

CS377Q: Today's goals

- Guest lecture: Accessibility research
- Designing presentations
- Assign P5
- User study data analysis



Guest lecture: Jingyi Li

- Ph.D. candidate, Stanford University
- Research in Accessibility



User study expenses

- For reimbursement for your team's user study expenses
- Consolidate into 1 person per team
- Provide an amount and explanation of the expenses in a request to Trijeet's Venmo ID: trijeet-mukhopadhyay
- Please make request by June 3

P5: Project Fair

- 3-minute lightning talk
- Poster
- Demo

P5: Project Fair schedule

- Project Fair Schedule, Monday, June 3, d.school atrium
- 5:30-6:00 Student set up in
- 6:00-6:40 Class intro, 3-minute team pitches
- 6:40-7:45 Food and Open House
- 7:45-8:00 wrap up

P5: Lightning presentations

- 3 minutes
- Make sure you introduce team name and members
- ID problem (skit, video)
- Explain novelty of approach
- Demo clip of prototype
- Can be a mix of live action and recorded video

P5: Project Fair demo

- Demonstrate prototype
- Setup a task that people can accomplish in about 1 minute
 - Like running a quick user study with them
 - Let them manipulate the prototype
 - Consider imposing an appropriate disability to experience the prototype
- Consider inviting person with disability to come for demo
- Share what was learned from user study
 - Include user study data on poster
- Jurors and public virtual investing exercise

P5: Poster

- Project name and names of all the team members.
- User need: The problem it's addressing
- Solution: Perhaps show a main screenshot of the prototype
- User study data: Evidence from the user study demonstrating what you learned from the study
- Good visual design—help people decide if they want to engage with you for more info
- Examples (assignment statement)
- Email a draft, Saturday, 12 noon, we'll give feedback by Saturday eve.

Hi, I'm Artbot.

Your antagonistic, artful companion.

Vincent Nicandro, Casey Wong, Zach Goodale, & Lexi Stein

The problem

The idea that art is precious and needs to be perfect, stifling creativity.

The process



Needfinding



Brainstorming



Experience Prototype



Prototype Ideating



Lo-Fi Prototype



Med-Fi Prototype

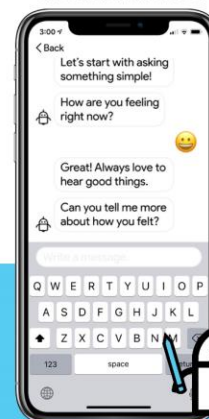
The solution

An app designed to improve your creative adaptability.

Create disasterpieces



Check-in with Artbot



Track your progress





Improving the Accessibility and Quality of Perinatal Health Services in Rural Hawaii

The Hawaii Collaborative Health Initiative (HI-CHI)



Introduction to HI-CHI

- HI-CHI is a project of Friends of the Future, a 501(c)(3) nonprofit corporation that houses 11 community-based health and wellness related programs in Hawaii County.
- The Hawaii Collaborative Health Initiative (HI-CHI) was created by a group of health care providers who came together in 2009 to develop strategies for improving essential neonatal child health care services in Hawaii County.
- Through the HRSA Rural Health Network Development Planning Grant, HI-CHI has worked to develop organizational infrastructure during 2013 to carry out network activities for Neonatal Response Teams (NRTs) and perinatal quality improvement throughout the rural areas of the state.

HI-CHI Vision

Accessible, high quality maternal and infant healthcare for rural areas of Hawaii.

HI-CHI Mission

To improve the accessibility and quality of health services for mothers and infants in rural areas of Hawaii through education and facilitating collaboration between health facilities, healthcare providers, and the community.

HI-CHI Goals & Objectives

Goal 1: To encourage rural birthing hospitals in the state of Hawaii to work collaboratively to enhance patient safety, meet national guidelines, and share new ideas to improve healthcare.

Objectives:

1. Develop in-house neonatal rapid response or resuscitation teams to resuscitate and stabilize sick newborns until the pediatrician arrives. This will improve patient safety and allow hospitals to meet national Neonatal Resuscitation Program guidelines.

Goal 2: On-going healthcare quality improvement for mothers and infants.

Objectives:

1. Support state-wide quality improvement initiatives that address gaps in rural health outcomes for mothers and infants through coordinated training and educational activities that build capacity of healthcare providers in rural areas.
2. Promote system changes by provider organizations to increase use of evidence-based clinical practices for mothers and infants.
3. Support other efforts that maximize available financial and human resources to improve maternal and infant health in rural areas.

