Combining Tort and Product Liability laws in a world of Artificial Intelligence

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Résumé

This paper studies how the mix of product liability and tort liability shapes a monopoly' incentives to invest in R&D for developing risky automated technologies. Post-R&D investments, robots optimal performances require full autonomy only in specific states of Nature, but they may accidentally injure third-party victims; the monopoly (i.e. AI designer) undertakes maintenance expenditures, and AI users exert a level of monitoring only when they face a duty to monitor robots. In other states of Nature, the AI designer recommends that robots proceed in a human-driven way, and thus AI users must realize a level of care. We show that when there is no duty to monitor, any combination of the strict liability rule or the negligence rule in both areas of law yields efficient maintenance by the AI designer and efficient care by AI users; but the monopoly may over invest as well as under invest in R&D. When there exists a duty to monitor robots, then efficient maintenance and monitoring are reached only when the victim designates the AI user as the principal defendant (under Joint and Several Liability), while the AI designer is strict liable vis-à-vis the State. The AI designer's optimal fine depends on whether AI users face strict liability or negligence. Nevertheless the monopoly may still over invest as well as under invest in R&D.

Mots-Clés: Algorithms, Artificial Intelligence, Automats, Robots, Tort Law, Product Liability.

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