mWork

Re-imagining the Future of Mobile Work for the Masses

Low-Fi Prototyping Assignment Write Up

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Team

Our team is comprised of Lea Coligado, Andrea Sy, Allen Yu, and John Yang-Sammataro. Each member contributes across the board to all aspects of the project. Each member also has responsibility for the primary and secondary roles respectively below:

Lea Coligado: Design and Development
Andrea Sy: Management and Design
Allen Yu: Documentation and User Testing
John Yang-Sammataro: Development and Management

Introduction

Poverty and underemployment are two of the biggest global problems in our day and age. One of the starkest examples is what we call the "micro-task gap": On one side, companies and individuals are willing to pay to complete millions of small tasks - such as determining the content of a picture - that still can only be performed well with human intelligence. On the other side, over 25 million people[1] in the United States and over 202 million people[2] around the globe are unemployed and over 3 billion people live on less than $2.50 a day.[3] These people could make multiples of their current income by completing micro-tasks. However, existing solutions such as Amazon Mechanical Turk and Samasource only allow workers with full computers to bridge this gap and pass over the increasing number of global smartphone users in all levels of society.[4]

Mission Statement

mWork is "micro-tasks for the masses." It's goal is to allow anyone to work from anywhere by connecting **clients** with micro-tasks that require human intelligence to mobile device carrying **workers** who complete this simple work. This allows clients to crowdsource important functions and allows workers to earn disposable income in their spare time.

Addendum: After our most recent interviews, we are focusing on narrowing our target customer demographic underemployed workers in the developed and developing world who have access to smartphones, email, and online banking systems. We will focus on their micro-task experiences which are severely lacking on mobile devices. Iterating on an interface for clients will be included for completion sake, but will be secondary since existing interfaces currently meet most of their needs.

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[1] Source: http://data.worldbank.org/country/united-states
[2] Source: http://www.theguardian.com/business/2013/jan/22/ilo-unemployment-numbers-rise-2013
[3] Source: https://www.dosomething.org/facts/11-facts-about-global-poverty
[4] Source: http://readwrite.com/2013/05/13/mobile-is-taking-over-the-world
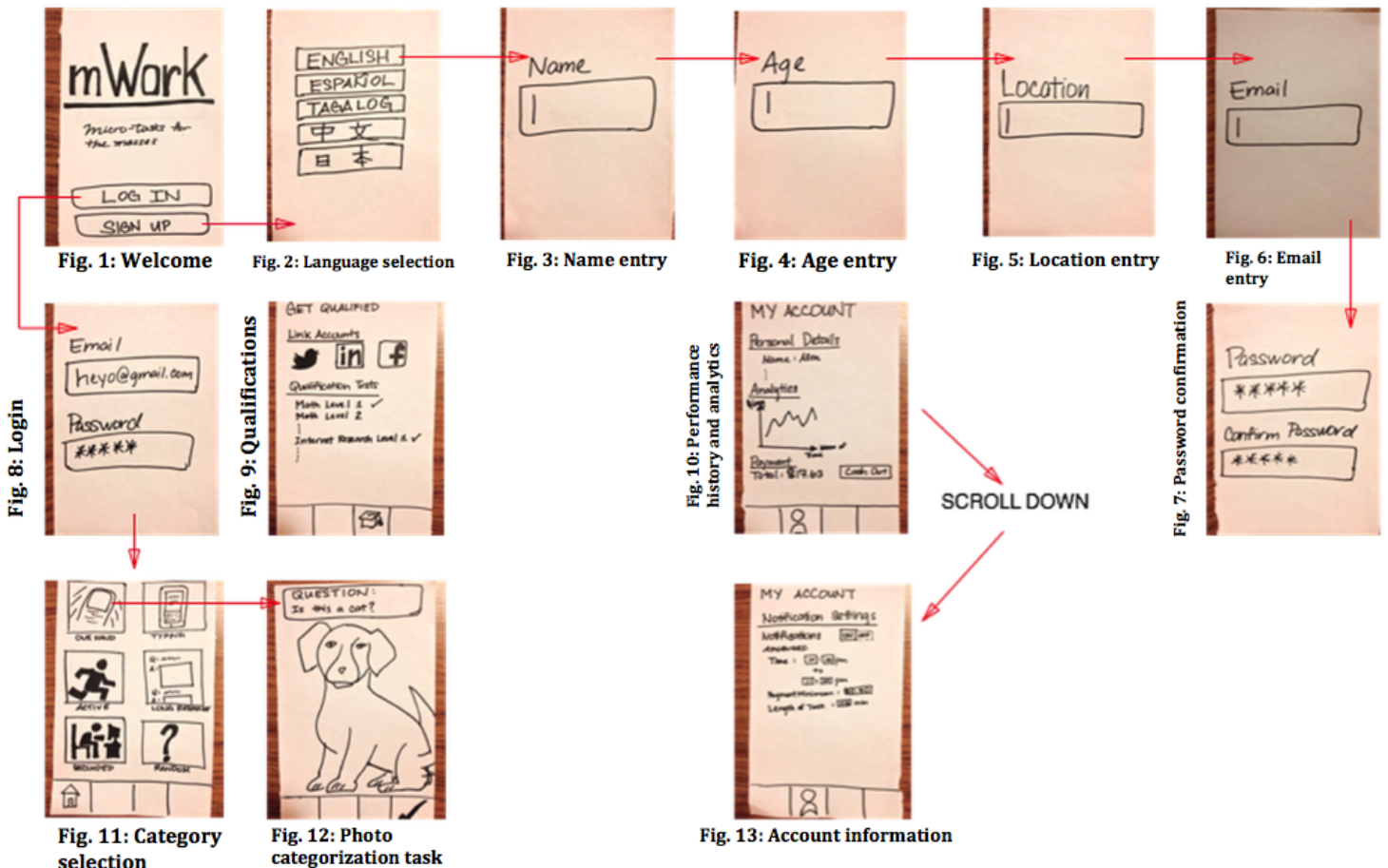
Prototype

