Introduction

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How can people build closer relationships with sustainability-focused companies? A research project for designing a sustainable shopping, saving, and investing companion.

Research Relevance

If used wisely, money can help build communities of sustainable impact. This research is timely in 2023 because of the convergence of five trends:

Table 1: Current trends backing the relevance of this research project.

Major Trending Themes (Supernarratives)
Increasing environmental degradation
Young people demand sustainability
Intergenerational money transfer; relatively young people have money
Appearance of sustainability metrics and instruments such as ESG, B Corp, Green Bonds, etc
Technology adoption and generative AI-based user interface availability

Research Background

I grew up reading science fiction books and their influence on my outlook towards future possibilities continues until present day. Star Trek has a portable device called a ***tricorder*** (fig. 1), which enables imaginary future humans fix all kinds of problems from scanning for minerals inside a cave to scanning human bodies for medical information. I would love to have such a device for consumer choices and financial decisions - to know what to buy and which businesses to do business with. Robots are already integral part of our lives; this thesis proposal was partially written using Google's and Apple's Voice recognition software, allowing me to transcribe notes with the help of an AI assistant.

Figure 1: Captain Sulu using a Tricorder (Star Trek) - Photo copyright by Paramount Pictures

Research Motivation

As a foreigner living in Taiwan, I've relied extensively on AI assistants for many aspects of my life: to communicate, move around efficiently, find food and services. Even when we don't realize it, AI assistants helping us with many of our mundane tasks. When writing in Chinese, Apple's text prediction algorithms translate pinyin to 漢字 and show the most likely character based on my previous writing, Google's maps find efficient and eco-friendly routes and recommend places to eat and ChatGPT provides statistically probable advice from the sum of human knowledge. While it takes incredibly complex computational algorithms to achieve all this in the background, it's become so commonplace, we don't even think about it. From this point of view, another AI assistant to help humans with choosing more eco-friendly businesses to show, save, and invest doesn't sound so much of a stretch.

Research Objective

Without reliable and easily accessible data, it seems impossible to know which company is more sustainable than the other. We don't really know what's green, unless we spend a lot of time looking at the numbers. Environmental issues are caused by production and manufacturing processes of the companies that make the products we consume on a daily basis. The study presents an AI companion design which seeks to help people build relationships with sustainability-focused companies. The major contribution of this study is an interactive artefact (a prototype) informed by design research.

Research Demographics

My research targets respondents according to the following criteria.

Criteria	
Location	Taiwan
Population	College Students
Count	700

Interviews with experts in finance and design, and a including a choice experiment between potential feature sets in consumption, savings, and investment.

Criteria	
Location	Global
Population	Experts
Count	5

Research Questions

My research aims to answer the following questions.

Table 4: Table of research questions.

№	Question	Methods
1	How can AI assist sustainability?	Literature Review
2	How can college students use AI assistants to take environmentally sustainable financial actions?	Literature Review and Expert Interviews
3	What type of sustainability questions do college students prefer to ask an AI assistant?	Student Survey