CRCL online-first March 2021

## A reply: Hermeneutical injustice in sociotechnical systems

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"Hermeneutical injustice and the computational turn in law" presents an important and thought-provoking argument regarding the social harms of computational law. By applying theories of hermeneutical injustice to computational law, the author demonstrates the complex normative bases for legal decision-making and articulates a new source of injustice that can arise when computation enters legal processes. The paper provides a cogent reminder that many of the law's functions and moral bases cannot be readily translated into algorithmic decision-making, and thus that it is not sufficient to evaluate computational law merely by comparing the decisions of judges and algorithms. More holistic analyses are necessary.

Although the paper provides a valuable application of legal theory to computational law, it could have been further strengthened through greater attention to the interactions between computational and 'traditional' law. Throughout the text, the author positions these two forms of law as distinct practices with competing affordances. A more sociotechnical approach would have instead considered how computational law overlaps with, is shaped by, and itself shapes traditional law, thus blurring the boundaries between these two practices.

This sociotechnical approach could help us trace how traditional and computational law interact to exacerbate both types of hermeneutical injustice that the author attributes to computational law. The first is the individual hermeneutical challenge, through which individuals are unable to understand or contest computational law's application to their lives. Many of these sources of hermeneutical injustice are in fact structured by traditional law. For instance, many computational law systems are shielded from contestation in part by legal regimes of opacity and trade secrecy. When Eric Loomis challenged the use of COMPAS to inform his sentence, he was unable to examine the al-

gorithm itself because its creator, Northpointe, considered the algorithm to be a trade secret (*State v. Loomis* 2016 [5]). Based on the author's description, a similar dynamic appears to be the case for the Dutch System Risk Indication (SyRI).

The second type of hermeneutical injustice described in the paper is the systemic challenge, through which computational law reduces the space for interpretation and argumentation. Here, we can look not just to the computation itself but also to how computation influences the human decision-makers enacting law. Both empirical and experimental research have shown not only that people respond to pretrial risk assessments in unexpected and biased ways, but also that they are often unaware of these behaviours [2, 6]. Novel human-algorithm interactions can therefore alter legal decision-making processes in a manner that is opaque to both individuals and judges, introducing another mechanism that could reduce the terrain for understanding or contesting how decisions are made.

The ultimate question — which the author poses in the conclusion but does not otherwise address — is what to do about the hermeneutical injustice of computational law. How might we take up the author's call "to ensure that hermeneutical injustice is not a ubiquitous bug of the computational law of the future"? Three particular paths (which can operate in tandem rather than being mutually exclusive) strike me as most worth discussing.

The first path is to oppose the turn to computational law altogether. Although we should resist the impulse to treat traditional law as necessarily more just than computational law or to oppose every form of computational law, there are indeed many reasons to resist particular manifestations of computational law. This strategy can be seen in the growing calls for abandoning criminal justice

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risk assessments and the spate of bans on facial recognition.

The second path is to reform technical processes and practices such that people are granted greater epistemic access to how decisions about them are being made. One such approach is research promoting transparent, interpretable, and explainable models. Although transparency and explanations for black-box models are often misleading and unstable, interpretable models are a more promising approach to providing insight into certain dimensions of how computational law operates [4]. Another approach involves adapting algorithm design and evaluation processes to better account for social and political contexts [3]. More sociotechnical and experimental analyses of algorithms can help us gain new insights about how computational law operates and adapt computational legal systems in light of these findings.

The third path is to address the complex ways that computational and traditional law interact to obstruct meaningful contestation and exacerbate hermeneutical injustice. It is necessary to enhance existing forms of legal contestation that are often applied to shield computational law from public scrutiny, for instance by challenging trade secrecy paradigms and strengthening open records regimes [1]. Fundamental shifts in how computation is integrated into legal systems may also be necessary. For instance, the increasing recognition that algorithms can be biased and reflect the standpoints of their developers calls into question the privileged treatment that computational law often receives as mere technical aids. Recasting computational insights as forms of expert testimony subject to

cross-examination rather than as 'neutral' or 'objective' facts could more appropriately account for how these systems are created and enhance opportunities to meaningfully contest them.

Although the precise path forward for combatting hermeneutical injustice is not yet clear, this paper presents a valuable call to action.

## References

- [1] Robert Brauneis and Ellen P Goodman. 'Algorithmic transparency for the smart city'. *Yale Journal of Law* & *Technology* 20 (2018), p. 103.
- [2] Ben Green and Yiling Chen. 'Disparate interactions: An algorithm-in-the-loop analysis of fairness in risk assessments'. In: *Proceedings of the Conference on Fairness, Accountability, and Transparency.* 2019, pp. 90–99.
- [3] Ben Green and Salomé Viljoen. 'Algorithmic realism: expanding the boundaries of algorithmic thought'. In: *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency.* 2020, pp. 19–31.
- [4] Cynthia Rudin. 'Stop explaining black box machine learning models for high stakes decisions and use interpretable models instead'. *Nature Machine Intelligence* 1.5 (2019), pp. 206–215.
- [5] *State v. Loomis.* In 881 Wis. N.W.2d 749: Wisconsin Supreme Court. 2016.
- [6] Megan Stevenson. 'Assessing risk assessment in action'. *Minnesota Law Review* 103 (2018), p. 303.