| | 2 | 34 | 6.8 | 6.8 | 99.2 |
| | 3 | 4 | .8 | .8 | 100.0 |
| | Tot al | 500 | 100.0 | 100.0 | |

Table [1] shows the real-time data of awareness of live-in relationships: The Respondents were mainly asked on a scale of 1=Yes, 2=No, and 3=Can't say about the awareness of live-in relations, (n=450) of the respondents were yes (n=30) of the respondents were not aware, (n=20) of the respondents can't say anything about the relationship.
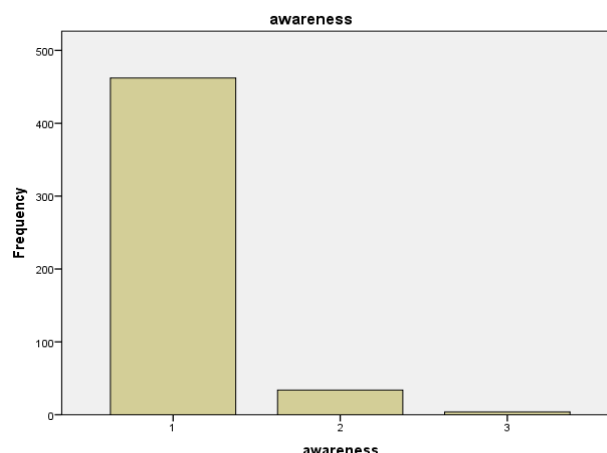


**Fig 1.** Shows about awareness about live-in relationship

Have you heard about live-in relationships?
This question measures the awareness level of people about live-in relationships in India as shown in Fig. [1]. This helps us to understand the level of knowledge about this concept among society members. The result shows that 92% of people are aware and only 1% unaware which is relatively high on the awareness level.

**Table 2:** Percentage of people meeting the persons living in a live-in relationship

| | | Freque ncy | Percent | Valid Percent | Cumula tive percent |
|---|---|---|---|---|---|
| Valid | 1 | 321 | 64.2 | 64.2 | 64.2 |
| | 2 | 165 | 33.0 | 33.0 | 97.2 |
| | 3 | 14 | 2.8 | 2.8 | 100.0 |
| | Tot al | 500 | 100.0 | 100.0 | |

Table [2] shows the real-time data of percentage of people meeting a person who is living in a live-in relationship: The Respondents were asked on a scale of 1=Yes, 2=No, and 3=Can't say about meeting a person who is already in a relationship, (n=350) of the respondents were yes, (n=100) of the respondents were no aware, (n=50) of the respondents can't say anything about the relationship.
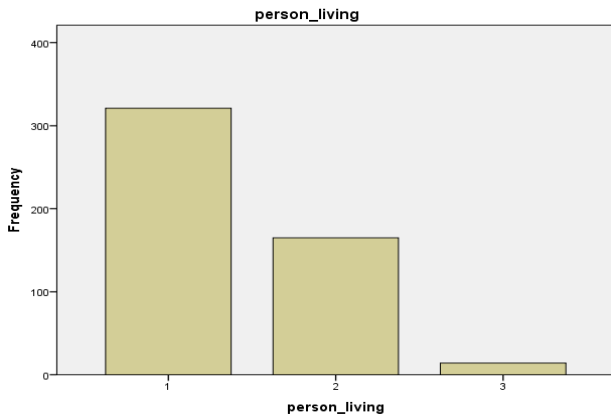
**Fig 2.** Shows people living in a live-in relationship

Have you met a person who is living in a live-in relationship?

This question relates to the "person living" in a live-in relationship as shown in Fig. [2] and also helps us to determine the number of people opting for a live-in relationship. This helps us to know the increasing number of people going for live-in relationships.

## 2.2 Challenges faced by the victims of live-in relationship

In the world of males, a relationship's love and violence are entwined with the customs and morality that enslave women. In a patriarchal society, women bear the duty of maintaining the honor codes of the family and society, as well as the associated shame, respect, and guilt, whereas no comparable social, legal, or moral norms are created for males. In a patriarchal society, women are infantilized; their agency and persona are reduced; and males make the decisions that affect their lives.

