Urban Design for Autonomous Vehicles

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Abstract : After automobile revolution 1.0, we have automobile revolution 2.0 standing at the horizon, Autonomous Vehicles (AVs). While the technology is developing into more adaptable form, the conversations around its impact on our cities have already started on multiple scales, from academic institutions and community town halls, to the offices of mayors. In order to explore more the AVs impact on Urban transformation, we first inquire if cities can be redesigned or rebuilt. Secondly, we discuss expectation management for the public and policy in terms of what people think/believe AV technology will deliver, and what the current technological evidence suggests the technology and its adoption will look like. Thirdly, based on these discussions, we take Pittsburgh, PA, as a case study to extrapolate what other cities might need to do in order to prepare themselves for the upcoming technological revolution, that may impact more than just the research institutes. Finally, we conclude by suggesting a political way forward to embed urban design with AV technology for equitable cities of tomorrow.

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