Overview

Our low-fi prototype consisted of two parts: the main worker mobile UI and the secondary client UI. The core functionality that we wanted to test was worker interaction with the user interface to execute, find, and be rewarded for tasks on a mobile device. The mobile optimized UI we created is vastly different than any of the desktop micro-task interfaces currently available. It focuses on using a simple, clean, touch interface on a mobile device rather than larger, complicated interfaces that current exist for desktop micro-task interfaces. Furthermore, the mobile platform can make use of easier access to high quality cameras and recording of phones that make certain "freeform" micro-tasks more accessible.

Separately, we also wanted to confirm that clients could work with a basic UI that is similar to the desktop interfaces they are used to for programs like Amazon Mechanical Turk. For this part, we mocked out a simplified version of a task creator interface.

To make the interfaces we drew out paper sketches and then linked them together using POP. In some cases, such as audio recording, we user "handshaking" or manually simulating the app. This allowed us to get a prototype that felt close to a real app in scale, but was still quick and easy to develop and iterate upon:

Fig. 1: Welcome
Fig. 2: Language selection
Fig. 3: Name entry
Fig. 4: Age entry
Fig. 5: Location entry
Fig. 6: Email entry
Fig. 7: Password confirmation
Fig. 8: Login
Fig. 9: Qualifications
Fig. 10: Performance history and analytics
Fig. 11: Category selection
Fig. 12: Photo categorization task
Fig. 13: Account information
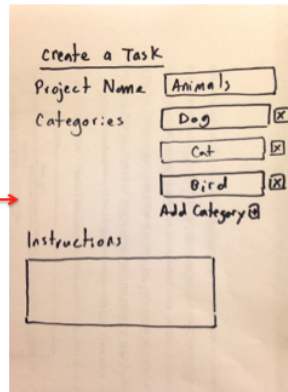
(Figure A: Mobile worker user interface flow)
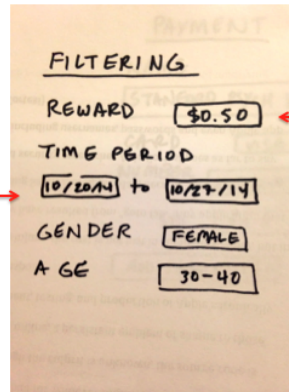
Fig. 1: Login

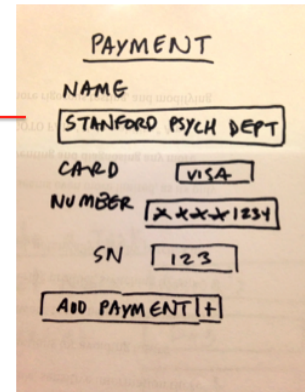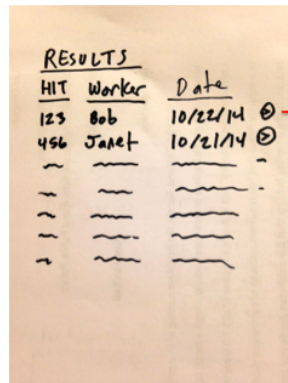Fig. 2: Task Creation

Fig. 3: Filtering

Fig. 4: Payment Method
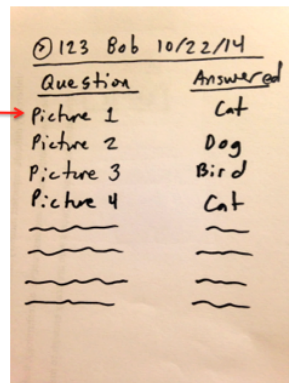

Fig 5: Results (list view)

Fig. 6: Results (profile view)

(Figure B: Mobile or desktop client interface flow)

Tasks

Our low-fi worker and client prototypes were created to allow us to test the simple, moderate and complex tasks below:

1) **Categorizing content** (*simple*) - This represents a simple task executed by the worker on their mobile interface.

2) **Matching client tasks to workers** (*moderate*) - This involves a worker choosing a task on their mobile interface and a client filtering the workforce for a given micro-task on their interface.

3) **Payments** (*complex*) - This involves a worker using their mobile interface to cash out earnings set up by a client as a reward for a given task.

We also included some additional tasks such as **sign-up** and **login** that we categorised as "super simple." We believed that his basic functionality would be worth including in the low-fi prototype while we were testing in on potential workers and clients so that we could get additional feedback.

