

ABOUT ME

- Studied architecture at the Southern California Institute of Architecture (Sci-Arc)
- B.A. degree in Design Science, the <u>field of study</u> created by <u>R. Buckminster Fuller</u>
 - Developed a whole-systems, comprehensivist perspective
- Extensive background in Information Technology building desktop PCs, servers, networks and websites
- NOW: UX/UI designer design thinking . drawing / sketching . wire-framing . prototyping . front-end development (HTML / CSS / JS)
 - Main Interests: UX Designer / Design Sprint Facilitator . Chatbot Developer . Design Thinking + Design Science Expert

UX DESIGN PROJECTS

- IQVIA / Wingspan Technologies Single Sign-On Login Menu
- Independence Blue Cross Enterprise Dashboard for Senior Executives
 - Alvernia University a responsive web site design
 - BANK mobile banking alerts app / Adobe XD Prototype
 - Solar EV: Conversational Interface about energy for Electric Vehicles
 - TrashDiary: Voice User Interface for Waste Reduction Coaching App
- Brainwave Network: Brain Health Related Online Store + Facebook Page + Mobile App Prototype
 - Interstellar Shipping: An Immersive S.T.E.M. Space Science Educational Environment
 - **IDEA**: A Text-to-Speech Messaging App for Classroom Brainstorming

IQVIA Single Sign-On Menu | last prototype developed: desktop version

OVERVIEW

The objective was to create a common look-and-feel for several previously developed web applications as well as a single sign-on screen for users of multiple applications.

Mockups and prototypes were created using Adobe XD, Premiere Pro and Photoshop as well as HTML5 / CSS3 and JavaScript. Digital assets for the application codebase were created using Figma, Sketch and InVision Studio.

DESIGN CHALLENGE

To develop interactive prototypes and working code for interfaces that would create a consistent experience across multiple web applications.

Role: UX / UI designer Timeframe: 1-year Platform: MacOS

Tools: Adobe XD, Sketch, Figma,

InVision, and Intelli-J IDE

STATUS: Project Completed



Independence Blue Cross | Internal data visualization desktop site at IBX Headquarters in Philadelphia (video)

OVERVIEW

"The **Executive Dashboard** project provides IBX with a new way to look at the performance of our project portfolios."

The Design Process

- gather requirements from users
- create hand drawn sketches on paper web page templates
- make isometric drawings that include layers and slide-in or dropdown menus
- build clickable pdf mockups
- use the Bootstrap framework for layout and develop site architecture
- use JavaScript libraries for graphic display from JSON file data libraries
- populate the layout with JS graphic components linked to JSON libraries

Role: UX designer / UI developer

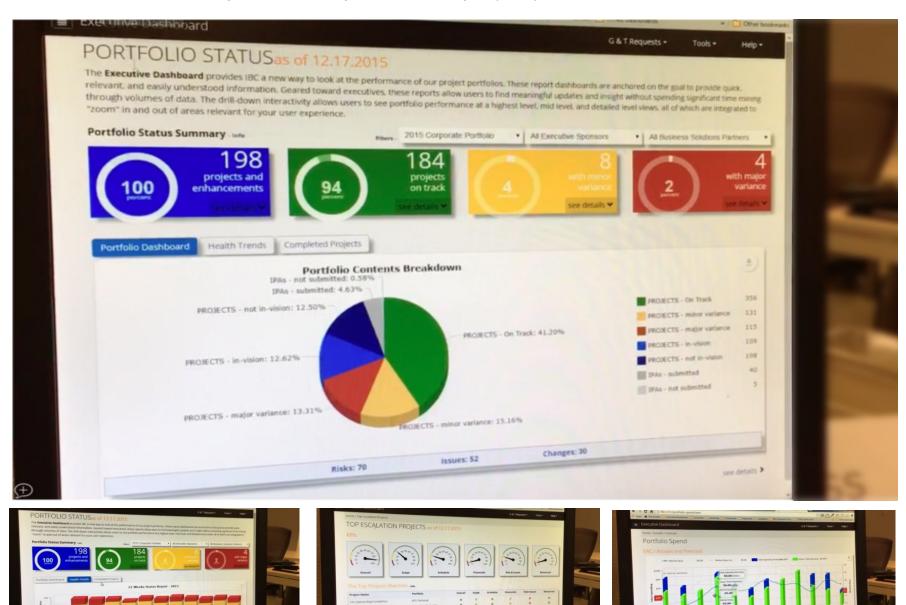
Timeframe: 8-months **Platform:** Windows 10

Tools:

Balsamiq Mockups, Sublime Text, Bootstrap, JavaScript libraries:

D3.js and amCharts.com.

