

AI Systems and Continuous Social Impact: The Case for Forethought and Active Maintenance

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Abstract

As Autonomous Systems become more pervasive in our daily lives, and the deployment of such systems ubiquitous within many fields as the 'best' tech to use, developers are being called upon by deployers to envision societal impacts of their systems pre-deployment. However, the issues encountered by society are not always evident a priori, in part because such systems are deployed in complex contexts we call Sociotechnical Biomes. We use the modern threat Autonomous Vehicle Systems pose to pedestrian-way dependent neighborhoods and said neighborhoods' ability to withstand increased traffic and stresses. We then analyze a case study of a Child Abuse Prediction Model, underlining the issues deployers face with unintended consequences of well-intentioned systems. We articulate a systemic change in thinking about what it means to perform active maintenance of a system.