Worker Tasks

Signup and Login (Super Simple)

After a welcome, screen users are directed to sign up for mWork if they do not have an existing account. The sign-up process is very straightforward=, consisting of language selection and entry of user information, including name, age, location, email and password. We sought to simplify sign-up by constraining each UI to only one piece of data, as shown below in Figure C:
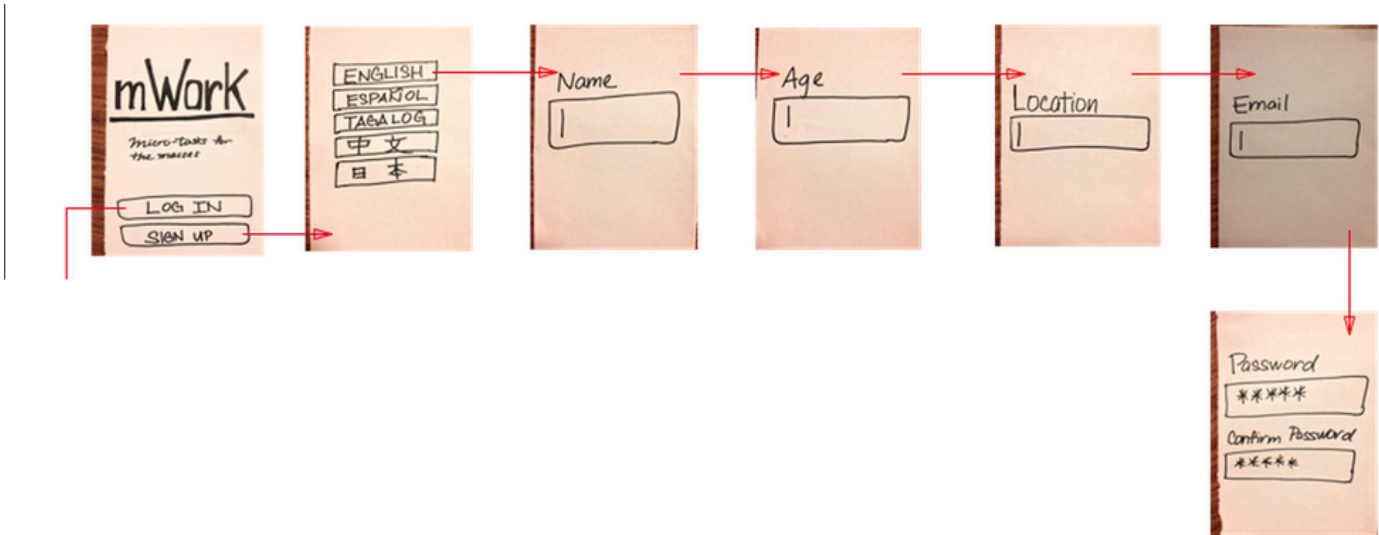
(Figure C: Worker sign up interface)

Similar to sign-up, existing users are directed to a simple login:

(Figure D: Worker sign in)

Categorizing Content (Simple)

A simple and popularly requested micro-task amongst existing services is content categorization. Workers may be instructed to place a given image under one of any number of categories or to simply swipe right or left where each direction represents one of two categories. We illustrate this "Tinder for Tasks" type of UI. Sketched below in Figure E, it focuses on presenting a simple an interface and as little information as possible to allow the user to complete a task quickly without confusion:


(Figure E: Worker interface to categorize content)

Matching Client Tasks to Workers (Moderate)

Once a task is assigned by a client, workers choose what tasks they will perform. We broke up task categories based on task type as illustrated in the icons of Figure F (below):

- **One Hand** - Categorization and similar tasks that can be completed on the go.
- **Active** - Task that may require traveling to an area to take a picture or other movement.
- **Secluded** - Tasks that are typically longer and require a quite setting.
- **Freeform** -Task that require short typing, audio, video, or picture recording.
- **Long Response -** Tasks longer than a few minutes, such as lengthy surveys.
- **Random** - Option for a worker to be assigned a random task from any of the earlier categories
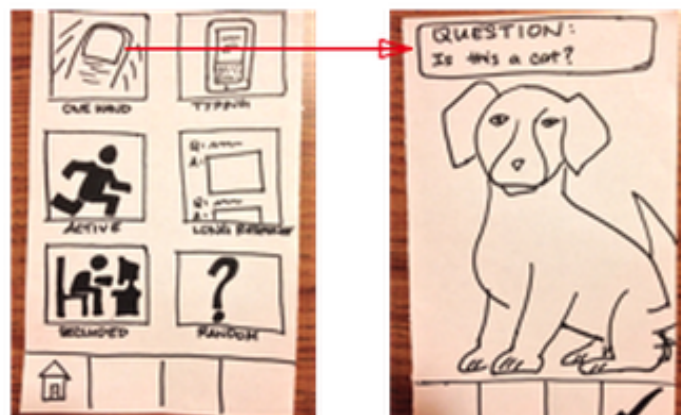
(Figure F: Worker interface for task selection)

Our complex task involved workers cashing out the rewards accumulate by completing tasks. We decided to present a UI that would allow workers to link an third party transaction system to withdraw their funds as in Figure G (below):
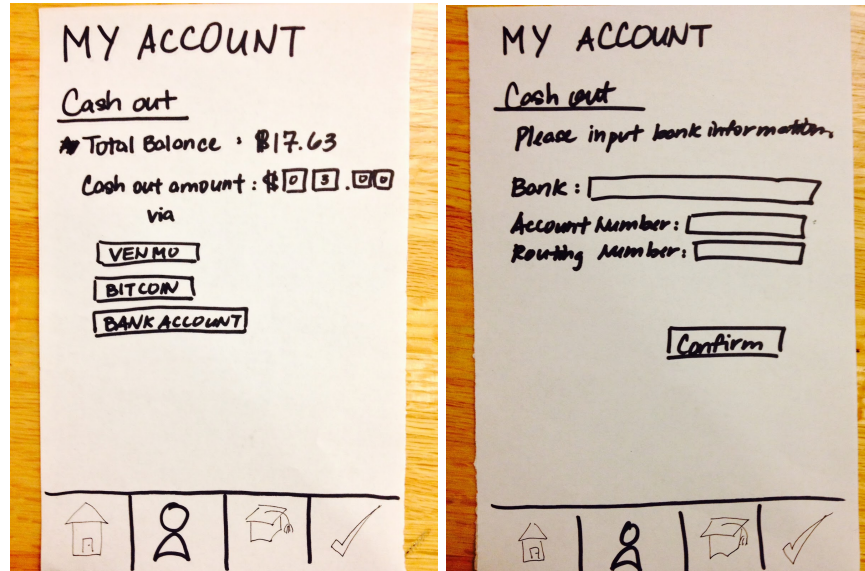
(Figure G: Worker interface for payment)

Client Tasks

Client tasks were of secondary importance since the our main effort was put into designing a unique worker interface. However, client interaction is still a critical part of the entire mWork system that fits into the three tasks described earlier.