HI-CHI's Current Focus

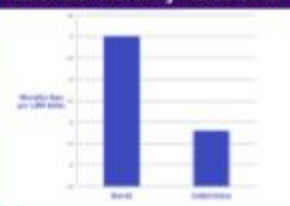
- A main focus for HI-CHI is Neonatal Resuscitation Team (NRT) Training for rural hospitals. HI-CHI has developed an NRT training protocol based on National Standards and facilitates NRT Training statewide.
- In 2013, HI-CHI's scope expanded by taking a leadership role in the creation of a perinatal quality collaborative for the rural areas of the state. Quality improvement for perinatal care is currently based on data collected and analyzed for NRT measures.



Neonatal Response Teams: A HI-CHI Success Story

Problem: 10% of all babies born need some resuscitation assistance at birth (Katzwiler, Dixon, AAP & AHA, 2011). Delays in providing this assistance can lead to lifelong deficits or even neonatal death. Infants born for in rural hospitals are at even greater risk due to limited resources to prepare for intrapartum complications. In Hawaii this is compounded with the geographical challenge of being an island state. In 2009, (when HI-CHI was established), the additional challenges in perinatal care in Hawaii was evident in Hawaii's neonatal mortality rate (death up to 28 days of age) which was 4.4 per 1,000 births compared to the nation rate of 4.18 (MacDonnau, et al. 2013; March of Dimes, 2013). From 2003-2010 the overall infant mortality rate (death up to 1 year of age) was also higher in Hawaii, 6.4 per 1,000 births, when compared to the national rate of 6.0. The numbers are even more concerning on the neighbor islands of Hawaii where the infant mortality rate ranged from 6.7 to 12.4 per 1,000 births (State of Hawaii Primary Care Needs Assessment Data Book, 2012 & Healthy People 2020).

Neonatal Mortality Rates 2009



Purpose: To improve the accessibility and quality of perinatal health services in rural hospitals of Hawaii through the creation of NRTs, education and facilitating collaboration between health facilities, healthcare providers, and the community.

Background: According to the World Health Organization one of the best means to decrease infant mortality is through the presence of highly trained healthcare personnel during the intrapartum and the postnatal periods (2012). One method of increasing the number of skilled personnel available during this critical period is through the creation of NRTs. NRTs or Neonatal Response Teams are interdisciplinary teams which typically consist of nurses, respiratory therapists, neonatologists, pediatricians, and/or Advanced Practice Registered Nurses. These teams receive advanced training in Neonatal Resuscitation and stabilization.

Creating NRTs in Rural Hawaii

- HI-CHI has partnered up with Kapi'olani Medical Center for Women and Children, the only specialty hospital in Hawaii for women and children, to provide neonatal resuscitation and stabilization training for outer island healthcare teams. This collaboration has resulted in the creation of Neonatal Response Teams (NRTs) in seven of Hawaii's outer island hospitals:
- **Honolulu:** Kona Community Hospital, Hilo Medical Center, North Hawaii Community Hospital
- **Maui:** Maui Memorial Medical Center
- **Kauai:** Wilcox Memorial Hospital & Kauai Veterans Memorial Hospital
- **Molokai:** Molokai General Hospital
- NRTs in these hospitals are interdisciplinary teams consisting of pediatricians, nurses, and respiratory therapists (depending on the preferences of the hospitals).
- The NRTs provide in-house personnel available 24 hours a day, 7 days a week to manage resuscitations requiring advanced techniques including maintaining an airway, intubation, and placement of an umbilical vein catheter. This is especially important with the provider shortage in rural areas of Hawaii, where NRTs stabilize newborns until the pediatrician arrives. Additionally, NRTs enhance each hospital's capacity for addressing the needs of at-risk newborns and for better stabilizing them before transport to the tertiary care centers on Oahu.

HI-CHI NRT Program Findings

- Data collection and evaluation of the NRT program is still ongoing.
- One study conducted by some members of HI-CHI (Neupanechar, Pomeroy, Robertson, Scott, & Kabbani, 2013) has found:
- After NRT training, NRT members report a "substantial" increase in confidence regarding preparation and ability to manage the procedural and pharmacological care of sick babies.

HI-CHI's Future Focuses

- Beginning in 2014, data for selected Clinical Quality Measures (CQMs) from birthing hospitals statewide will be aggregated in a database that is accessible to HI-CHI members who share data.
- Addressing Hawaii's High WOB - Focusing on infant mortality in Hawaii.
- Rural Residency Program - Working to increasing the number of primary care providers in rural areas of Hawaii.
- HI-CHI has a process for adopting new projects that fall within the organization's scope of activities. This process includes networking and conducting formal needs assessments of Hawaii's rural hospitals and communities in order to guide future activities.

Become a Member of HI-CHI

Are you interested in the quality of perinatal health service in rural Hawaii? Do you want to become a General Member of HI-CHI? Visit us at our website: <http://www.honolulu.hawaii.edu/hi-chi/>

References

References are available on request.

