OPEN DESIGN studio

PARTICIPATORY SOLUTIONS FOR HUMAN FLOURISHING

Duke UNIVERSITY | BASS CONNECTIONS

OPEN DESIGN PROCESS

UNDERSTAND — WHAT ARE THE NEEDS, HOPES, AND DESIRES OF THE COMMUNITY?

CREATE — WHAT ARE THE RADICAL WAYS WE CAN BUILD TO SHARE?

EVALUATE — WHAT ARE THE EXPERIMENTS WE CAN RUN TO MOVE FORWARD?

SHARE — WHAT ARE WE CONTRIBUTING & COMMUNICATING

WHAT IF... *students co-designed solutions for flourishing communities with stakeholders traditionally excluded from innovation & decision-making processes?*

NECESSITY-DRIVEN ENTREPRENEURSHIP

What if ECHO could help small business owners navigate the ecosystem and lower the feeling of risks associated with starting a business?

KEY INSIGHTS:

Small business owners and entrepreneurs in Durham **need to feel empowered and encouraged, so they are motivated to start a business.**

- Aspiring business owners have a **fear of failure**, which blocks them from getting started.
- Resources are not in one place or **contextually relevant**
- **Complex system** to navigate
- ECHO and mentors are vital for catalyzing success

PROTOTYPES:

JOURNEY MAPS GOALS:
- **Inspire** new entrepreneurs through **storytelling**
- Offer advice and lessons learned
- Reflect individual, **human, experiences**, unlike many of the existing resources in the Durham ecosystem.

TESTING:

USABILITY TESTING
We conducted 10 tests with entrepreneurs, mentors, professional designers, and our codesigners.

KEY QUESTIONS
- How do you feel when you look at this map?
- What would you change?
- Walk me through each step and tell me how applicable this is to your own/potential journey and business idea...

RESULTS:

ITERATIONS
- Call to action added so readers can sign up to learn more/enroll
- Emphasis on challenges and community impact
- Design changes to boost readability

RECOMMENDATIONS
- Templates for ECHO to utilize for future stories
- Key questions and experiences added to the template to guide storytelling
- Future recruitment campaign

EDUCATION

What if high school educators could intuitively integrate ethical decision-making into technical project work in existing computer science curricula?

KEY INSIGHTS:

- For human flourishing, **all students** must have opportunities to **meaningfully engage with computer science** and technology education.
- **Pre-existing curricula**, such as Advanced Placement, presents a **barrier** to ethics-centered CS curriculum.
- It is **challenging to integrate our curriculum into public school learning** as public school educators tend to have less flexibility.

PROTOTYPE:

NOTION PLATFORM WITH ETHICS-CENTERED CS LESSONS

GEOGRAPHY GAME
Code a game that counts how many countries the user can name. How do students source their country list? What/who does this leave out?

TESTING:

LESSON
High school educators using lesson in their classrooms, pre- and post- survey.

KEY QUESTION
How did the lesson affect students' confidence in tackling ethical dilemmas?

PLATFORM
3 educators using the platform, live interview and survey

KEY QUESTION
How intuitive is the site and how can we improve the site?

RESULTS

LESSON TESTING
- **Increase** in % of educators who agree that their students think ethics are relevant to tech development
- **100%** of educators felt confident in their ability to **integrate ethical topics** into teaching technical skills after lesson

RECOMMENDATIONS
- Outline **pre-requisite skills** for each lesson
- Create an **editable** PDF or Google Doc version of each lesson
- Add **extra challenge** for students

CLIMATE

What if Durham community members, local organizations, and policymakers collaboratively develop inclusive and actionable climate resiliency solutions that incorporate the community's wants and needs?

KEY INSIGHTS:

- Climate resilience is a complex issue that is difficult to address **without meeting basic community needs**
- Various **stakeholder groups are asynchronously** working to strengthen climate resilience within the Durham community
- Effective climate resilience solutions need to **educate community members, provide realistic actions, and strengthen communication channels**

PROTOTYPE:

CLIMATE ACTION PAMPHLETS GOALS:
- Provide equitable and easy-to-understand information on climate issues in Durham
- Include a QR code to access more in-depth information
- Durham County leadership to eventually utilize these pamphlets

TESTING:

PAMPHLET TESTING
We distributed climate action pamphlets to community members at public spaces and provided a usability survey.

KEY QUESTIONS
- Was the language used appropriate?
- Was the pamphlet visually appealing?
- Did this pamphlet make you feel more knowledgable about extreme heat/flooding?
- Is there any information you wish the pamphlet would include?

RESULTS:

USABILITY TESTING
- **Majority** gained more knowledge about heat and/or flooding
- **Majority** gained new practical actions to take
- **100%** agreed that the pamphlet was easy to navigate

RECOMMENDATIONS
- Provide tips for how to deal with **climate issues in the moment**
- The use of QR codes and links **not accessible to everyone**
- Provide **information and resources** regarding health

COMMUNITY TECH

What if there were established, easily accessible models for engaging Duke students in technology volunteerism?

KEY INSIGHTS:

- **Tech volunteerism**, has emerged as a valuable way to fill **demand for tech skills** and the **limited resources of non-profits organizations.**
- With students, there is a **two-way street** where **organizations get help** while **students practice their skills.**
- Students want to **devote more time** for **volunteering**, but **time constraints** prevent them
- Students are **interested**, however they are often not **aware of the opportunities** available to them as well what **tech volunteerism** is.

PROTOTYPES:

POSTER | **SYLLABUS**

FIRST CLASS

EXPLORING TECH VOLUNTEERISM

Different materials were created for the advertising and the introduction of a the house course to form a strong foundation.

TESTING:

ADVERTISING
A Poster was shown for 30 seconds with recall and design tested.

KEY QUESTION
- How well did the poster advertise the class to potential students?

PRESENTATION
An abbreviated version of the first class presentation was shown.

KEY QUESTION
- How engaging is the class structure and materials ?

RESULTS :

TESTING
- Poster was effective at advertising the house course.
- **Poster** information had **high** information **recall rate.**
- **Slides** covered **prompted** continued **interest.**

RECOMMENDATIONS
- Make sure **tech volunteerism** is **defined** clearly.
- Place greater **emphasis** on the **content displayed** rather than relying on **commentary.**
- Include more **engaging activities** in syllabus.