

YAKSKI: AN ELECTRIC WATERJET PROPULSION SYSTEM

THE CRUISE SHIP INDUSTRY: THE SILENT GIANT

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By

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SOCIOTECHNICAL SYNTHESIS

Pollution in marine environments is becoming the forefront of pollution on the global scale. Exploring the field of marine environments, the harmful effects of recreational boating were discovered. Safer recreational boating was considered in a technical project aiming to limit pollution created by recreational boats. The STS research paper shares a similar scope while looking at marine pollution in a wider scope and examining the larger stakeholders at play. The paper aims to frame the system with all relevant stakeholders using several STS frameworks. The technical project and the STS research paper are both aimed at examining pollution within the marine environment setting.

The technical project attempted to solve the problem of pollution caused by recreational boating around the world. Although recreational boating is not the worst offender when it comes to pollution, it still contributes a considerable amount of waste. Some bodies of water restrict the use of gas-powered boats to combat this issue, and our technical project aimed to be able to be used within these marine environments. In order to fit this environmentally conscious framework, many designs were considered. The body of a kayak was chosen and retrofitted with jet ski like propulsion attached to it.

The technical projects showed that a system similar to the environmentally conscious mode of transportation, deemed the Yakski, was functional and could be further worked on to completion. Some of the intended designs goals of the project were not met, but could be with more time invested into the project. The technical project succeeded with making an efficient water propulsion system powered by electric motors and functional steering system, however, failed a field test due to an electrical malfunction. The system could be largely improved with

future work with improved steering, lighter body, and more efficient transmission of motor power to water propulsion.

The wide spread marine pollution is generally focused on commercial liners that transport thousands of products across the world's oceans every day, however, the cruise ship industry has a much larger impact on the environment. The STS research paper explores the effect of the cruise ship industry on surrounding stakeholders. Using STS frameworks, the pollution problem with the cruise ship industry is framed to further understand the problem. The STS research paper mainly focuses on examining the cruise ship industry's impact and what can be done to combat this issue.

The cruise ship industry can be framed using the Social Construction framework to show the unfair trade that the technology has on its surrounding stakeholders. The luxury liners have an upper hand on the surrounding economies, government, societies, and environments of the common destinations. The STS research paper explores several case studies in which destinations of the cruise ships are unfairly treated and how they have moved to combat the industry. The problem of pollution caused by the cruise ships has been mainly ignored and something else must be done to combat it. Using the implementation of the Social Context framework, additional outside pressure is necessary in order to make the cruise ship industry stop its pollution and unfair treatment of outside stakeholders.

The technical project and STS research paper both share similar aims as they are linked through the setting of marine environments. Both of the projects aim to solve a problem in a marine setting whether it be remedying recreational boats or the larger scope of pollution worldwide. No matter how large the problem is, there are little solutions that can help work towards the larger picture.

TABLE OF CONTENTS

SOCIOTECHNICAL SYNTHESIS

YAKSKI: AN ELECTRIC WATERJET PROPULSION SYSTEM

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PROSPECTUS

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