Micro-task Creation (Complex)

Clients may easily create tasks and their corresponding instructions and content via direct text entry or drag and drops. The UI below displays direct text entry of categories to be chosen among by the worker. We used "handshaking" to simulate the drag and drop:
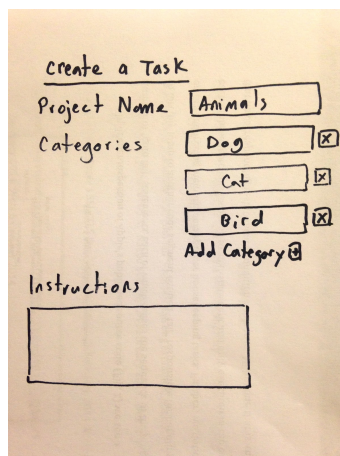
(Figure G: Client task creation interface)

Task Workforce Filtering (Medium)

This screen sketch gives an example of how clients may put filters on the types of workers that can complete a given task. This includes compensation amount, available time period of the task, and demographic factors like gender or age:
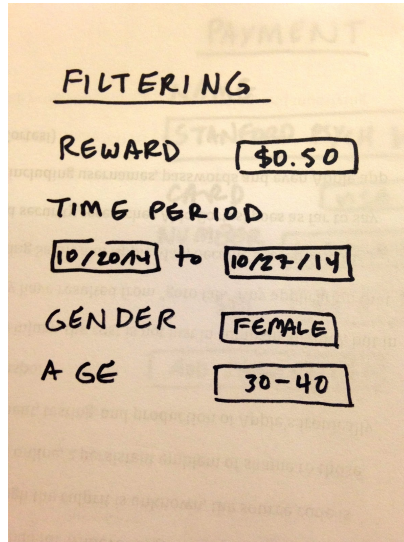
(Figure H: Client's user filtering interface)

Result Viewing (Simple)

Our simple task for clients involved viewing the results of a tasks completed in aggregate and individually as demonstrated on the two screens below where tapping on the left drills down into the results for a specific worker.
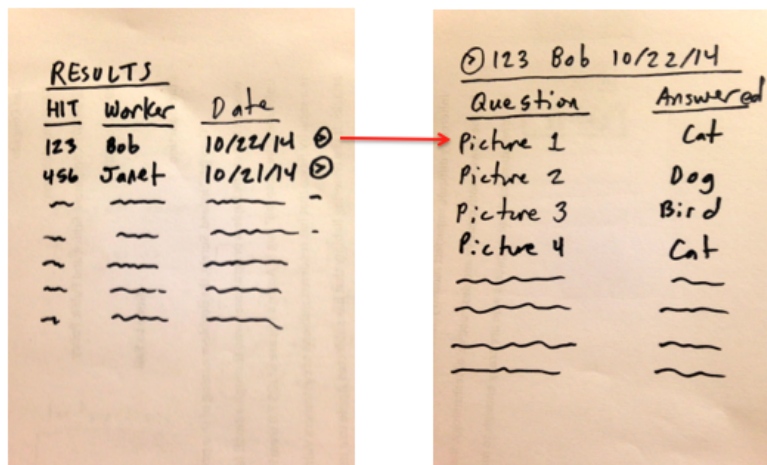
(Figure I: Client result viewing screens)

Method

Participants, Environment and Compensation

Workers

Before these user tests, our aim was to allow any potential worker anywhere to complete micro-tasks. We wanted to interview these participants "in situ" so that we could see how they might work with the application in their normal environments. Our first two users were two unemployed, homeless men we met in Palo Alto. They were important test workers because they represented an extreme group within our target demographic that we were trying to reach. We started a conversation with them early in the morning and offered to buy them breakfast in exchange for our interview.

Our third worker was an executive assistant in the Philippines that we contacted via Skype. She was an example of a developing world user who frequently used her mobile phone and had spare time in between tasks. She was more technologically literate than our first two subjects but as a Filipino from Manila, she had different habits of using her smartphone and gave us some helpful insights on how people in Asian countries might use our app. We interviewed her from her home and compensated her with a small paypal payment.

Client

We contacted a Stanford Social Sciences lab manager with experience posting micro-tasks as our client subject. We ran the experiment in her office from where she normally runs micro-task studies and compensated her with a thank you note and chocolate. The client interface of the application is of secondary focus so our interview was not as extensive as with our worker subjects.

Procedure

John acted as the main facilitator while Allen took notes. Andrea and Lea observed and asked the customer questions regarding their experience throughout the process. We first inquired about their background to have a better context in which we were testing our application. John then explained the app and instructions and asked the customers to ask questions whenever they are confused. Participants needed various levels of guidance. The two homeless men, participants 007 and 1299 were particularly unfamiliar with technology, John assisted them to complete tasks, but gave no direct guidance on how they should use the app.

