USING ARTIFICIAL INTELLIGENCE IN JUDICIARY

FOR ASSISTING WITH SIMILAR CASE OUTCOMES

NATIONAL INFORMATICS CENTRE

AI IN JUDICIARY

What is the problem?	• The **Indian Judiciary** administers a *common law system* of legal jurisdiction. The defining characteristic of "common law" is that it arises as precedent.
Who has this problem?	• If a similar dispute has been resolved in the past, the court is usually bound to follow the reasoning used in the prior decision. Here the stakeholder is Lower Judiciary.
Why should this problem be solved?	• Insight gained from 3 crore Case orders and Judgements lying in unstructured pdfs can help judiciary with case summarization and disposal in a time bound manner.
How will I know this problem has been solved?	• System will provide confidence score of the prediction of the incoming case detail categorization along with a listing of similar case outcomes with their confidence scores.

ENVISAGED SOLUTION

Build language model

- Build Model on large English text corpus like wiki etc..
- It is to be modified with weights using unsupervised learning from legal text corpus
- Machine Translation from Hindi legal case outcomes corpus to English
- Add to the corpus for building language model. Constraint is availability of parallel corpus.

Build classification model

- Use the language model built in previous step
- Use annotated data for training model on prediction of case outcome through classification as can be allowed/ rejected/ partly allowed/ settled with confidence score.
- Constraint will be amount of annotated data available for machine learning.

Build cognitive search

- Build a robust, reliable, fault tolerant, scalable solution that is always available
- Require to build search that uses artificial intelligence to return results that are more relevant to the user and the problem at hand
- Auto text summarization technique which could quickly and accurately summarize voluminous texts

CASE STUDY – MOTOR ACCIDENTS CLAIM PETITION

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Case Details*

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IN THE COURT OF THE CHAIRMAN(M.A.C.T.) III ADDL. DISTRICT
JUDGE, ASIFABAD

PRESENT: K.VENKATESWARLU
CHAIRMAN - CUM-III ADDITIONAL
DISTRICT JUDGE, (M.A.C.T.) ASIFABAD.

submit

Information Extracted from the Document

Petitioner	Respondent
Name: Ade Dattu Age: 26 years	Regional Manager, TSRTC, Adilabad.
Name: Dadi Raghulaiah Age: 27 years	
Name: Kota Vijay Kumar	
Name: Cholamandalam MS General Insurance Company Ltd.	

Similar Case Search Based On Language Modeling

SIMILAR CASE SEARCH – MOTOR ACCIDENT CLAIM PETITION

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Case Details*

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IN THE COURT OF THE CHAIRMAN(M.A.C.T.) III ADDL. DISTRICT JUDGE, ASIFABAD

PRESENT: K.VENKATESWARLU CHAIRMAN - CUM-IIT ADDITIONAL DISTRICT JUDGE, (M.A.C.T.) ASIFABAD.

submit

Similar Case Search Based On Language Modeling

Show 5 entries

Showing 1 to 3 of 3 entries

Search:

filename	victim's age (years)	status	income (₹/month)	predicted	confidence score (%)
kerala/ekmmuvmact/201201009922014_1	30	died	7500	rejected	58.71453881263732
No Compensation or Citation Found					
tamilnadu/cbepdj/231509011722010_4	29	died	15000	rejected	57.28572010993958
rajasthan/ajmrpsc/210600005872016_1	27	died	0	rejected	56.42669796943666

Loss of dependency/Loss of Earnings(Past,Present & Future)(₹)	NA
Hospital, Medical and other incidental expenses (₹)	NA
Compensation(₹)	50000
Interest Awarded (%)	7.5

Citations

- Managing Director,Tamil Nadu Transport Corporation .vs. R. Nadhini
- 2016 (2) TNMAC 179,Baskar .vs. The Superintendent of Police, Namakkal District and 2 others
- CDJ 2013 MHC 4371:2014(1) MLJ 371,New India Assurance Co.Ltd...vs. Saraswathi and 4