A link to the project documentation - link to project documentation



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Alvernia University

OVERVIEW

Web page templates developed from Photoshop mockups and a responsive web experience created using the Bootstrap framework.

Problem Defined and Solved

- Users with multiple screen sizes need access to mission critical information on the university website
- Web page templates developed for the university's content management system (CMS)

Role: contract UX and UI designer

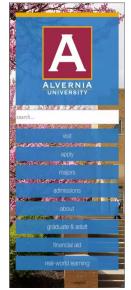
Timeframe: 6-months **Platform:** MacOS

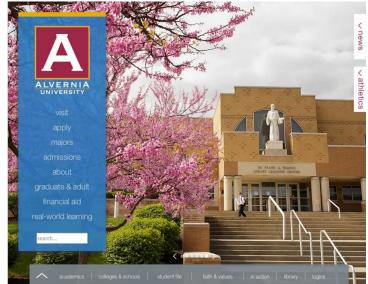
Tools: Adobe Photoshop,

Fireworks, Dreamweaver, Sublime Text and the university's (CMS).

STATUS: Project Completed

| Alvernia.edu / Home Page (link to prototype) (live home page)







Alvernia.edu / interior page (live site)







Bank Account Alert Prototype | using Adobe XD: (link to interactive XD prototype)

DESIGN CHALLENGE

To develop an interactive prototype.

To make the app prototype simple to
use as well as informative.

EXPECTATION

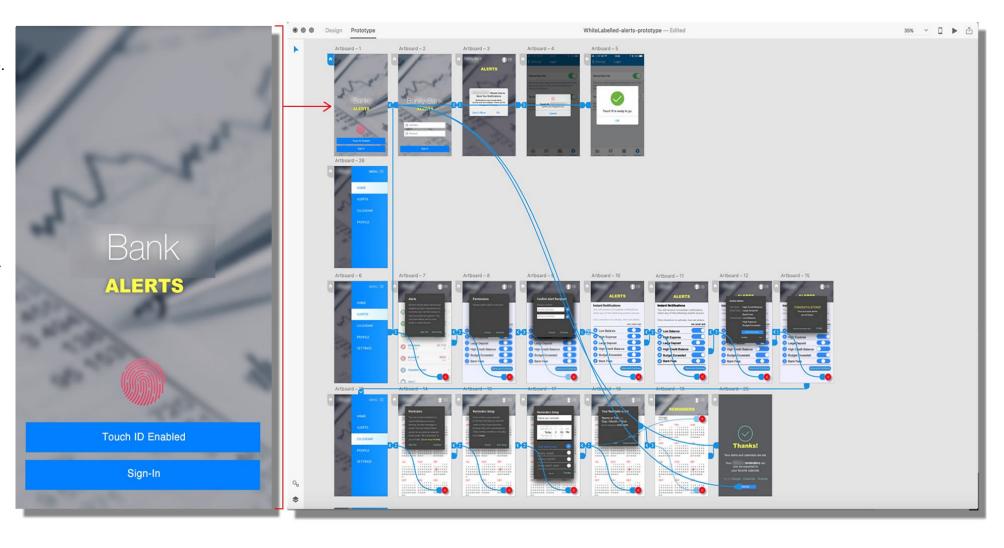
Rapid-prototype a plausible mobile interface experience for bank customers.