We went through the tasks sequentially and throughout the process we asked participants for feedback. We noted what kind of actions they tended make, such as pressing the checkbox button upon completing a task. It was important for us to note their instinctive actions so that we could make design changes later accordingly. After they completed the tasks, we asked for their general feedback on the usability of the application, what was clear, what was confusing, and if this was an application they would download and use. We also took note of their reactions and their general emotion while using the app.

The completion of the tasks typically took around around 10 minutes. Learning about their backgrounds could take up to 1 hour, and debrief was about 15 minutes. Guidance ranged from in person assistance (such as we we realized that participant 007 could not use his hands easily due to a disability) to additional verbal explanations (such as describing additional information to participant 005 over Skype).

Test Measures

Our key goal was to evaluate how easily workers could complete tasks on our mobile platform and how much affinity they had to complete further tasks afterward. One of the main objectives of mWork is to provide an easy to use interface that seamlessly integrates into their daily lives. We looked at how quickly the users could figure out how to navigate the app and what each icon means. The time it took to start completing tasks was taken into consideration because it is important for users to start making money as fast as possible for them to keep using the app. We also noted the time it took to complete a certain number of tasks to measure the ease and convenience of our app. In addition, it was important to note how annoyed or bored the users were after using the app because that would affect our user retention rate.

We evaluated our simple client interface with test measures in a similar way: How easy was it for clients to create tasks? Furthermore, we asked clients what minimal interface would be acceptable for creating and distributing tasks as compared to existing interfaces.

Results

Overview

Overall, our results from our experiments can be broken into three categories: results from our homeless subjects, results from our developing world subject, and results from our client. In the first case, we encountered subjects with vastly different needs and impairments from what we expected. In the second and third cases we validated our general designs for one subset of our original target demographics and got valuable feedback on how to iterate upon our UI.

Workers: Homeless Men in Palo Alto (Participants 1299 and 007)

Our results for participants 1299 and 007 were focused on our learnings about the homeless population as a demographic vastly different than we expected. Our two participants were much less familiar with micro-task technology than we expected. We also found that they had much greater challenges outside of simple user interface confusion. Primarily, their unfortunate situation was overshadowed by alcoholism and disabilities that made it hard to focus on details such as the user interface of an application that they might use.

The two participants initially didn't understand the purpose of the application so 1299 suggested that we include a short description in the introduction screen. It was interesting that 1299 tried to swipe down instead of left for next. We also found that our sign-up/login was an issue for people who do not have emails or do not use computers often. For simple tasks, they could do it successfully but were sometimes confused by the icons and what to clicked next. Icon clarity and linear flow is an area we will focus on for the next iteration. Some of the different tasks were also difficult to understand for people unfamiliar with technology. They also do not understand the process of clicking the record button to record, speaking into the microphone, and then pressing stop. We need a more intuitive system for people to record audio. 007 said he was naturally drawn towards the active icon which means that it is a successful design. We need to reevaluate our other designs to determine how to make them more appealing. When receiving their payment, we ran into the issue that they had no bank accounts or credit cards. There were also checkboxes on screen which misled them to press it to cash out. An issue we need to consider is the different forms of

payment and which forms would be most accessible. Overall 1299 and 007 enjoyed the user experience, found it manageable to learn, and interesting enough that they would consider doing it again.

Worker: Executive Assistant in the Philippines (Participant 001)

Our interview with the Filipina executive assistant confirmed that mobile phone users in the developing would be a good worker demographic to target. 001 thought the sign-up process was quick and simple. She found the one hand single task confusing at first glance, but after she understood it the process went smoothly and quickly. She is more experienced with technology than 1299 and 007 so she figured out a lot of it on her own quite rapidly. Overall she really liked the interface and thought it was intuitive. However, she wanted a more complete payment procedure and suggested three improvements: printed copy of online payment, PDF copy of online payment, and email notification of online payment. These will be taken into account in future iterations. She found the experience enjoyable and convenient and she said she would use the app when it comes out.

Client: Stanford Social Science Lab Manager (Participant 005)

We interviewed 005 with a secondary priority and confirmed that a minimum client interface would still be useful for task creators and allow us to focus on the worker interface. We learned that 005 prefered Google form-like models of data entry, including the ability to drag and drop certain questions and subsections. Existing services like mTurk typically use third party services for creating forms, and clients desire a simple, intuitive means of task creation to eliminate need for this middleman. She responded very positively to the filtering option as it allows them to target the audience they are seeking without having to scuff responses from outside that demographic. Lastly, she highly values the option of exporting data in .csv format, so we plan on integrating this feature.

Discussion

Regarding our overall UI, our results taught us the importance of making task creation as easy as possible for clients and task selection and navigation as easy as possible for workers.

Clients highly value ease of constructing tasks--and not having to utilize or pay for third-party services to do it. Thus, we aim to make task creation as seamless and intuitive as possible, perhaps through features like dragging and dropping subsections, as well as make results exportable to CSV for clients to use in deeper analysis. Since they responded very well to the filtering feature, we may add more filters for increased tailoring of the target audience.

On the other end, we learned workers were confused by our icons in the task menu, which we had originally assumed would be enjoyed for the availability of choices, and we will remove some of these options to keep the task menu as minimalistic as possible. They also found the flow from the task menu to individual tasks a bit unwieldy, so we will cut out steps between choosing a category and finding a task such that choosing a task category immediately renders a task. While we had believed free-form tasks would be highly favored for their flexibility of data entry (voice, audio, video, etc.), we learned workers found this variety of data entry a bit bewildering and unintuitive. Thus we can provide more detailed UIs for more intimately guiding workers through these processes, i.e. for a task that asks the user to sing "Happy Birthday," stepping workers through pressing the "Record" button, holding it down while singing, and releasing the button when finished.

