Prospectus

Improving Data Accessibility for United States Court Cases

(Technical Topic)

Exploring Biases Within the Court System as a Consideration of Defense Attorneys

(STS Topic)

By

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On my honor as a University student, I have neither given nor received unauthorized aid on this

assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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Introduction

The United States court system was well though out to prevent imbalances in power and protect people's right to fair trials. However, implicit and explicit biases and incidental factors have the potential to unjustly shake the outcome of a trial. These can be as direct as racial discrimination by a judge, or as subtle as how much sleep a particular jury member has gotten recently. Such problems are in direct conflict with principles of the American legal system such as due process and equal justice (Fine, 2013). To identify and address these problems, I am developing software for scraping Virginia court case data and making it easily accessible to the public. Note that the term data scraping refers to a computer extracting data from a human-readable output. Such a system would make it easier to conduct research studies using court data for various purposes, such as what methods of defense result in a not guilty ruling.

Unfortunately, this technical system will not amend the problem by itself, but rather, it will provide an opportunity for change. In order to put it to good use, we first must understand the social aspects of the problem, those being the biases held by the people involved. By analyzing all of the different actors involved in a case study in which prisoners ask for their release date to moved up at different times in the day, as well as the network they form through their interactions, we can see how certain actors can affect the outcomes of trials in a way that is not in line with the principles of the US court system (Cressman, 2009). Essentially, these interactions can lead to unfair trials, in the sense that the sentences are not solely based on the severity of the corresponding crime.

Ignoring either of the social or technical aspects of this problem would result in the continuation of a systemic problem within the court system in which biases that impact the results of cases are ignored. However, considering these aspects would lead to greater

opportunity for change within the court system, such as fairer trials that are based solely on the evidence and arguments provided. At its core, this is a socio-technical problem, in which the technical aspect is used to diagnose the deeper social problem. The social problem, as stated before, is that biases can unfairly affect the outcomes of trials, which I will show when analyzing the aforementioned case study. However, currently there is not a sufficient technical solution that provides enough evidence that such a social problem exists. The software that I am developing will provide opportunities to identify systemic trends within the court system. This means it is a problem with both social and technical aspects, and thus, it needs a sufficient socio-technical solution.

Technical Problem

The United States court system was established to interpret matters of law while minimizing biases and promoting fairness above all else. This can be seen in the grant of "diversity jurisdiction," which exists to prevent favoritism toward in-state parties as opposed to out-of-state ones (Shapiro, 1986). However, the court system is still governed by people, those being judges and juries, and people inherently have their own personal biases, whether they are aware of them or not. Such biases can potentially be seen in a case where a white, off-duty police officer shot a black man that she mistakenly thought had broken into her home. This officer received a relatively lenient sentence of ten years in prison, which could be attributed to racial biases of the jury (Smyton, 2019, October 7). Though a case like this one might be alarming to people who hear about it, it alone does not quite provide enough evidence that there needs to be a change.

Currently, US court data is publicly available, but it is not organized in ways that make it easily accessible for data analysts (Bhat et al., 2020, February 2). Examples of its inefficiencies

include not being able to download the data into common file formats and not being able to sort cases by time frame or other important variables. This means that there is currently no way to easily analyze US court data en masse, because there it is impossible to retrieve and organize such data without jumping through a bunch of hoops. Considering a new solution to this problem would potentially give more opportunities to inspect court data, making common trends and biases within the court system more apparent and in turn more diagnosable. Simply put, an organized method of retrieving and downloading US court data would open up a plethora of opportunities for research into discrimination or even more basic problems within the court system. Such research could also lead to change that would eliminate or at least lessen occurrences like the case exemplified above.