## 3. Framework for AI-based technology Legal Application

## 3.1 Fundamentals of AI

It is no longer speculative or science fiction to pursue new scientific study fields that develop and employ human intelligence. Innovative concepts and sage advice are used by modern scientists from throughout the world to cultivate this paradise of wisdom. They started concentrating on the design and development of robots, fusing hardware and software tools to imitate human intellectual behavior using computing and artificial intelligence. [12]

## 3.2 Fundamentals of Machine Learning

Machine learning (ML) refers to techniques for teaching computers or for automating computer learning

from input data or information. Different machine learning techniques are derived from nature and adhere to the biological learning principle. The real-world uses for machine learning are expanding quickly and unknowingly affecting us every day. Manufacturing and other industrial sectors have been implementing ML in their facilities successfully. The speed of applying ML in key sectors will only go up with the introduction of the idea of Industry 4.0. [13].

Fundamentals of Automated Speech Recognition (ASR): The method through which a computer (or other sort of machine) recognizes spoken words is called speech recognition. Essentially, it refers to speaking to your computer AND having it understand you. Systems for recognizing speech might be discrete or continuous, speaker-dependent or speaker-independent. Isolated word speech recognition (ISR), a technique used by discrete systems, maintains a distinct acoustic model for each word, phrase, or combination of words. A user can activate the continuous speech recognition (CSR) system by pronouncing words, phrases, or sentences in a certain order.[14].

### Natural Language Processing (NLP)

NLP techniques are very crucial for the understanding of legal documents, extracting relevant information, and providing meaningful responses. The suitable algorithms for this consist of Named Entity Recognition (NER), Text classification, and Sentimental Analysis. Among these, NER will be the most perfect.

NER is a task in natural language processing (NLP) that involves the identification and classification of entities in text. Conditional Random Fields (CRF) is a very known popular model for NER. Below is the breakdown explanation for the implementation of CRF for NER in a more detailed manner.

**Problem Definition:** Here, input is a sequence of words $x = (x_1, x_2, x_3, ...., x_n)$ which represents a sentence. The output will be a sequence of labels $y = (y_1, y_2, y_3, ..., y_n)$ where each $y_i$ corresponds to the named entity type of $x_i$.

**Feature Extraction:** Here, a set of features is defined for each word in the input sentence. Features help in capturing various linguistic properties of the words. Examples of features include Word identity ($x_i$), Word shape where the capitalization pattern of the word (all uppercase, title case, lowercase), and part of speech tag where the grammatical category of the word comes.

**Feature Function:** Here, each feature is associated with a weight $\lambda$ to determine its importance. Then a feature function is defined as $t(y_{i-1}, y_i, x, i)$ that calculates the score for a given label sequence and input sequence. The score $s(y, x)$ for a particular sequence is given in the input x is the sum of the weighted feature values as in Eq. [1].

$$s(y, x) = \sum_{i=1}^{n} \sum_{j=1}^{m} \lambda_j t(y_{i-1}, y_i, x, i)$$

**Equation 1.** Feature function as a sum of weighted feature values

**Transition features:** Here, transition features are included to model dependencies between different adjacent labels. The transition features captured the likelihood of transitioning from one label to another. Here, also each transition feature has a weight $\alpha_k$. The transition feature is a function of the labels and input at positions (i-1) and i as in Eq. [2].

$$t(y_{i-1}, y_i, x, i) = \sum_{k} \alpha_k . tfk(y_{i-1}, y_i, x, i)$$
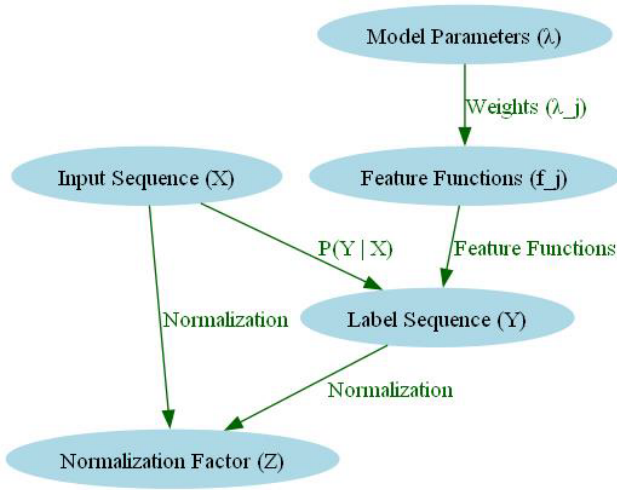
**Equation 2.** Transition feature function



**Fig 3.** Diagrammatic representation of Conditional Random Fields (CRF)

In this Fig [3], X (Input Sequence) represents the input sequence of words in a sentence. Y (Label Sequence) represents the sequence of labels assigned to each word in the input sequence. These labels corresponded to the named entities. $\lambda_j$ denoted in this represented the model parameters (weights). Feature functions are denoted by the full function of $f_j$. These functions capture the relationships between different input features, labels, and positions in the sequence. Z is the normalization factor, which ensures that the probabilities sum to 1 over all the possible label sequences.