Role: contract UX and UI designer

Timeframe: 2-weeks
Platform: MacOS

Tools: Adobe XD and Fireworks

STATUS: Project Completed



Self-Initiated Projects

Conceptual Design for Vehicle-Based Conversations about Clean Energy The Solar Electric Vehicle (EV) Project

Vehicle-Based Conversations with an A.I. about Clean Energy

- Alexa Skills Kit / Adobe XD / JavaScript / AWS

Overview

This project was created during a Bucky Fuller Institue design science bootcamp for creating sustainable solutions to global problems.

The vision:

 ..a city filled with intelligent, solar-charged electric vehicles that talk to their passengers. Every kind of car, truck, bus, subway and motorcycle is electricitypowered, maybe even electric scooters and skateboards! The air is deliciously clean and clear!

The Challenge

"To Accelerate the Transition to Electric Vehicle Transportation in Urban Areas"

In the near future, a conversational artificial intelligence available in your electric vehicle, could converse with you about enhancing the experience of being a passenger, such as discussing its energy consumption and sources of electricity.

Role

Role: UX researcher and UX/UI designer

Timeframe: indefinite

Platform: MacOS

Tools: Adobe XD, Fireworks and Photoshop,

Alexa Skill Development tools

Approach

The Problem Defined

- Convert more people to EV ownership

Developing Community with Early Adapters of EV's

- What ideas do they have for the future of their vehicles?

Prototyping and Ideation

- ideation involved rapid-prototyping interface solutions that emphasized hands-free ease-of-use

Deliverables Anticipated

- a cloud-based conversational service discussing benefits of electric vehicles powered by renewable energy

The Technology Used

An Echo Auto (an Amazon smart speaker add-on for incar use) will be installed in electric vehicles that allows its driver and passengers to interact with the Alexa Artificial intelligece (A.I.).

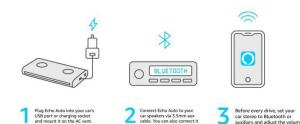
Results

STATUS: Project In Progress

- In-vehicle Alexa device purchased
- The Tesla Model 3 "Solar EV" upgraded to latest model
- Alexa app (skill) programming is in development
- Inspired by The Solar EV Project research paper

Installing the Amazon Echo Auto

- 1. Plug Echo Auto into your car's USB port.
- 2. Connect Echo Auto to your car's speakers.
- 3. Set you stereo to a Bluetooth input and open the Alexa app to check the configuration.





Next download the **Solar EV Alexa voice app** *(when it becomes available)

Support page: How to setup your Echo Auto Product details: Echo Auto on Amazon

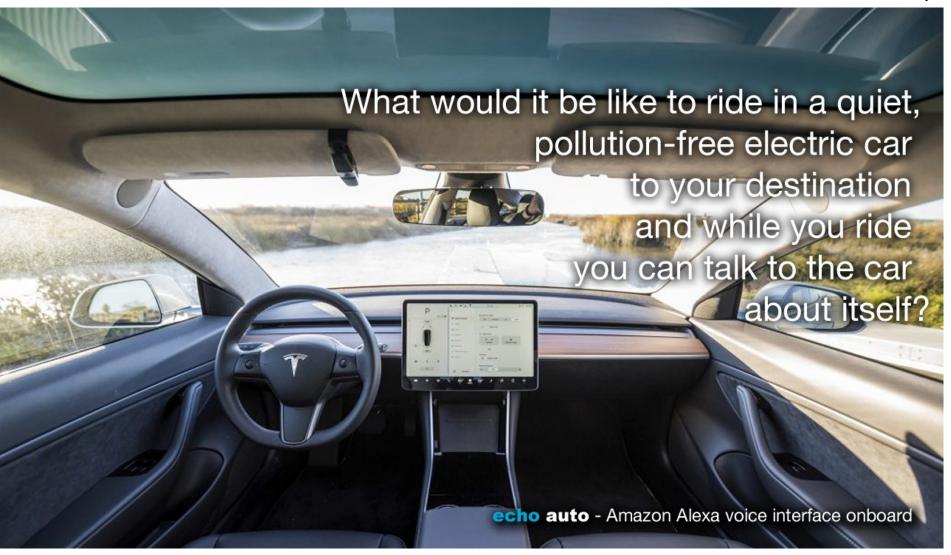


IMAGE: 360-degree photo developed by Poppr (link)

Placeholder for Future Graphics Solar EV – interaction model / user flow Conceptual Design for a Voice App for Waste Reduction My TrashDiary

Voice App for Waste Reduction for Amazon and Whole Foods Customers

- Alexa Skills Kit / Adobe XD / JavaScript / AWS

Overview

This project is based on a theory about unconscious behavior that most people display when they discard an item.