The goal of this technical project is to scrape and publish data from US Courts, starting specifically with Virginia circuit and district courts. This will improve upon the current practice of obtaining US court data by 1) allowing for easy sorting of the data by variables such as time frame, type of court, and civil versus criminal cases, 2) making the data easily downloadable into .csv files and potentially other formats, and 3) preserving anonymity of the data by removing the names of the parties involved. The intention of this project is to make court data more accessible for research studies in order to expose communities that have been marginalized by the court system. The intention is not to have this data be used against parties involved in cases by creating a digital system that exploits or surveils them. This is why anonymity is key: so the data cannot be used for more individual purposes, such as a landlord denying an applicant based on court data.

In order to see this design to fruition, an agile method of software development will be used. This method involves development in "sprints" in which all stages of the development life

cycle are quickly gone through. In order to ensure that this design is optimal, existing successful

datasets and data scrapers will be analyzed and compared. Feedback from data analysts will also

be collected in order to ensure ease of use.

STS Problem

Consider a defendant who has realized they have no shot at winning, whether or not they

were actually guilty. They nervously await their sentence, hoping that it will not be more than a

year, and believing that they are not deserving of more than two. Little do they know that their

fate depends on how hungry the judge was at the time. When defense attorneys prepare for a

trial, they typically take a few main steps. First, they must get to know the defendant and the

subject of the case by gathering as many facts as possible and deciding how they can be used.

Then they will typically find similar cases tried in the past in order to identify precedent that will

result in a favorable outcome for the defendant. Basically, lawyers will rely primarily on their

experience and common sense in order to spin the facts of the case and the interpretation of the

law involved in order to minimize sentences of the defendant (Schuman, 2020, October 7). So,

the current practice is to prioritize facts and the law when providing a defense, and the current

thought is that these are what determine the outcome of a trial.

I believe that this outlook is incomplete, as other more subtle factors also contribute to

these outcomes. Not only biases such as discriminatory beliefs of judges or juries, but also

incidental factors such as the time of day affect sentences. A better understanding of these hidden

factors would both help lawyers develop better defenses, but would also promote fairness during

trials by minimizing random elements and personal beliefs, and could also pave the way for

positive change within the court system. On the other hand, ignoring these factors would leave

defendants in the hands of temporary whims as opposed to the actual severity of corresponding cases.

I argue that biases held by the people involved in trials do indeed affect the outcomes of said trials significantly. Such biases should be accounted for when defense attorneys prepare for trials and should be held in question when assessing the validity of the United States court system. To support this claim, I will be analyzing a study in which a variety of instances where prisoners asked for judges to shorten their sentences were observed, and one of the most impactful factors in the judge's decision was the amount of time passed since the judge's last meal (Anvaim-Pesso et al., 2011, April 26). To analyze this case, I will be using the science, technology, and society (STS) framework of actor-network theory. This involves looking at how all the different human and non-human actors affect each other to form a network that all contributes to the eventual product or outcome (Cressman, 2009). In this case, the actors would range from the judge and prisoners to the time of day or the location of the court. The network builder would be the government with the goal of fair judgment and resolution of parties involved, but rogue actors cause the network to fail in this regard. By analyzing how all these different actors affect the judge's decision, we can see how factors that would generally be thought of as inconsequential actually end up having a much bigger impact due to internal biases, whether intentional or unintentional.

Conclusion

The technical project seeks to create a design that will allow Virginia and eventually all US court data to become more openly available to the public. Better organizational methods of this system as opposed to current sources will allow for this data to be more easily used for research and analysis. The STS research project will use the framework of actor-network theory

to analyze how biases held by numerous different actors involved in the court system can unjustly affect the outcome of a trial. By examining how these actors connect to each other in a network, we can gain better understanding of what parts of the network needs to be altered in order to steer away from the problem.

The STS report will identify a specific example of how biases affect trial outcomes in order to clarify the inner workings of the social problem in question. The technical report will then provide a vehicle for analyzing large portions of court data to get a better picture of what specific issues need to be addressed and how we can go about doing that. These two projects combined will help to resolve the overall problem of eliminating systemic biases within the court system by exploring what needs to be changed and providing a means of doing so.

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