## Automated Speech Recognition (ASR)

Here, in this context, Automated Speech Recognition is essential for the conversion of spoken words into text, which ultimately enables users to interact with the system through speech. Suitable algorithms like Hidden Markov

Models (HMM), which are traditional but effective for modeling sequential data in speech, and deep learning models such as DeepSpeech, where neural networks are used to full potential for end-to-end speech recognition.
Hidden Markov Models (HMMs) are very commonly used in speech recognition, and the fundamental formulas for an HMM always involve the probabilities of transitions and emissions. The breakdown approach for the equations and formulas for the successful implementation of Hidden Markov models are described below in Eq. [3], [4], [5].

**State Transition Probability:** Here, the probability of transitioning from one hidden state $q_{t-1}$ to another hidden state $q_t$ at time t is represented. In this context of speech recognition, the hidden states might represent the phonemes or sub-word units. The equation for this state is described in Eq. [3].

$$A(i, j) = P(q_t = j | q_{t-1} = i)$$

**Equation 3.** Matrix representation of probabilities transitioning from state i to state j

**Emission Probability:** Here, the probability of observing the output symbol $o_t$ given the current hidden state $q_t$ is shown. In the context of speech recognition, the output symbols correspond to the acoustic observations, such as spectral features extracted from the audio. The matrix representation is shown in Eq. [4].

$$B(j, k) = P(o_t = k | q_t = j)$$

**Equation 4.** Matrix representation of probabilities emitting observation k given the current state j

**Initial State Probability:** Here, the probability of starting in the particular hidden state $q_1$ at the beginning of the sequences is represented. The initial state vector representation is shown in Eq. [5].

$$\pi(i) = P(q_1 = i)$$

**Equation 5.** Vector representation of probabilities of starting in each hidden state

In the field of speech recognition, the ultimate goal is to find the most likely sequence of the hidden states given the observed sequence of acoustic features. The forward-backward algorithm and the Viterbi algorithm are most commonly used to compute the probabilities and find the most likely state sequence, respectively, in the context of HMMs.
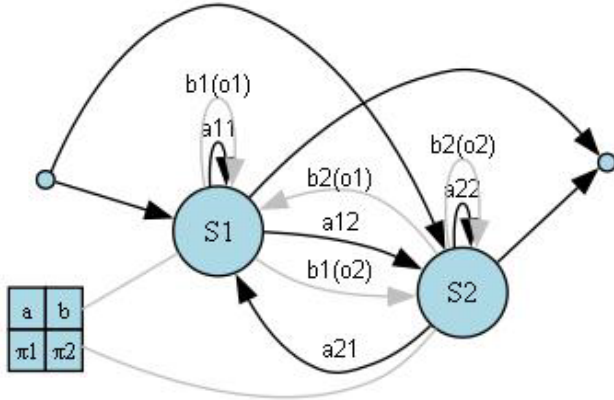
**Fig 4.** Basic representation for transitions and emissions in HMM

Here in Fig. [4], the nodes 'S1' and 'S2' represent the hidden states in the HMM. The start and end nodes where 'start' and 'end' would indicate the start and end of the HMM. The transitions arrows between states ('S1' to 'S2') would represent the state transitions with transitional probabilities ('a11', 'a12', 'a21', 'a22'). The emission probabilities are represented as gray labels ('b1(o1)', 'b1(o2)', 'b2(o1)', 'b2(o2)') on edges, indicating the particular probabilities of the emitting of observations ('o1' and 'o2') from states. The initial probabilities are shown as a table labelled 'n1' and 'n2' which indicates the initial state probabilities.