The most surprising conclusion we made from our results is that there are larger situational issues at play in the way workers interact with the prototype than UI alone. As mentioned, we found that against our assumption that email is universal, two of our worker candidates only had home addresses as points of contact. Thus we found that while a large majority of our intended consumer base may have mobile phones, they may not have all the underlying features like emails or credit card numbers that we take for granted. Given these textual problems, we need to narrow our intended user base correspondingly to those demographics that possess the technical foundation for which our app is best fit. Namely, *we rule out the homeless population as an intended worker audience* since based on our research, they may not possess the resources like email to benefit most greatly from mWork. We will continue to target the underemployed in both developing and developed nations since they largely have the technological foundation (and mobile phones) to make the most of our app.

In summary, we learned a number of ways that we can iterate upon our worker interface in addition to some valuable feedback for tweaks to our secondary client interface. Our biggest takeaway from this exercise was our newfound understanding in needing to narrow our target demographic further. One key aspect that low-fi prototyping did not allow us to test is how our more narrow target users (underemployed in the developed and developing world) react to using our application on a longer term basis. Task fatigue might be an issue that we might explore in further exercises coming up.

Appendices

Worker Testing Heuristic

Problem	Location	Severity Rating	Possible Fix	Task Number
Cannot login because user does not have an email account and doesn't use computers often.	Signup / Login	4	Refocus and redefine our target audience to ones with access to email and online payment	1
Thinks first intro screen is confusing	Signup / Login	0	Linear flow with only one option may be better	1
User tries to go backward by clicking on the checkbox on the bottom right corner	Task Page	1	Have clearly labeled text-based buttons instead of symbols	2
User seems uncomfortable conducting the speaking task	Task Page	2	Educate the user on what the tasks will be used for. Not an urgent problem because most current Mechanical Turk workers are used to this types of tasks.	2
User has not heard of bitcoin	Payment	2	Make sure to educate the user through an initial tutorial. Even if they do not use bitcoin they can use the bank account option.	3
User thought linking to bank account was confusing	Payment	3	Make flow easier to understand by having clear directions	3
Confusion over which buttons to press after cashout was successful because there were a lot of buttons. Not an intuitive flow.	Payment	3	Tell the user exactly what they need to do by having "click this button" or reducing the number of buttons	3
Thought that it was a dishonest way to make money	Payment	0	The user was convinced	3
Navigating the bottom buttons was confusing because user was not sure what the symbols meant	Task Page	2	Use text instead of symbols	2

Severity Ratings:

0 = The team does not think that this is a usability problem

1 = Cosmetic problem. Need not be fixed unless there is extra time.

2 = Minor usability problem. A low priority fix.

3 = Major usability problem. A high priority fix.

4 = Usability catastrophe. Need to fix right now.

Client Testing Heuristic

Problem	Location	Severity Rating	Possible Fix	Task Number
How can the client ensure that information is secure	Login Page	2	Add more questions to verify validity of the client	1
Tedious to manually generate surveys each time	Task Creation	2	Have pre-existing Qualtrics or Google Docs sample surveys available for use	2
No way of knowing more detailed information about task results eg. how many people have completed a task	Results Analysis	2	Have more detailed reports on the progress of different tasks	2
Uncomfortable with sending money to strangers	Payment	3	Set up further secure verifications for our users	3

Severity Ratings:

0 = The team does not think that this is a usability problem

1 = Cosmetic problem. Need not be fixed unless there is extra time.

2 = Minor usability problem. A low priority fix.

3 = Major usability problem. A high priority fix.

4 = Usability catastrophe. Need to fix right now.

Consent Form

CS147 mWork Consent Form

The **mWork** application is being produced as part of the coursework for **Computer Science course CS 147** at **Stanford University**. Participants in experimental evaluation of the application provide data that is used to evaluate and modify the interface of **mWork**. Data will be collected by interview, observation and questionnaire.

Participation in this experiment is voluntary. Participants may withdraw themselves and their data at any time without fear of consequences. Concerns about the experiment may be discussed with the researchers (**Andrea Sy, Allen Yu, Lea Coligado, and John Yang-Sammataro**) or with **Professor James Landay**, the instructor of CS 147:

> James A. Landay
> CS Department
> Stanford University
> 650-498-8215
> landay at cs.stanford.edu

Participant anonymity will be provided by the separate storage of names from data. Data will only be identified by participant number. No identifying information about the participants will be available to anyone except the student researchers and their supervisors/teaching staff.

I hereby acknowledge that I have been given an opportunity to ask questions about the nature of the experiment and my participation in it. I give my consent to have data collected on my behavior and opinions in relation to the **mWork** experiment. I also give permission for images/video of me using the application to be used in presentations or publications as long as I am not personally identifiable in the images/video. I understand I may withdraw my permission at any time

Name _____

Participant Number _____

Date _____

Signature_____

Witness name _____

Witness signature_____

Interview Script

Context

We want to find participants "in situ" in an environment that they might use the application (e.g. somewhere in their daily lives).

Ask

Hi! Would you be willing to take 10 to 15 minutes to share some feedback on a simple user interface? We are conducting an experiment to evaluate a mobile application interface of a project we are building for Stanford's CS147 class. We have a digitally enhanced paper prototype with some features that we will manually simulate.

