Regulatory Gaps in Data Protection on Smart Campuses in the United States: IoT Poles as a Sociotechnical Case Study

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In 2020, an R1 University unveiled installations of 'Internet of Things' Poles on campus, as part of the endeavor to become a 'smart' campus and integrate research opportunities with new sensors. These IoT poles are replacing the blue emergency lights on campus used to notify the police in case of an emergency. The blue lights were the result of a Federal mandate for universities to provide data on campus sexual assaults and increase safety after the Clery Act was passed, following the murder of student Jeanne Clery in the 1980s. These blue lights are, however, technosolutionistic and have received ample criticisms because they do not help reduce assaults on campus, are often used for prank calls leading some universities to remove them entirely, and expensive to maintain. This University's approach to replace them with Internet of Things sensors may be beneficial for open research and data collection in partnerships with private entities such as Cox and T-Mobile, but there remains a gap in regulation to offer data protections, as this paper engages with. Being equipped with LiDAR, weather sensors, microphones, video cameras with Artificial Intelligence, surveillance of students and data collecting practices are of great ethical and legal concern. Recently, the deployment effort announced a partnership with Amazon Sidewalk mesh as the next step to the IoT pole interconnectedness. What does a 'smart' campus make of student and other subjected entities rights and what data protections exist or should be considered? This paper engages with this regulatory landscape of 'smart' campuses using IoT poles as a case study, and presents some of the ethical, legal, and social concerns and challenges of 'smart' technologies on United States campuses.