ROUTINES + SOCIAL BEHAVIOURS OF FREQUENT MOBILE COMMERCE SHOPPERS

INTRODUCTION

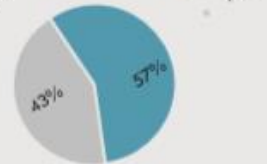
Recently, there has been widespread growth of mobile shopping and buying, termed mCommerce. With this comes a need to understand user's routines and social behaviors in mCommerce activities so we can understand how to design for the mobile space.

To address this, we conducted a diary and interview study with regular mobile device users to explore their mobile shopping activities and behaviors. Our results describe a variety of usage patterns including spontaneous purchasing and routine shopping where people gravitate to their mobile device even if a computer is nearby.

We found that the timing of mobile shopping and purchasing fell into three broad categories. People either shopped spontaneously when the need arose, as a habit/routine, or during fixed time intervals based on schedules.



DAILY TIMING + ROUTINES



"every morning I wake up, shower and everything, flip through my emails, either first thing in the morning, before I leave for work or first thing when I get to the office ... that is what I do every day, literally, every day ... if something comes in, in the middle of the night, I want to get jump on it and if there is deals within those I share with my friends."

- P17

"I went on the Internet to check my email and saw a daily deal for Groupon"

"While waiting for my train to class, I went on the Internet to check my email and saw the daily deal for Indulge and Groupon"

"Checking email while taking [train] to school this morning. Saw Groupon and Indulge daily deal..."

- P8

FINDINGS

First, nearly half of our participants (8 of 17) were highly spontaneous in their shopping habits. In these cases, participants' shopping and purchasing activities were a response to their external environment and other activities. This included triggers from activities both on and off their mobile device. For example, participants were already out shopping in person and needed to compare prices on products. They came to find that new software updates were available for their device, or they completed certain activities, such as reading a book, which prompted them to shop for and download a new book to read. Because participants carried their mobile device with them nearly all the time and most had constant internet connectivity, they were able to act on these stimuli in the moment, regardless of their location or time of day.

Just under half of our participants (5 out of 17) were much more routine in their shopping activities. Routines certainly varied across participants, but the fact that shopping activities occurred in a consistent and repeating pattern was somewhat surprising. That is, participants had a specific time and place where they shopped on their mobile device. They looked for a specific type of item or specific stores' items, and the behavior repeated regularly.

We also saw that while not necessarily routine, some participants had fixed time intervals when they would shop. That is, they would shop at a certain time, yet they wouldn't do this on a consistent basis and they weren't looking for specific items. These instances were also not spontaneous in nature.

Participants used their mobile devices for a large variety of mCommerce activities. This was dominated by shopping without purchase, followed by the acquisition of software for their mobile device (e.g., apps), and then the purchase of real-world items. Some people performed certain activities more than others, yet we did not notice any broad trends related to specific participant demographics. Thus, our results focus on practices across all participants.

28 of 181 (17%) entries related to the actual purchase of a real-world item (e.g., not software for the device) from a company. Participants bought a variety of products including 3 instances of food items, 4 instances of food purchases, 5 instances of jewelry purchases and a variety of one-off purchases such as shoes, yoga, flowers, books, clothing, and sports event tickets. 17 participants logged in to a previously created account to make a purchase; this included using Amazon and eBay apps, along with apps made by Social Grouping sites and local food stores.



PHOTOGRAPH BY: GREG SCHMIDT, a street mobile photographer from just between Washington D.C. and Baltimore, with his eye on exhibition in New York.

Serena Hillman
John Bowes
Simon Fraser University
School of Interactive Arts
& Technology

P5: Team Participation Survey

- <https://tinyurl.com/CS377QTeamSurvey>
- Due by June 3, 6:00pm
- If survey is missing, you will lose 2 points on overall class participation component of your grade (out of 15 points)

Code data

- Deductive coding: Codes established in advance
- Inductive coding: Codes emerge from reviewing the data
- Line-by-line coding: Code every utterance, atomic unit
- Categorization: Grouping individual codes into clusters
- Identify themes: Storytelling units
- Tools
 - <https://www.dedoose.com/>
 - <https://atlasti.com/>

Data analysis exercise

- Put Post-Its up in groups (5 min)
 - What worked
 - What didn't work
 - Future changes
 - Other
- Write out reasons on blue Post-Its (10 min)
 - What resources/features helped make things work
 - What problems/issues caused things not to work
- Write out unanswered questions on purple Post-Its
- Group Post-Its according to themes (5 min)
- Write headlines on orange Post-Its (5 min)