Goal

The goal of our experiment is to evaluate the usability of the interface that we are prototyping. All of your interactions and reactions to the interface are important, so please let us know any thoughts you have as you work through our prototype.

Additional Information

As part of our user testing, we are keeping the test results confidential and assigning a participant number for our report. Your results and perhaps your name only may be discussed within our class. We have a simple consent form to sign here.

Introduction to mWork

The application we are prototyping is called mWork. The goal of the application is to allow anyone in the world with a mobile phone to complete micro-tasks on their device. Most tasks such as picture tagging can be accomplished in odd hours or down time. Some longer tasks such as audio recording or experimental surveys require active involvement or longer periods of work.

Experiment

For this experiment, we are going to ask you to use a rough prototype of the application we have created using the application called POP. The POP application runs on a mobile phone that we will give you and links the paper sketches we have taken pictures of into a rough flow of our application.

Experiment Flow

We will ask you to open up this application and navigate it to perform a few major tasks. Because of the limits of POP, at certain times when you move to execute a specific action, such as typing into a field, one of our teammates may ask you to pause, and will simulate this action (since POP itself cannot). If you get stuck or confused at any time while using the interface, please slow down and let us know while we observe so that we can take note and act at the "machine" if you are executing something in the application prototype that we will need to simulate by hand.

Feedback

Any and all feedback is valuable, so please let us know any thoughts you have while using the prototype.

Tasks (Worker)

Tasks were then described as needed to allow participants to understand their objective for each task:

Tasks 0 and ½

Now opening the POP application lets try to sign up for an account and then sign into the application…

Task 1

Okay, now how would you navigate to a task that you might perform while on the go…

Task 2

Next, let's navigate to a freeform task…

Task 3

Now if you had completed a number of tasks and wanted to cash out your earnings, where would you look in the application?

Tasks (Client)

Task 1

Based on this interface, how would you go about creating a task based on your intuition?

Task 2

Next, let's filter participants similar to the demographics you have chosen for one of your recent studies…

Task 3

Now pretending that you have data from a set of tasks you have run on this interface, how would you navigate to those results and how would you try to view the data?

Recap and Summary

- What do you think about this experience?
- Would it bother you?
- What was easy to accomplish with this interface?
- What was confusing to accomplish with this interface?
- What would make it easier to navigate and complete tasks on this interface?
- What kinds of tasks would you prefer to complete on this interface?
- When would you use this application if it were available?
- Could you see yourself doing this on a daily basis?
    - How often would you complete these tasks?
- What would be compelling monetary compensation (for each of the tasks?)
- What would be your preferred method of cashing out your earnings? Was the current setup understandable?
- Would you refer to a friend to this application if it were implemented?
- Additional suggestions/feedback...

Interview Notes

Interview with 1299 and 007 - Workers

On a Wednesday morning at 7AM, we trekked to Palo Alto in search of potential users for mWork. As we were walking down the street, we met two men on the side of the street, one in a wheelchair and the other with a walking cane. We approached them and asked if they would test our prototype as they were good representations of our target audience. To show our gratitude we bought them breakfast afterwards.

We used ID numbers instead of real names for confidentiality issues. We talked for an hour and a half with them to learn more about their backgrounds and challenges in their lives to help us better understand how to help them.

1299 - Background

1299 is from Philadelphia and came out to Palo Alto when he was 20. He talked about how there were strong family unions in Philadelphia, unlike in California. He felt very alone here and had trouble supporting himself. He had worked in construction all his life until he broke his hip and 9 months ago and could no longer work. He used to take medication but stopped because it made him so sleepy that somebody once thought he had died. As a result, he stopped taking the medications which led to worsened conditions. He also has dyslexia; he can read but cannot write. His birthday is in a few days and he's travelling down to Sacramento to visit his nieces and nephews' kids. He has no family of his own. He is also taking his paperwork to file for disability benefits there in hopes that he would have get more assistance.

He says his biggest problem is alcoholism and that led him to lose his job. He drinks now because he has nothing else to do. He used to do drugs in the past to kill the pains of reality but he no longer does them. Despite all his misfortunes, he has a optimistic take on life and wishes the best for others. He says that "no one should live a life like his" and he frequently greets other pedestrians on the street. He has a strong willpower to live and said that that was what has kept him going for so long. He and 1299 both have addresses and get mail through the Opportunity Center (OC).

1299 could read but had difficulty writing so he could not perform the written tasks. Login would also pose a slight problem.

1299 Testing UI as a worker

Task 1 - Signup/Login
- Tries to swipe down first for next
- Problem with login information since he does not have emails and doesn't use computers often
- Possibly add an explanation at the intro screen to explain what this app does

Task 2 - Completing different tasks
- First clicks on recording one
- Tried to go back by clicking the checkbox button (clicked on checkbox a lot)
- Pauses for speaking task, seems uncomfortable

- ○ "Who am I really?"
- ○ "Love to have fun"

Task 3 - Payment
- ● Clicks a checkbox to cash out
  - ○ We noticed there were too many checkboxes and they were confusing
- ● Have not heard of bitcoin
- ● Thought linking bank account was pretty confusing
- ● Send a card my be easier
- ● Click cashout again at success screen instead of done
- ● Thought it originally sounds like a dishonest way to make money, didn't think they would actually get money
  - ○ Doesn't think tapping buttons should make money
  - ○ But after explaining he said he would try it

007 - Background

007 was born in Palo Alto and lived right down the street. He used to be a painter. He painted in all forms including oil, watercolor, acrylic, clay art, and pencil drawing. He received an AA from a community college. Unfortunately, he can no longer use his hands due to spinal meningitis. He is also a veteran who fought in the Marine division in Vietnam. When asked about benefits, he claimed that disabilities benefits are easy to file but VA benefits are much more difficult because the people aren't nice. When asked about where he goes, he says that he often visits the Opportunity Center. However, he is not as welcome there anymore as there is a new rule forcing disabled people who are not looking for work to go after 9:30AM instead of 8AM when it opens. This means that he has to wait 3 hours to get to speak to somebody.