I'll call it "The Bottomless-Hole-in-the-Ground Syndrome".

It's an ancient brain pattern and cognitive blind spot that continues to operate in the subconscious of most people.

The theory goes like this: humans have been throwing things away into a metaphorical hole in the ground since - who knows when! Actually those holes in the ground are physical and psychological as well.

The Challenge

TO GENERATE AN ORIGINAL SOLUTION

What-if in the future, a conversational artificial intelligence were available to support and coach those of us interested in reducing the amount of our waste?

Would anyone talk to it?

Role

Role: UX researcher and UX/UI designer

Timeframe: (1) academic year

Platform: MacOS

Tools: Adobe XD, Fireworks and Photoshop, Amazon

Alexa Skill Development tools

Approach

The Problem Defined

- Human cognitive blind spots about trash have caused significant damage in our closed planetary ecosystem Empathizing with Customers

- Externalizing mindfulness and supporting the recyclingintentions of social influencers

Prototyping and Ideation

- Emphasizing future-oriented technology-based solutions **Deliverables**
- Design for a cloud-based support service as an opt-in personal waste reduction coach.

The Technology Used

All Amazon Echo devices, mobile apps and Internet-of-Things device with access to the Alexa A.I. service.

<u>Results</u>

A solution was developed based on users having personalized conversations with an Amazon cloud-based **A.I. as-a-Service** to support their efforts to create new disposal habits. Interactions could occur throughout the users day, at home through stationary Alexa devices and away from home using mobile devices and Alexa-connected wearables. Users would request reports from Alexa summarizing their trash disposal patterns, possibly requesting preemptive notifications to support new habits.

STATUS: Project is still In Progress

Waste Reduction Assistant | MyTrashDiary is a location-aware voice-first app for users interested in tracking and reducing their personal waste (currently under development)

MyTrashDiary is an Amazon Alexa Voice App for tracking items being discarded by the user. This voice interface and it's companion screen version synchronize with Internet-of-Things (IoT) devices in the home of the user for tracking waste disposal events.

This project was for an assignment for the PENN XSD Design Program._ (link)

A visualization of the extent of the plastic bottle pollution problem:

- https://graphics.reuters.com/ENVIRONMENT-PLASTIC/0100B275155/index.html



Interaction Model

This shows how the Echo Loop is worn, spoken and listened to by the user.

(link to demo and review)

(Amazon Echo Loop page)



INTERACTION DESIGN



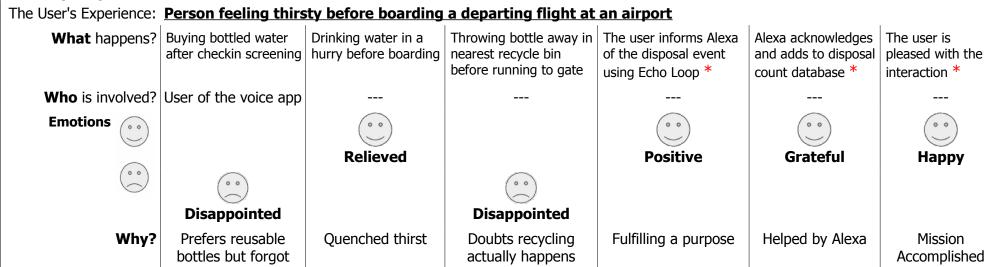
Waste Reduction Assistant

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User Journey

The MyTrashDiary is able to capture trash and recycling events from user input or by trash disposal receptacle detection and other Internet-of-Things devices in the home. The journey illustrated takes place when the user is away from home.

