
The Family Circuit: A New Narrative of American Domesticity

Karey Helms

KTH Royal Institute of Technology
Stockholm, 100 44, Sweden
karey@kth.se

Abstract

As the world endures and approaches a string of energy crises, *The Family Circuit: A New Narrative of American Domesticity*, aims to critique and challenge society's relationship with energy by provoking individuals to examine their current habits of energy consumption, consider the future implications of these actions, and question their willingness to make sacrifices for a cleaner environment. This is accomplished through the development of a fictional near future society in which individuals are required to produce all the electrical energy that they need or desire to consume. Within the daily narrative of a fictional family of five, the events of their domestic lives have been extrapolated to create a liminal world where mundane, yet peculiar diegetic prototypes create tense situations, uncomfortable behaviors, and unforeseen consequences. The project raises questions regarding local to global contextual considerations, behavioral change within the home diegesis, and hyper-localized hacking.

Author Keywords

Design Fiction; domestic; hacking; home; Internet of Things; energy; agency; behavior change.

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Radio Show

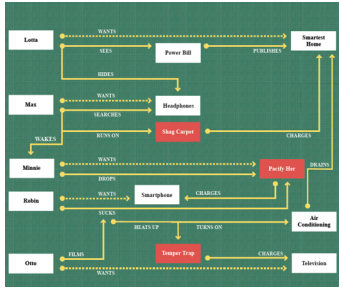


Figure 2: The radio show, a twenty minute parody of NPR's This American Life, provides a detailed insight into the near-future environmental and political climate, the Clean Party's surge to power, the governing Smarter Home and Grid Association (SHAG) of the town Newtown, and the personalities of each member of the Power family.

The plot emphasizes the hyper-localized relationships among family members and the interconnected events and conflicts that consequently occur, diagrammatically and symbolically represented by a closed circuit.

Introduction

Scientists in the Environmental Protection Agency's 2016 annual report on U.S. greenhouse gas emissions attribute the changing composition of the earth's climate to human activities [3]. Research on American public attitudes and opinions towards climate change show the majority views climate change as real, human action as the problem, and personal energy conservation as part of the solution [4][5]. Yet studies indicate that people have relatively little knowledge and understanding regarding energy consumption and the comparative use of energy in familiar activities [1]. Therefore, who will and how, contribute to a reduction of fossil fuel use and participate in sustainable future energy solutions?

The Family Circuit: A New Narrative of American Domesticity, is a speculative Design Fiction [2] project that seeks to challenge society to question their current habits of energy consumption, willingness to make everyday sacrifices for a sustainable future, and individual relationships with energy. Set in the world's first self-sufficient town of Newtown within a daily narrative from the fictional Power family, everyday energy harvesting objects and their correlated accessories and propaganda exist as real and normal technology that result in cycles of events that cause tension, drama, and new peculiar behaviors.

Design

The narrative is in the form of a radio show played within the physical manifestation of a room from the fictional family's home. The room was purposefully designed to be familiar and inviting, and intentionally obscured evidence of its connection to a larger design exhibition. Dispersed throughout the space are diegetic

prototypes of distributed government information such as an energy harvesting catalog, example energy harvest products, a product infomercial, energy bill and a home monitoring brochure. Photographic evidence, or freeze frames, of energy harvesting products in misuse such as Mister Hands dishwasher gloves, were displayed alongside physical products while detailed frictions were described during the radio show.



Figure 1: Digital representation of room including the positioning of all artifacts.

Mister Hands Infomercial



Figure 4: The infomercial describes technology in Mister Hands dishwashing gloves that enable new, and often inappropriate, energy harvesting behaviors. The fictional gloves are featured in the catalog, infomercial and exhibition space.