### Issue Resolution (Decision-Making)

For the seamless and efficient resolution of legal issues related to live-in relationships, the decision-making algorithms are of topmost priority. The most suitable algorithms in this aspect are Decision Trees, which can structure decisions based on different legal criteria, Support Vector Machines, which can be useful for classification tasks related to various legal outcomes, and Rule-based systems, which implement if-then rules for guiding the decision-making process.

**Decision Trees:** Decision Trees are a very popular machine learning algorithm used for both classification and regression tasks. In this context of issue resolution, a decision tree could be employed to make the decision based on the legal criteria and features.

Its key components include Nodes, Edges, and Attributes. A complete decision tree consists of nodes, including root notes, internal nodes leaf nodes, and internal nodes representing a decision based on a specific feature or attribute. The edges connect the nodes and represent the outcome of a decision based on the condition of an attribute. Each internal node in the tree corresponds to an attribute, and the edges represent the conditions on that attribute as in Fig. [5].
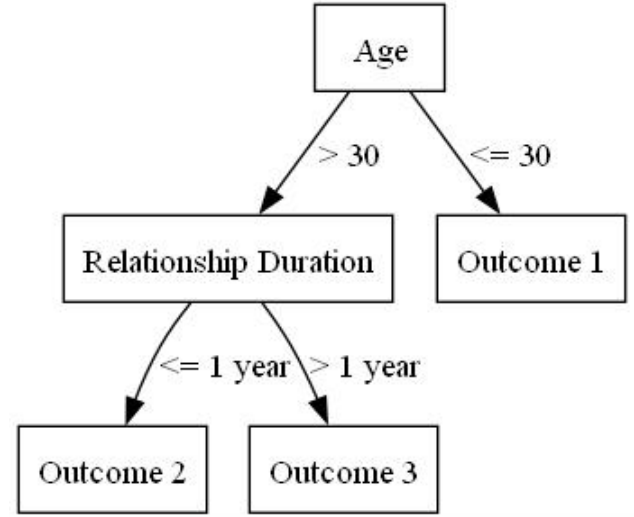


**Fig 5.** Basic implementation of the decision tree in decision-making from a legal aspect.

The below equations will give a complete understanding of the implementation of the decision tree in this legal decision-making system.

Entropy: Entropy is the measure of impurity or disorder in a set of data. The equation for entropy is given in Eq. [6].

$$H(S) = -\sum_{i=1}^{c} p_i . log_2(p_i)$$

**Equation 6.** Equation for entropy

Where S is the set of data, c is the number of classes in the dataset, and $p_i$ is the proportion of data belonging to class i.

Information Gain: Information gain measures the effectiveness of the attribute in the classification of data. The formula for this is given in Eq. [7].

$$IG(S, A) = H(S) - \sum_{v \in Values(A)} \frac{|S_v|}{|S|} . H(S_v)$$

**Equation 7.** Equation for Information gain.

The entropy of the set measured the impurity. A set is pure if all the instances belong to the same class (entropy = 0), and it would be more impure if the instances were evenly distributed among the classes (higher entropy). The information gain quantified the improvement in the achievement of purity achieved by splitting data based on specific attributes. The attributes with the highest information gain were chosen as the decision criterion at a particular node.

**Support Vector Machines:** Support vector machines aimed to find a hyperplane that best separated the different classes in the feature space. In this context of issue resolution, the classes could not represent the different legal outcomes or categories. The decision function for SVM is used to classify the new input into one of the predefined classes. It was first based on the concept of a hyperplane in a high-dimensional space. It will be further defined with the formula for decision function in Eq. [8].