Journey Map



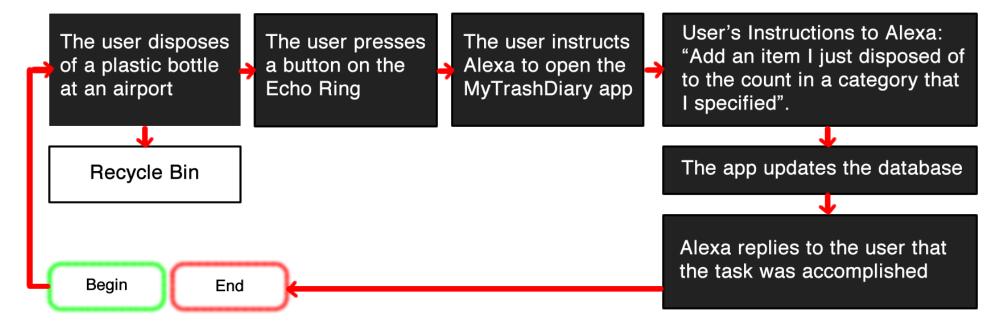
Design Goals

- To create a frictionless conversation-like user experience for someone interested in quantify -ing their waste generation and reducing the amount they throw away.
- To increase user awareness of their waste disposal events and locations specifically disposing of plastic bottles.

Link to user research survey:
- Plastic Bottles:

Trashed or Recycled?

User Flow *



Waste Reduction Assistant | MyTrashDiary is a location-aware voice-first app for users interested in tracking and reducing their personal waste (link to Adobe XD prototype)

An Adobe XD prototype

A waste reduction coach is an entity that a user allows to track and montior their behavior in order to suggest corrective actions to achieve the user's intended goals.

This mobile app prototype will illustrate visually what the voice app does with speech when users report their waste disposal events. Users can also request summaries regarding disposal events over various periods of time: weeks, months, etc. The mobile app will also display graphs and charts on a dashboard page.

STATUS:

The Alexa-enabled Adobe XD prototype is in development.

This project is still In progress...

- link to mobile prototype

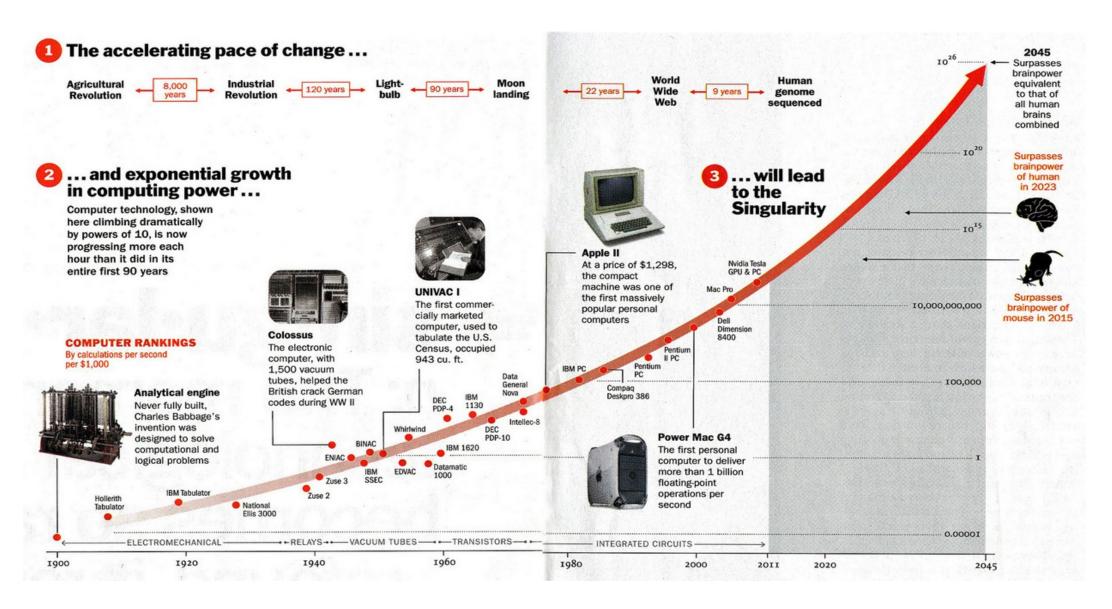


Waste Reduction Assistant

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The MyTrashDiary waste reduction personal coach will tap the Exponential Growth of Computing Power currently underway to support users over their lifetimes.

