Thesis Project Portfolio

Some Assembly Required Autonomous Plant Nursery Capstone Design

(Technical Report)

How fear can stagnate technological evolution or be its catalyst.

(STS Research Paper)

An Undergraduate Thesis

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Sociotechnical Synthesis

Fear's impact on the development of technology has long been a contentious issue. The contradictory role of fear as both a potential driver and a barrier to technological advancement is examined in this essay. It explores how opposition and regulatory barriers may either stifle developments or spur innovation and push limits in response to fear. The study uses case studies and literary examples to show how fear has significantly influenced technological advancement in both positive and negative ways. It also explores the moral and ethical issues raised by fear-based technology breakthroughs. According to the findings, while fear may be a potent motivation for change, it must be tempered with accountability, inclusion, and ethical concerns in order to make sure that technology growth reflects social needs and values. In the end, this study underlines the need for a complex understanding of how fear affects technological advancement and stresses the significance of finding a careful balance between innovation motivated by fear and responsible growth. It was the goal of my capstone project to make houseplants self-sufficient. The purpose of the concept was to lessen the burden on plant owners who were worried about being too busy to take care of their plants. The issue was resolved by our Autonomous Plant Nursery, which we previously discussed. a self-sufficient agricultural ecosystem that gives plants the nutrients, light, and moisture that each plot has been taught to require. The personal and societal aspects of this technology must be addressed since the technology my team and I created is used to simplify daily life. It was not meant for people to become unduly reliant on it because it still requires human input. Additionally, customers will have to learn how to operate other electrical appliances in their houses. Technological Closure and Interpretive Flexibility frameworks were used. I employed case studies, literature reviews, and data analysis for my STS project. In my STS research, I hope to get a nuanced viewpoint on a topic that isn't often discussed. My capstone project and the STS study were not designed to complement one another. But there is one thing they all have in common: dread. Both underline that a technology solution may be able to take advantage of people's fears.