Abstract

The Journey from Consumer to Investor: Designing a Financial AI Companion for Young Adults to Help With Sustainable Shopping, Saving, and Investing

College students are concerned with the environment, yet they are busy with school and hindered by unavailability of simple tools to affect systemic change. Stronger environmental policy from the European Union includes the concept of ***digital product passports***, which holds the promise to help distinguish ***eco-designed*** products made by ***circular economy*** companies trying to be zero-waste from companies that simply say they are. Tracking product data from the source materials until the consumer, combined with ***data-driven interaction design*** facilitates building transparency into opaque systems. Likewise, advances in the development of ***large-language models*** enables ***artificial intelligence assistants*** to become a translation layer between complex environmental data and human-comprehensible language.

The emerging field of ***Planetary Health*** recognizes profound interconnections between our economic behaviors, ecosystem services such as clean water, air, soil, the climate crisis, and human health. As of 2024, Earth's natural environment is being heavily degraded by the extractive business practices of companies that make many of the products and services we buy every day. The way we use our money to interact with companies - through shopping as consumers and saving / investing as investors - has an effect on the life-supporting biosphere we rely on to keep our planet inhabitable. In essence, from an ecological perspective, every financial action is either an investment decision to support more environmentally-friendly companies - or to support polluters.

My research addresses the need for tools to make sustainable financial action convenient for college students. I focus on leveraging ***design research*** to find design concepts for ***simpler AI user interfaces*** to help college students participate in ***sustainable financial activism***. A survey of 700 students across 10 universities in Taiwan was conducted, enhanced by 5 expert interviews providing industry insights. The major contribution of the study is an interactive AI-assistant prototype.

Keywords: Climate Anxiety, Human-AI Interaction, Digital Sustainability, Financial Activism, Transparency, Planetary Health