$$f(x) = sign(\sum_{i=1}^{N} \alpha_i y_i K(x, x_i) + b)$$

**Equation 8.** Decision function for a new input x in SVM

Here, f(x) represents the output of the decision function for input x. The sign function ensures that the output is mapped to the class labels. The summation function is the inner product of the input x with the support vectors $x_i$, each weighted by $\alpha_i y_i$. $\alpha_i$ are the Lagrange multipliers, and $y_i$ is the class label of the i-th support vector. $K(x, x_i)$ is the kernel function, which computes the similarity between the x and with support vector. N represents the number of support vectors, which are the most critical data points for hyperplane definition. B is the bias term, also known as threshold which helps in the shifting of decision boundary away from the origin. The total implementation of SVM is shown in the diagrammatic view in Fig. [6].
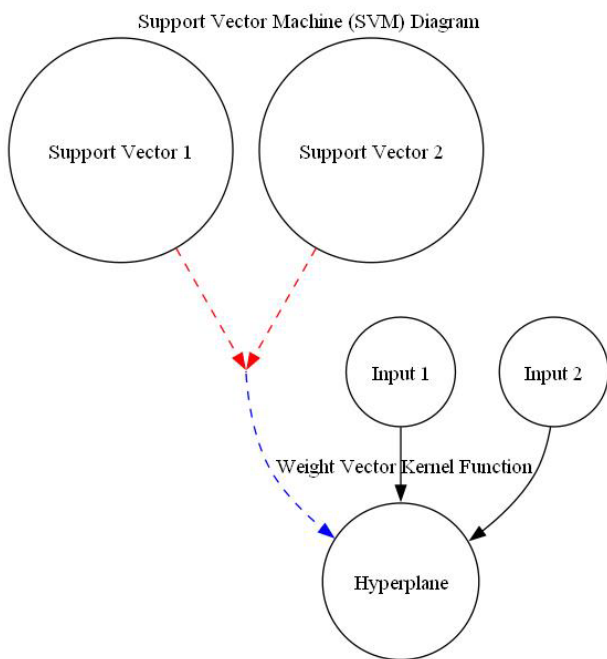


**Fig 6.** Linear Kernel for binary classification using SVM

Here, in Fig. [6], the support vectors ('sv1' and 'sv2') represent the crucial data points that defined the decision boundary. The decision boundary ('boundary') is represented by a dashed line. In reality, it's a hyperplane that is used for the maximization of the margin between the classes. The Hyperplane ('hyperplane') is the decision boundary for the separation between different classes. The inputs ('input1' and 'input2') are the sample input points that are needed to be classified.
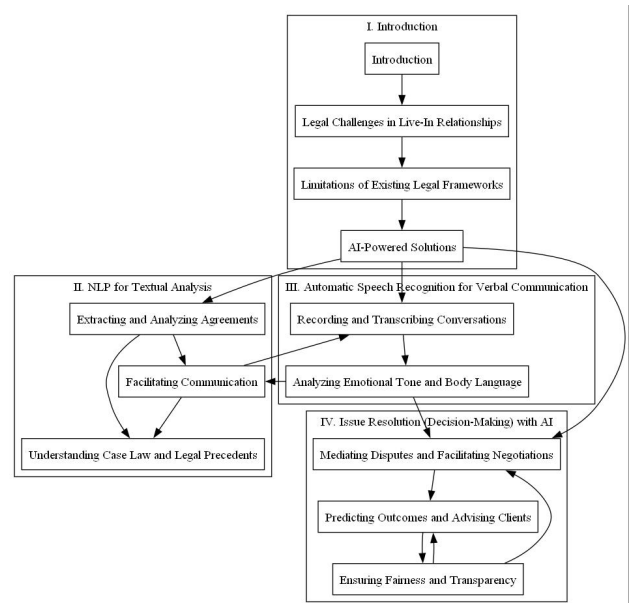


**Fig 7.** Diagrammatic view of how artificial intelligence and machine learning will be implemented in the Legal Application for Resolving Issues Related to Live-In Relationships.

Here, in Fig. [7], this highlighted the increasing prevalence of live-in relationships and the legal challenges they faced. This emphasized the limitations of existing legal frameworks and established the need for AI-powered solutions. NLP is applied here to process various textual documents such as cohabitation agreements, messages, and emails. The key terms, clauses, and potential conflict areas are also identified. The sentimental analysis is also used to gauge the emotional undertones and intentions behind the text. NLP was employed to analyze the legal documents, judgments, and expert opinions. The relevant legal principles are also extracted and applied to their specific live-in relationship case. The gaps or inconsistencies in the existing laws are also identified for further consideration. NLP was utilized for the generation of clear and concise legal summaries for non-legal users. The chatbots are also enabled to answer basic legal queries guide users through the legal process and guide users through the legal processing. Spoken agreements, meditations, and testimonies are also converted into text using Automatic Speech Recognition (ASR). The accuracy and context-awareness of the transcriptions are also ensured and the inconsistencies or

discrepancies between spoken and written statements are identified. The signs of distress, manipulation or coercion in the verbal interactions are also detected. The valuable insights are also provided for lawyers who are involved in the building of the case. AI-powered chatbots are also developed for the mediation of disputes between the partners. Suggestions for fair and amicable settlements are also offered based on the analyzed data. The repetitive tasks like document generation and legal research are also automated. The AI models are also trained on past legal cases and live-in relationship data. The potential legal outcomes are also predicted based on the specific circumstances. The informed advice is also provided to the other clients regarding their rights and options with choices. Explainable AI (XAI) was implemented to make decision-making processes transparent. Also, regular audits and updates of AI models are also performed to prevent bias and discrimination. The human oversighting and accountability are also emphasized in critical decisions.