The voice and mobile app will be hosted on AWS, the fastest growing voice interface platforms developed so far, whose A.I. compute capabilities are growing exponentially.



Source: Ray Kurzweil The Law of Accelerating Returns, https://www.kurzweilai.net/the-law-of-accelerating-returns | Big Think video

Conceptual Design for Online Store + Facebook Newsfeed + Mobile App Brainwave Network

OVERVIEW

"The Brainwave Network is your one-stop-shop for mindfulness technology and tools for brain-healthy living to achieve optimal mind-body performance."

DESIGN CHALLENGE

- To develop a consumer facing web storefront and an interactive app plus an informative newsfeed for people practicing meditation and a health enhancing mindfulness lifestyle.

Role: UX / UI designer Timeframe: indefinite Platform: MacOS

Tools: Shopify web site, Adobe XD, Adobe Fireworks and an Amazon

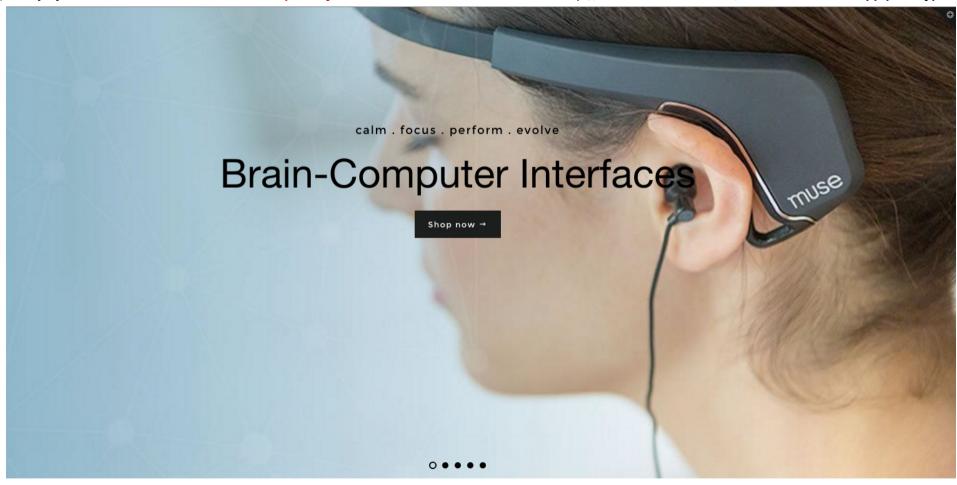
Merchant Account

- link to incomplete XD prototype

STATUS: This project is paused.

Shopify e-commerce site: the store is temporarily closed . Facebook news feed: http://brainwavenetwork.com/ . Link to mobile app prototype

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Placeholder for Future Graphics Brainwave Network – mobile app prototype Conceptual Design for an Immersive Science Education Experience Voice-Controlled Interstellar Shipping

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Overview

This conceptual design is for a futuristic S.T.E.M.+ A.I. space science curricula based on a voice-only interactive radio show-like Alexa adventure.

This project has two (2) parts: **Starship Status** – intra-ship events.

* not yet developed

Starship Space Facts – external-ship events: http://amzn.to/2EbCj03

- * An Amazon account is required and an Alexa device for access.
- http://amzn.to/2CLsRU4

Problem / Opportunity Defined

How to teach young people to think like scientists traveling through space on a fictitous starship that talks to them about their current situation.

Role: Former Space Science educator, UX researcher / designer Timeframe: continuous (3+ years)

Platform: MacOS

Tools: Adobe Creative Cloud, HTML5 / CSS3 / JS / jQuery and Alexa Skill Development tools

STATUS: Project paused



Conceptual Design for Voice-to-Text Group Brainstorming App
My IDEA

Overview

This is a proposal for an experimental interface inspired by studies of the **Idea Machine** currently in use at the Wharton School of Business at the University of Pennsylvania.

