

Supplementary income generation through

# Micro-Tasks

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Internal Guide   Prof. Anirudha Joshi (IDC, IIT Bombay)

External Guide   Aishwarya Ratan, Bill Thies  
(Technology for Emerging Markets Group, Microsoft Research India)

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Shashank Khanna | M Des. Interaction Design 2008-10

Introduction

User Study

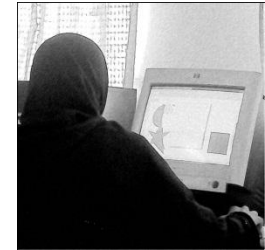
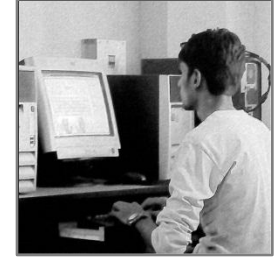
Research

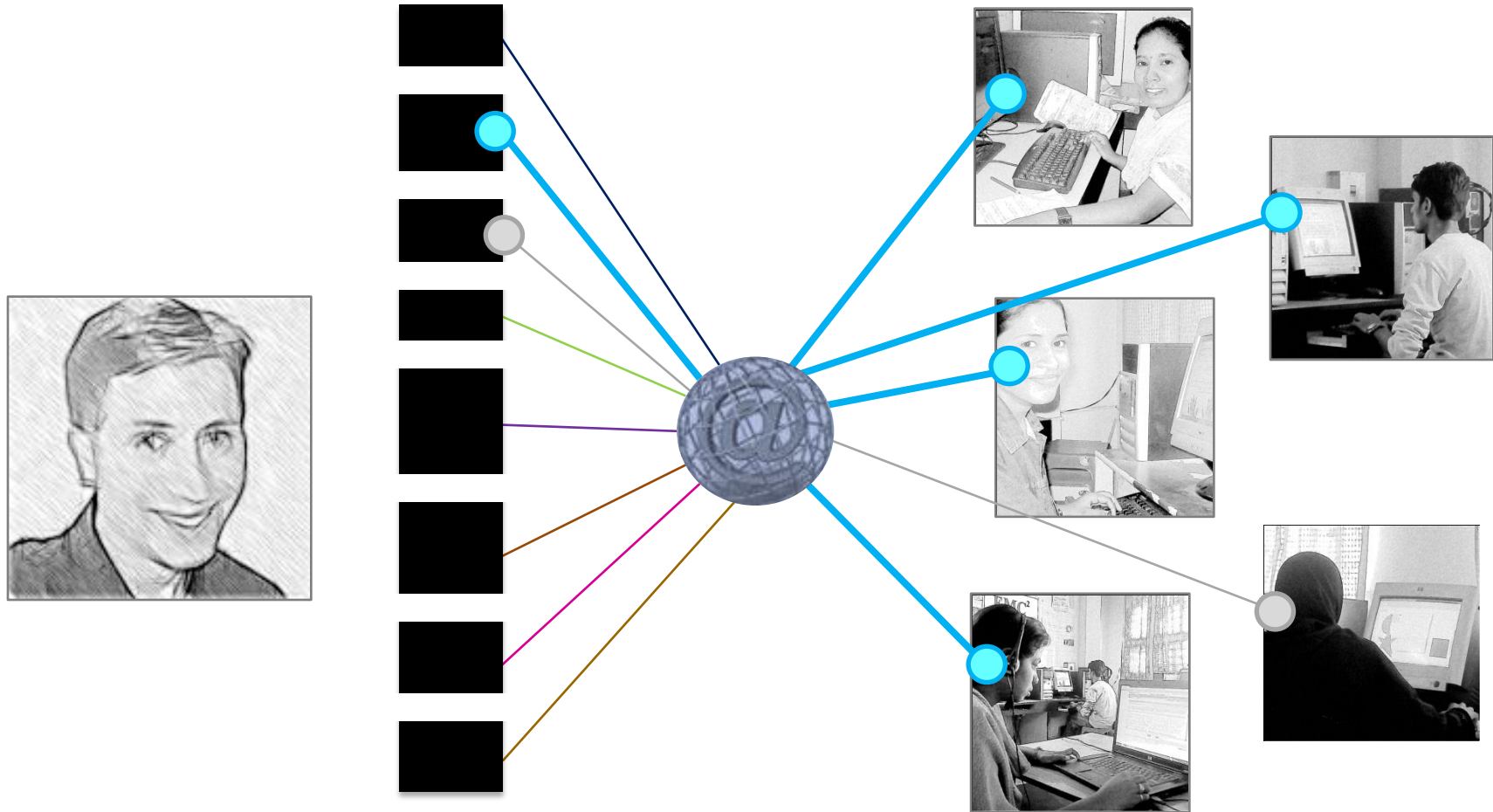
Design Exploration

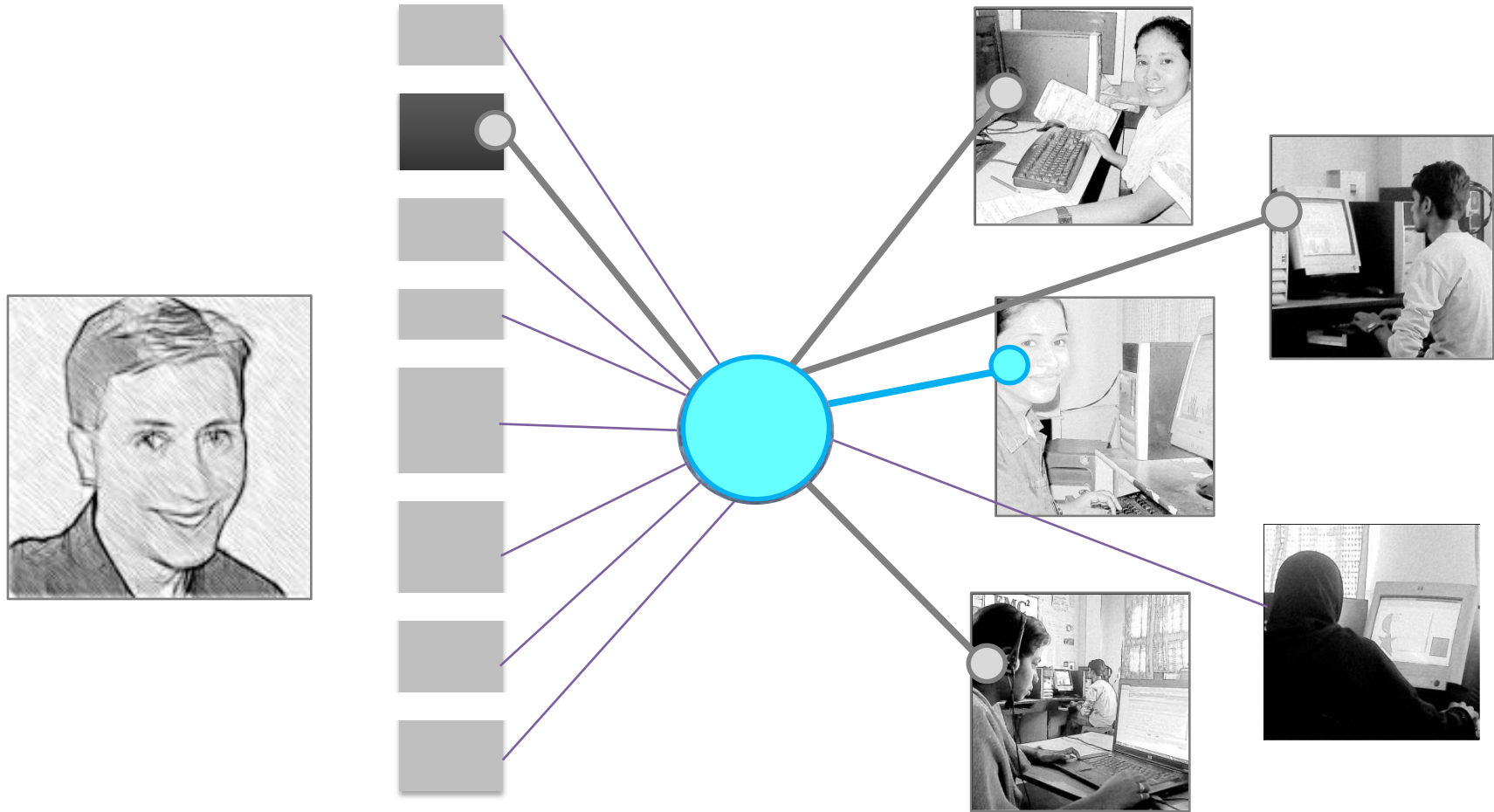
# Micro-Tasks / HITs / HPU



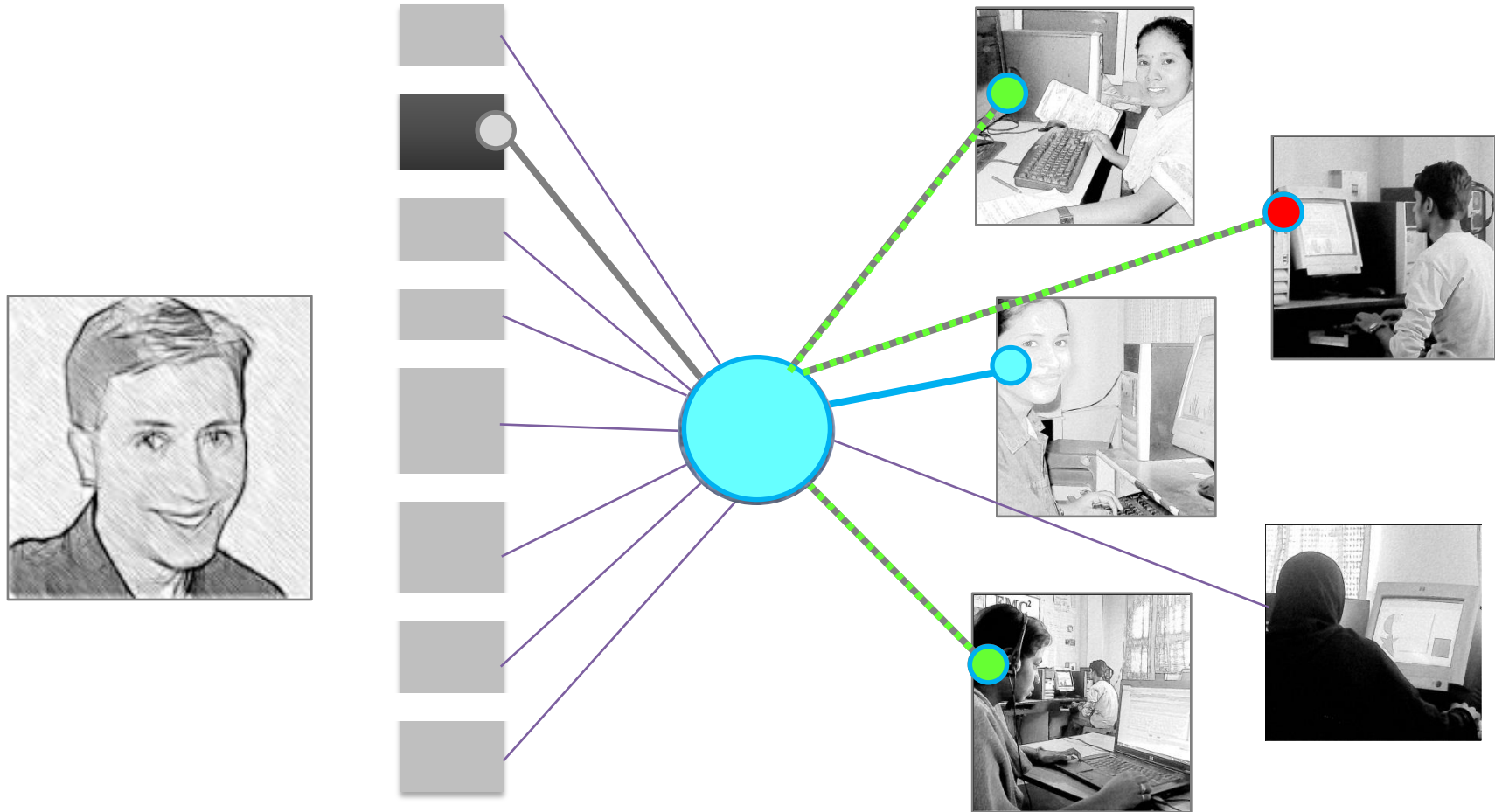