007 used to use the Housing 1000 list which is a list from the Opportunity Center that offers cheap, subsidized housing. However, he invited a friend over and his friend got kicked out because of violent activities, and as a result he was also asked to leave. He used to have a good case worker but he no longer has one and now he stayed in the same place in Palo Alto. It is interesting to note that a firefighter came by midway during our interview to give him a package of goods. It seems that he has friends here and people to help him out. He also took out a bottle of vodka but then hurriedly put it away. He admitted that he, too, has a problem with alcohol.

Since 007 cannot use his hands, John presses the buttons for 007. He also has some difficulty speaking at times. He was a great test subject because he represents our target audience segment that is unfamiliar with technology.

007 - Testing UI as a worker

Task 1 - Signup/Login
- ● He thinks the first screen is confusing, just doesn't understand it at all
- ● As he has not used a phone before, this is expected
- ● Means that we need to develop an app that is more intuitive and have to consider UI from the perspective of non-technical personnel
- ● Linear flow with only one option on each screen may be better
  - ○ They would know what to press

Task 2 - Completing different tasks
- He thinks the Interface is confusing, doesn't know how to record for our audio tasks
- The audio task was also confusing in that they didn't understand what they were supposed to say
- Understood buttons fine
- Doing the actual tasks was easy

Task 3 - Payment
- Tapping active for cash out
- Press payment to cash out instead of the cash out button?
- Clicking payment to go back?
- Say what you could do would make it easier
  - "Click this button"
- Like the active icon (naturally drawn towards it)
- Navigating the bottom buttons were confusing (not sure what the symbols meant

Interview with 001 - Worker in Philippines

We contacted people in the Philippines to try to find a Filipino worker to test our prototype. Since workers in developing countries are part of target demographics, this would be a good representation. It would also be useful since they are from a different country and may have different experiences or user habits than Americans.

Background
001 is a Filipina from Manila and works as a executive assistant during the day. She uses her iPhone extensively for communication and would not mind making some extra disposable income. She works primarily from home. Formerly, she worked as an outsourced procurement manager for CitiGroup UK (from the Philippines) but has since moved to an executive assistant role after operations at her former bank were consolidated to Eastern Europe.

Testing - UI as a Worker

Task 1 - Signup/Login
- The Log in flow looks fine it requires the basic information needed for a user.
- Suggest that we add as basic requirement the "Gender" to be filled out by the user?

Task 2 - One Hand Single Task
- Confusing at first glance like I need to check first on the proper flow before I can proceed
- Maybe more instructions
- Not intuitive

Task 3 - Completing complicated tasks
- It looks fine and easy to understand the questions and requirement of the tasks
- Images can be clearer / more intuitive
- Thought layout looked great

Task 4 - Payment
- No significant problem
- More options
- Suggested Printed copy of the Online Payment - an option that will enable user to print a copy of the payment made.
- Suggested PDF copy of the Online Payment - allow the user to select an option to save a PDF copy of the payment made as reference.
- Suggested Email Notification of the Online Payment - user will receive notifications of the payment made via email as another reference.

Interview with 005 - Client

We asked 005, a worker in the Psych SONA department, to test out the client interface for mWork. She is originally from Montana and lived in Los Angeles for 10 years. She graduated from UC Berkeley and worked at the as a manager at the Social Psych Lab there. The professor she was working under moved to Stanford so she followed him down as well. She is now the manager at Stanford's Social Psychology Lab. Her job includes designing and programming social psychology studies, giving advice to researchers, finding participants for studies, and submitting proposals to the Institutional Review Board (IRB). She is a regular user of Amazon Mechanical Turk so she is familiar in creating micro-tasks.

She discussed in depth about SONA, the organization system for Stanford studies. The studies are divided up between online and in-person. Most of the in-person studies are done with Stanford faculty and students. The online studies include participants beyond just Stanford affiliated personnel. Some modes of surveying these people include Mechanical Turk and Craigslist. She does not like the SONA system because it's very clunky and rigid and not very user friendly. However there isn't a better alternative so she's forced to use it. For online studies, she likes using Amazon Mechanical Turk because she can pay people directly, unlike with SONA.

Testing - UI as a Client

Task 1 - Micro-Task Creation
- Liked how it was quick and simple
- Layout could be better spaced so it's easier to distinguish between the fields
- Add in more potential features
- Add in feature for a pre-screening Qualtrics survey or something similar for surveys
- More customization on how and where the results are saved
- Flow pretty intuitive

Task 2 - Filtering Workers
- Options are clear
- Would prefer more options but she understands that it is just a first prototype
- Would like more specific options as well - i.e. ways to determine if somebody has done the task
- Generally very easy to use
  - Good for her researchers with no technical background

Task 3 - Setting up payment
- May need more secure verifications
- Provide alternative ways of payment, not just bank accounts
  - i.e. gift cards, special monetary cards, Amazon dollars
- Would like more analytics to keep track of the payment
- More graphs would be nice
  - Visuals are important
- Want it to be downloadable in .csv format
- Would like automatic result filtering based on attention questions etc.