## 3.3 Fundamentals of Global Positioning System (GPS)

The usage of satellite navigation has spread around the world and has become a crucial component of our contemporary culture. [15] The U.S. Department of Défense created and maintains the satellite-based radio navigation system known as the Global Positioning System (GPS). This free service offers precise position, velocity, and time data to as many land, sea, air, and space users as are equipped with the necessary equipment.

## 4. AI in the Legal Field

The history of artificial intelligence and law dates back a few decades. In researching the potential applications of computers in the legal profession, we have come a long way. In-depth research has produced a diverse range of findings.[16] Artificial intelligence (AI) refers to a computer or a robot controlled by a computer's capacity to carry out tasks that are typically performed by humans since they call for human intelligence and judgment. The application of artificial intelligence (AI) by lawyers and within the legal sector is only now starting to take off.

## 4.1 Registration of Live-In Partners

The Registration of live-in relationships would lead to accurate information being available to both the live-in partners about each other and also to the government about each of them regarding their marital status, criminal history, and other relevant details. This will not only help the individuals living in such relationships but also the authorities to have data related to such relationships if in case needed the persons can be traced especially in legal matters.

## 4.2 Remedies available to women living in such relationship

There are remedies available to women living in such relationships according to the judicial pronouncement by the Supreme Court as well as the High Courts. Although the remedies are available common people are still not aware of these rights provided to them by the judiciary. Therefore, an attempt has been made through his work to bring about awareness and also to provide a system where people can resolve their issues without going through the hustle and bustle of the legal system through the use of an AI technology-driven legal system.

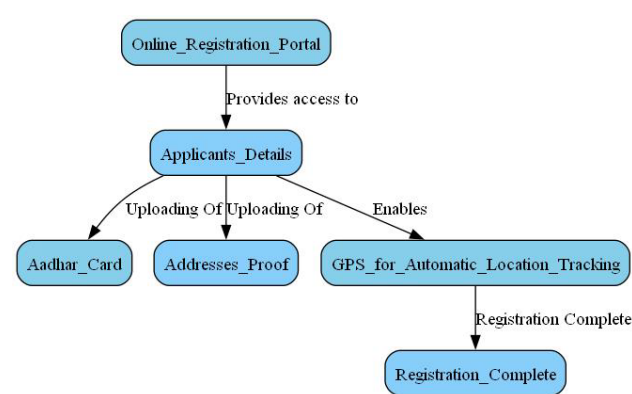### Step 1: Registration of Live-in Couples



**Fig 8.** Shows the proposed AI technology for online registration of Live-In Relationship

Fig. [8] shows the proposed artificial intelligence-based registration process for live-in relationships where a couple who is willing to register their relationship can easily register with the help of the proposed AI-based registration portal. In this process, the applicant willing to register will firstly fill up all the necessary details about his/her identity individually i.e., name of both the individuals, gender, father's name, permanent addresses of both the individuals using the GPS technology the location can be traced to known their native places.
Secondly, uploading of applicants' live facial ID (to verify the intention and approval of the applicant) where they have to upload the documents related to their identity to verify the veracity of their documents through Aadhar card copy, address proof if in case of rented property, a rent agreement and in case of one's property then property details.
Thirdly, the couple has to show their period since then they are living together as live-in couples.
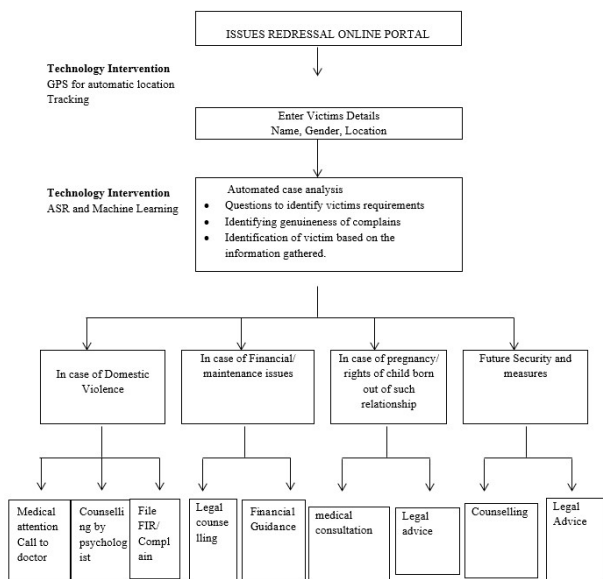
**Fig 9.** Shows the proposed AI technology for different issue redressal online portals.

