## Data-centric approach to automated legal problem solving

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## Summary

The thesis is devoted to the analysis of the phenomenon of the data-centric approach to automated legal problem solving in the politico-legal dimension. The goal of this thesis is to connect this phenomenon rooted in AI and Law, a distinct and largely empirical field of research, with the politico-legal patterns of change in legal processes when it comes to legal problem solving, especially in the context of adjudication. The context of adjudication is motivated primarily by the fact that the research in the data-centric approach is performed mainly for the purpose of exploring judicial decision-making.

The main argument of this thesis is that the data-centric approach to automated legal problem solving is strongly aligned with neoliberal managerialism. In this sense, this thesis makes a novel contribution to politico-legal scholarship as the phenomenon of the data-centric approach to automated legal problem solving has not yet been comprehensively studied in its politico-legal dimension with respect to neoliberal managerialism.

To this end, the thesis explores the conceptual foundations of the data-centric approach to automated legal problem solving and argues that the emergence of the data-centric approach did not result from any single revolutionary technological shift. The origins of data-centric approach are traced back to the early 1950s and it is shown that on the conceptual level the data-centric approach to automated legal problem solving does not differ significantly from the approaches adopted in the earlier research in the quantitative legal studies.

Furthermore, the current use cases of the data-centric approach are evaluated. It is shown that there are two main areas of AI and Law research where the data-centric approach is applied: prediction of judicial decisions and legal analytics. On this basis, it is argued that the data-centric approach is not a novel phenomenon in kind, but merely in degree. Correspondingly, to a large extent the criticism of early projects in the prediction of judicial decisions still applies to contemporary projects, and in fact, is reiterated in contemporary scholarship.

In the next part of the thesis, the relationship between the origins of the data-centric approach and neoliberalism is explored. It is argued that in the early days, neoliberalism was not generally connected with any formalistic ideas in the AI and Law spirit, and as a

consequence, it is not justified to assert that the data-centric approach may be in some way connected with the neoliberal thought as presented by leading neoliberals such as von Hayek.

Finally, the convergence of neoliberalism and managerialism is evaluated showing that this convergence led to a unified understanding denoting predominantly negative phenomena associated with the rise of modern (informational) capitalism. It is shown that the data-centric approach is strongly aligned with neoliberal managerialism in its understanding after the above-mentioned convergence as it advances the following fundamental elements of neoliberal managerialism: active intervention, prioritizing competition, and the necessity of elite leadership. In this context, chosen real-world applications of the data-centric approach are critically evaluated to show that the presence of the above-mentioned features of neoliberal managerialism is essential for the real-life implementations of data-centric methods of automated legal problem solving.

**Keywords:** AI and Law, Big Data, legal problem solving, neoliberal managerialism, prediction of judicial decisions