

Application of Big Data in Legal Case Investigation

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Abstract-According to the 2020 report of the National Judicial Data Grid, over the last decade, 3.7 million cases were pending across various courts in India, including district, taluka courts and High courts. With the rapid emergence of information Technology and development in recent years. Many criminal cases have become sophisticated and secret. The Conventional investigation method has been very difficult to cater the demands of the times. With the continuous development of big data, it has been used in multiple domains. The following paper reviews the pros of big data and application in legal context.

Keywords-Big data, legal protection, technical support, network security.

I. INTRODUCTION

At present, in the conventional investigation mode, on the one hand, there may be errors and omissions in the collection of case information according to the scene, which affects the understanding of the case. In a study conducted by Gurugram-based School of Law in July 2020, it was found that about 42% of lawyers believed that in the upcoming 3 to 5 years as much as 20 percent of regular, day-to-day legal works could be performed with technologies such as artificial intelligence. The study also found that about 94 percent of law practitioners favoured research and analytics as to the most desirable skills in young lawyers.

Recently in this year, Chief Justice of India SA Bobde, with no uncertain terms, stated that the Indian judicial system must equip itself with incorporating AI in its system, specially for document management and cases of same type. With many organisations and professional sectors embracing AI and data analytics, the judicial court in a limited way is no exception.

A quick look into some statistics gives us a complete picture; we have more than 30 million pending cases at various courts. To add a person who is engaged in law suit, there is shortage of judges as vacancies are not completely filled. District courts have a 21 percent shortfall and High courts have 32 percent fewer judges than they should. India has approximately 11-12 judges per 10 lakh persons, as opposed to the global average of around 50 judges per million. Before some years, a Delhi High Court judge reckoned it would take more than 450 years to clear the backlog given then judge numbers.

In order to address the problem associated with Indian judicial system variety of judicial reforms has been suggested. Some of these suggestions that are there in common discussion are

- Creation of a greater number of fast track courts to quickly resolve the cases.

- Centre has formulated a National Litigation Policy to reduce the cases pending in various courts in India under the National Legal Mission to reduce average pendency time from 15 years to 3 years.

II. THE CONCEPT AND ADVANTAGES OF BIG DATA

Big Data is now a popular term which is used to recent explosion in data, which is fuelled in particular by the universality of the smartphones and internet. Walking to the any stop, writing a movie review, tweeting and liking something on Facebook are all types of informal data streams. Data of all types are produced daily on an unimaginable scale. Old data bring up ideas of surveys and research. The idea is to analyse and use this unprecedented amount of information to innovate and change our world.

1. Advantages in Decision Making:

In judicial system, decision-making is a common method in case investigation and adjudication. Using big data technology, through the data analysis in the legal business, we can understand the law of criminal cases, and then formulate various new solutions according to the outcome of data analysis. For example, in the field of Indian railway transportation, every major incident, the related cases are difficult problems for railway public security and procuratorial work. In some recent years, the period of high occurrence of criminal cases, the railway Advocating body organs have carried out centralized rectification of key lines and stations, analysis and data integration, and achieved good results.

2. Advantages in the trial supervision:

The advantages of big data in trial supervision is that it helps judges in courts declare the most appropriate sentences when going to prior trials of convicts. The correct analysis of all relevant data gathered regarding the accused criminal in a particular case are paid proper attention to. Depending on the degree and nature of the

crime committed, given that the accused is actually found guilty, a just sentence is passed according to context, like imprisonment, bail or custodial remand. Big data can also provide the largest amount of data required in a case, which leads to a fair trial.

3. Advantages in storing criminal records:

Criminal records or the data that have been collected over a long period of time help the police know about crime prone zones. Big data analytics has proven to be a huge boon in this regards as records of criminal activities in the bigger area can be stored in the smaller spaces. This majorly helps police stations that have very big jurisdictions in successfully managing division of labour. Big data can also alert in advance about crime prone zones aids in mitigating unlawful activities to a great extent.

III. APPLICATION OF BIG DATA IN LEGAL CASE INVESTIGATION

1. Fasten Courtroom Procedures:

The available data in the law industry is not very huge, as many types of data are present in large amount and while various procedure of any case new data gets created. In order to utilize that data, it is extremely important for legal firms and law to correctly store, collect, catalogue, and organize all the data so that they can take advantage of all that data at the right time. This data can help in saving the costs in a courtroom as the decisions can be made pertaining to the huge data for reference so this gives us an opportunity to enter the cases based references from anywhere and answer the questions asked in the courtroom with clarity and proof. This will help in making the entire process cost effective and will generate various new insights in the case study based on the previous references.

2. Serves as Evidence:

It is not only the court room process that makes big data and desires to check the info hence created within the legal procedures and hearings, the info collected by other firms and for other purposes may be used. When a conviction happens in an exceedingly court the relevant and related data is presented within the sorts of evidence to come back to a conclusion and provides a just verdict.

The legal procedures are majorly offline in their working but as they slowly and gradually seek to maneuver online they're being equipped with evidence of the identical sort furthermore. The information by various companies which are under the jurisdiction of the general public view is often used as evidence in various hearings. Telephone companies, insurance companies, hospital bills, hotel bills, etc culminate as a part of the evidence in various forms of hearings. Depending upon their requirement they will be called from the massive data collected by these companies

and may help within the courtroom judgment of assorted kinds.

3. Building Client Base:

If a client seeks to try to a proper registry of a property that should be legal paperwork and in some cases licensing is required to work functions smoothly. Not a traditional person can have a knowledge of these things and hence for that, they seek a law expert to urge services from them. There are lots of legal firms and advocates that do public dealing directly on behalf of big businesses and corporations so they will persist to run their business, do property transfer, etc, and other legal functions efficiently with none legal crunch. During this case, big data can help in understanding and curing the previous anomalies relating the previous history and documents of the businesses in addition as of previous such cases.

IV. CONCLUSION

Sensing the requirement of the hour, the Indian judiciary is slowly taking to technology in regular proceedings, virtual courts and hearings being the purpose just in case. It's only time when AI and analytics are actively included within the legal sector. Notably, a bunch of researchers from IIT Kharagpur, by using machine learning techniques, developed a technique to automate written document reading.

The proposition that such technology can replace actual judges and lawyers is simply too far-fetched as critical cases still require to be approached with a particular sense of judgement, conventional wisdom, and humanity which machines currently are unable to supply. While the bar isn't immediately threatened by the appearance of AI, the legal sector still awaits a serious technological overhaul to smoothen the system.

Notably, a Supreme Court committee "National Policy and Action Plan for Implementation of knowledge and Communication Technology within the Indian Judiciary" was formulated in 2005 for greater accessibility. However, the progress has been slow because of resistance from the stakeholders.

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