Fig. [9] is a reflection of the proposed methodology as an overview, of when a person aggrieved or is a victim of living in a live-in relationship can file a complaint with the appropriate legal authorities and receive a sufficient solution. Whomsoever, the victim irrespective of gender could submit his/her name and gender onto this application, and it will employ automatic GPS technology to track their location. For the case analysis, a series of questionnaires will be administered. Questions will be posed to the victim leveraging the potential of ASR (Automated Speech Recognition) and machine learning technology to diagnose the cure the victim needs; with the potential of machine learning, as the validity of the victim's complaint will be analyzed. Following the analysis, the victim will be instructed to use one of the following four remedies: If domestic violence is involved, the victim will also be given three options. e.g., medical attention, counseling, or the filing of an FIR or complaint. If the victim needs medical or counseling assistance, an AI-powered chatbot will be in operation. The chatbot will either schedule a virtual appointment for the victim with a medical or psychiatric professional or send a doctor to the victim's address depending on their situation. If the victim is qualified to use GPS technology to file a First Information Report (F.I.R.) or a court complaint, the F.I.R. or the court complaint will be sent to a police station or court with legal jurisdiction. The researcher has created a flow chart of suggested AI-based applications for a solution to the problems posed by the aggrieved person or a victim, which is shown in Fig. [4]. The victim will then be directed to either consult a legal counsel for information on legal options available to her or seek financial assistance advice from a fiancé expert on how the person can manage or handle financial issues, and in accordance, the chatbot will schedule a virtual meeting for the victim with a legal counsel or finance expert. If the victim is pregnant or there is a question regarding children's rights, the next one can be brought up. Medical aid and legal counsel will be available first, per the two options. The victim has the option of either legal or medical aid depending on their needs. Once more, a chatbot will schedule a virtual appointment for medical or legal aid. Last but not least, if the victim wants to know about her options for future security. She will have two choices: first, a counseling session; second, legal counsel. Once more, a chatbot will be used to book a session based on the victim's preferences. In Fig. [4], the researcher has drawn out a flowchart of suggested AI-based applications for a solution that the victims of such relationships could be able to access.

# 5. Conclusion

The growth is the number of cases aggrieved by living in such relationships is increasing at an alarming rate. Therefore, a system should be developed firstly to register the people who are living in live-in relationships so that it will become easy to identify such people related to it.

In India, where the real functioning of the legal framework has deteriorated and human intervention is still required in the documentation process, it is a worrying truth that the legal system is unable to address the problem of domestic abuse. The logical reasoning and cognitive skills necessary for legal practice cannot be performed without human intervention. Today, however, technology has advanced to the point where machine learning can take the place of humans' cognitive abilities. A victim can simply find the closest hospital with the aid of GPS technology, submit a complaint to the appropriate police station or court that has the necessary jurisdiction, and even get legal counsel or assistance. GPS technology makes it easier to find the appropriate court to file a complaint after visiting the advocate for advice. The statute should be updated with the most recent AI technology to give women prompt recourse without having to physically visit the courts. Most victims of these situations find it challenging to physically convey the incident to any official authorities. Victims can simply describe the occurrence in their own time and space using ASR technology without feeling compelled to do so by the police. Additionally, ASR will assist illiterate victims in understanding the questions and providing responses in the language of their choice. Machine learning will eliminate fictitious instances and reduce the time required by the authorities by only considering legitimate complaints. Additionally, machine learning will identify the victim's genuine wants and present him with solutions that meet those needs. The goal of this legal application is to immediately provide all the services that the victims need without having to physically interact with any governmental entity.

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