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Supervisor's Department	Department of Social Science
Project Title	Ownership, Control & Regulation of the Internet of Things

Description of Research Project (1500 characters maximum)

The growth of the Internet of Things (IoT) – Internet-connected products that gather and transmit data to people and to other things – has the potential to shift fundamentally traditional conceptions of ownership and the ways people can access, use, and control information. This project builds upon the concept of surveillance capitalism by Shoshana Zuboff (2015), which is characterized by corporations collecting and commodifying massive amounts of personal data with the aim of predicting and shaping human behaviour. Manufacturers of IoT devices use intellectual property rules governing both copyright and patents, and restrictive end-user licensing agreements to extend their control over their products. These companies maintain control through intellectual property laws over the software integral to the IoT's functionality even after its purchase, meaning IoT manufacturers have a newly expanded regulatory capacity to monitor and control their physical products. To enforce this restrictive model of ownership, makers of IoT goods employ pervasive surveillance programs to monitor customers to ensure that they do not violate their end-user licensing agreements.

The project's goals are two-fold: explore how government policymakers, industry representatives, and civil society understand the collection and use of personal data by IoT products and, secondly, examine how these groups perceive the shift in ownership of IoT products. In Canada (and the United States), consumers may be in violation of intellectual property laws if they repair or customize their IoT products. In the United States, several states are trying to pass right-to-repair legislation that would require companies to allow consumers to repair or modify IoT products legally. In Canada, there is no equivalent policy focus on IoT and data governance.

Undergraduate Student Responsibilities (1500 characters maximum)

The student has three key deliverables: 1) preparing and helping to conduct approximately 35 in-person and Skype semi-structured interviews, to be undertaken in cooperation with the faculty researcher, 2) a written analysis of right-to-repair bills currently before state legislatures in the United States, and 3) a post-interview report of key themes raised by interviewees. Interviewees will be policymakers, industry representatives, and digital rights activists in the Greater Toronto Area and the United States involved in the Internet of Things. In cooperation with the faculty researcher, the student will design appropriate interview questions, contact interviewees and arrange interviews from the faculty researcher's network. The student will accompany the faculty researcher on in-person interviews, thus gaining valuable experience on how to plan and undertake interviews. The interviews will explore two themes: how do IoT products collect and employ users' personal data, and with what consequences for privacy, and, secondly, how are IoT products changing traditional ideas of ownership given restrictive end-user licensing agreements? In order to facilitate the U.S. interviews, the student will conduct an analysis of proposed right-to-repair bills in several U.S. states. This analysis will highlight important provisions common amongst these bills, and identify the bills' key proponents and opponents in each state. Along with the faculty researcher, the student will draft interview questions and sample interviewees for Skype interviews. These interviews will explore ideas of ownership and IoT products, and how right-to-repair bills may affect the regulation of IoT products.

Qualifications Required (750 characters maximum)

The student researcher should be from the criminology or Law and Society programs, as knowledge of law, the legislative process, and the construction of crime and deviance are necessary for this project. The student should have an interest in regulation and technology, especially the regulation of data, privacy, and corporate surveillance. In addition, the student should demonstrate excellent research, writing and communications skills and good

organizational and time management skills. The salary will be $15 per hour for 333 hours for total of $4,995. Estimated breakdown of hours: 50 hours interview preparation, 75 hours undertaking interviews and post-interview note-taking, 70 hours background analysis of U.S. right-to-repair legislation, 75 hours for written analysis of legislation, and 63 hours post-interview report.