"The **Idea Machine** allows educators to send challenges to students' mobile devices to prompt a dialogue and ignite fun bouts of brainstorming!"

- Wharton IdeaMachine description
- Wharton IdeaMachine FAQs

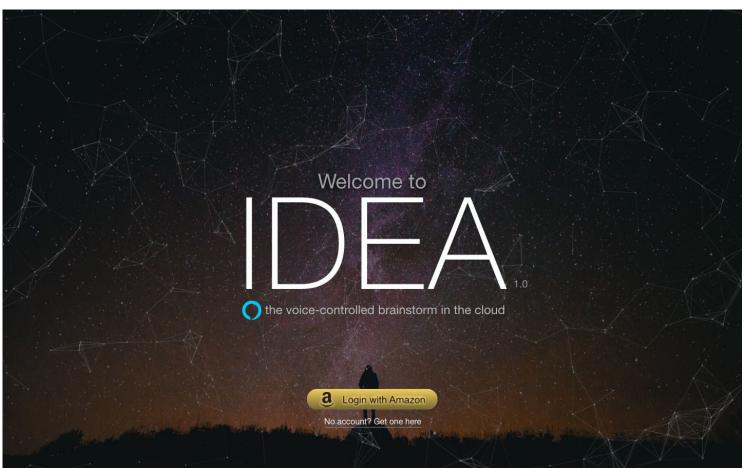
Problem / Opportunity Defined
The MyIDEA interface would use
speech-to-text / text-to-speech
cloud-based technologies:
Amazon Alexa, LEX and Polly.

Role: UX researcher / UI designer

Timeframe: 4 months **Platform:** MacOS

Tools: Adobe Creative Cloud, HTML5 / CSS3 / JS / jQuery and Alexa Skill Development tools

STATUS: Project is paused

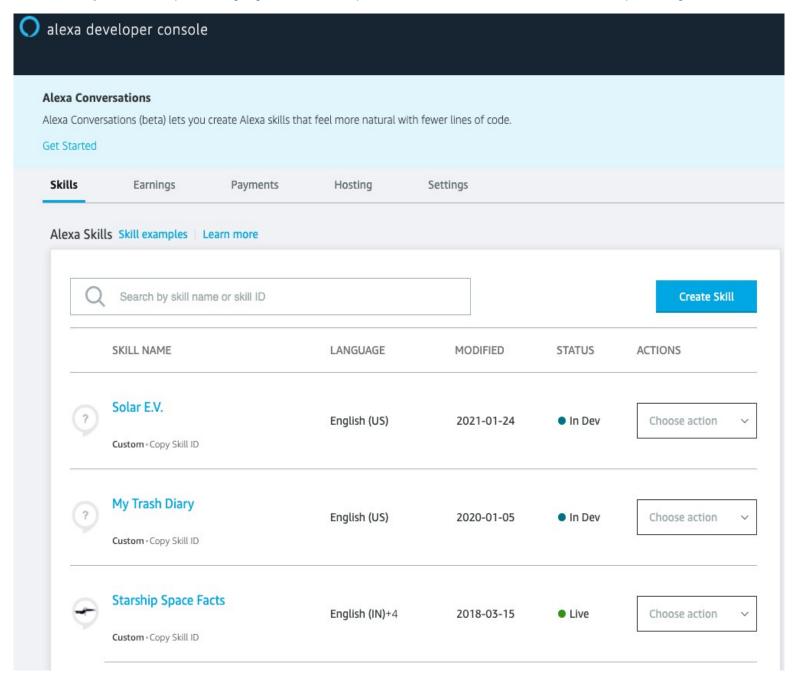




Amazon Alexa Skills - In-Development and Live

My Alexa Skills | Link to Complete List: https://drive.google.com/file/d/11qZEhoDab4lvUslt8l45dOl9Q46u2V8x/view?usp=sharing





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