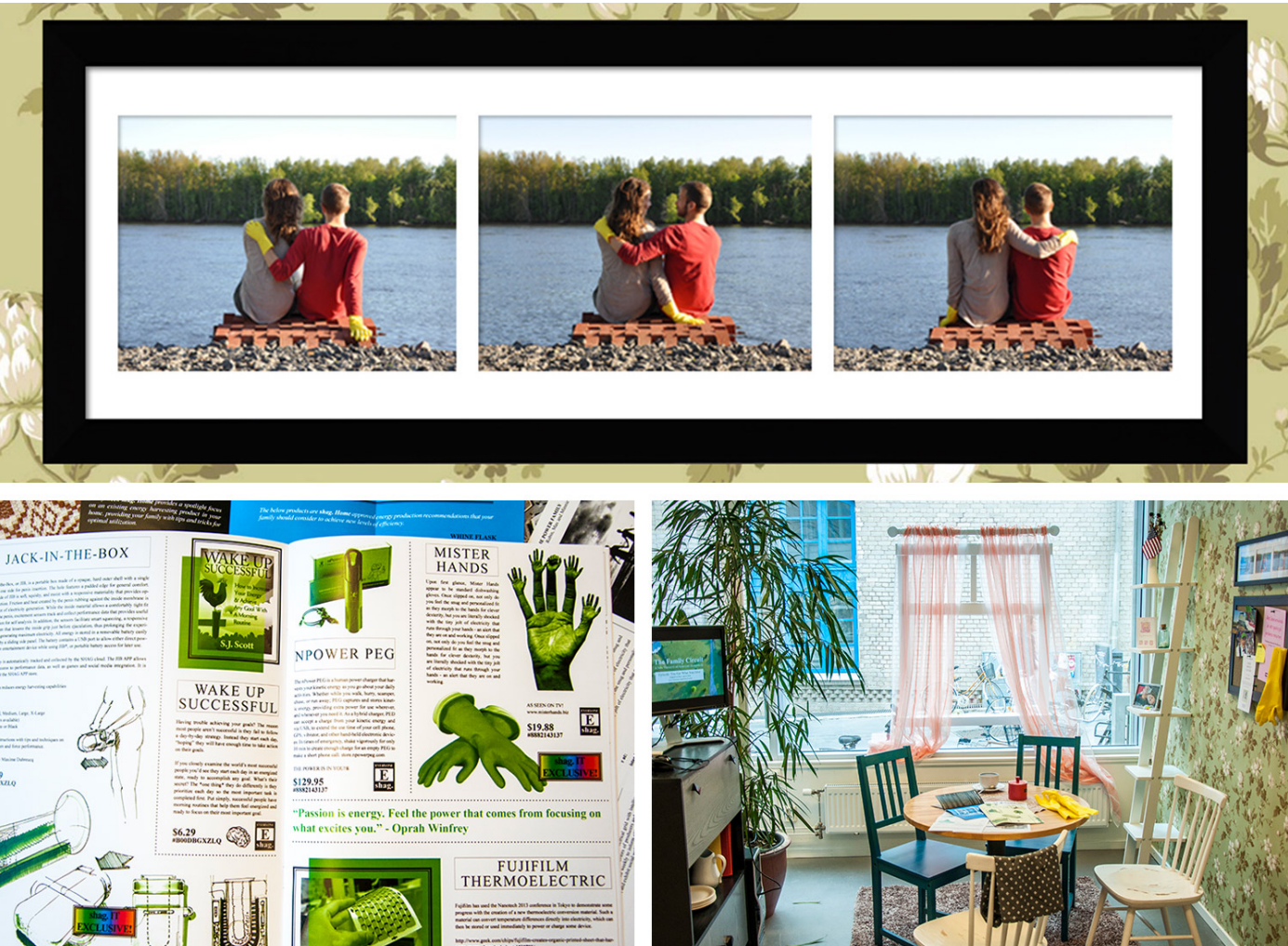


Figure 3: Top image: Photographs, or freeze frames, of fictional family members casually wearing energy harvesting dishwasher gloves. Bottom left: The concept and design of Energy of Things catalog heavily references the Whole Earth Catalog. Special attention was given to the proximity of products on each spread, as the catalog displays both fictional and factual energy harvesting products, technology, tips and solutions. The relationship between the products is aimed to confuse the viewer and provoke a question of reality. Bottom right: Exhibition space, often confused for a coffee break area by unexpected participants.

Additional Artifacts



Figure 5: SHAG government branding, welcome sign to the fictional town of Newtown, and SHAG home brochure featuring targeted advertisements and tools based on home monitoring.

Themes

The project explores the following themes and questions around agency in domestic environments:

Local to Global Contextual Considerations

A prominent theme presented in this project is the literal translation of a societal goal into a domestic mandate. Ironically, the top-down sanction which requires all individuals to produce all the energy they desire to consume, can be viewed as the enablement of complete agency at home in regards to energy production and consumption. When empowering individuals with agency relative to shared objects, spaces and resources, what are the figurative and literal costs to peripheral people, places and societies?

Behavioral Change within the Home Diegesis

Combined with the creation of a liminal space, diegetic rather than experiential prototypes were designed to emphasize relatable rituals and routines within the home. This focus on narrative and roleplaying ultimately intended to provoke reflection, discussion and behavioral change. What tools, techniques and technologies would enable a continuous dissemination of fiction to nurture positive behavioral change and what are the ethical implications of circulating liminal realities?

Hyper-localized Hacking

Misuse, a form of hacking, is indicative of morality receding, which allows for the emergence of a domestic Tragedy of the Commons. In addition, hyper-localized familial relationships and their resulting frictions highlight tremendous variability and unpredictable propensities. What are a designer's ethical responsibilities in respect to hyper-localized hacking

and how can the practice be used as an engagement tool by which domestic idiosyncrasies are features rather than obstacles?

Discussion

Workshop

Diegetic prototypes from the project will be presented and exhibited as artifacts. These include The Energy of Things catalog, SHAG home brochure, energy bill, freeze frames (photographs), and Mister Hands dishwasher gloves and infomercial. The radio show will also be available to provoke further discussion among participants.

Point of Debate

When empowering individuals with agency relative to shared objects, spaces and resources, what are the figurative and literal costs to peripheral people, places and societies?

Biography

Karey Helms is an interaction researcher, designer and technologist with backgrounds in architecture and enterprise Internet of Things. She is a PhD student at KTH Royal Institute of Technology.

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