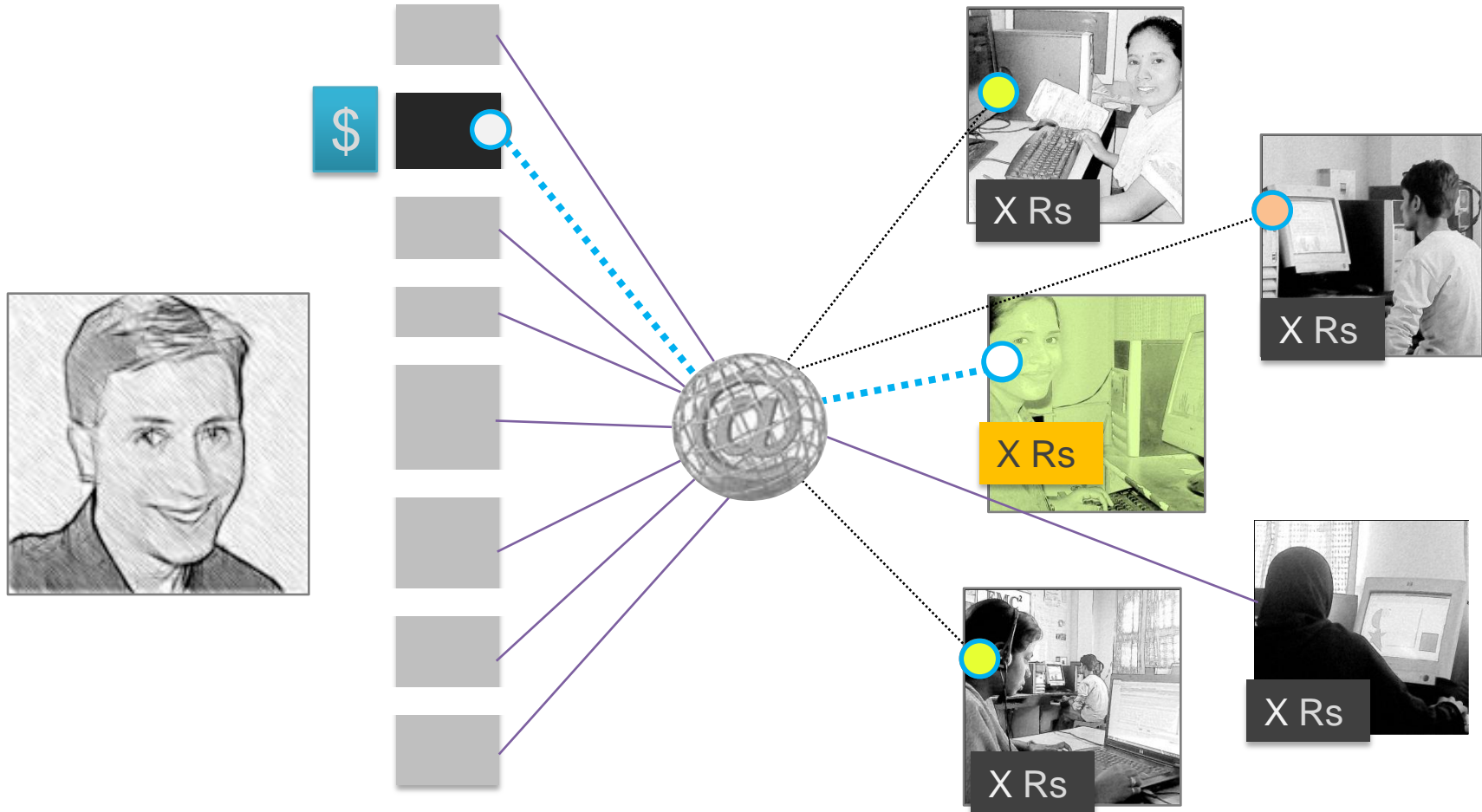












Earn

Access

Availability

Arbitration

[Your Account](#) [HITs](#) [Qualifications](#)

Introduction | [Dashboard](#) | [Status](#) | [Account Settings](#)

**Mechanical Turk is a marketplace for work.**  
We give businesses and developers access to an on-demand, scalable workforce.  
Workers select from thousands of tasks and work whenever it's convenient.  
**59,241 HITs** available. [View them now.](#)

## Make Money


by working on HITs

HITs - *Human Intelligence Tasks* - are individual tasks that you work on. [Find HITs now.](#)


**As a Mechanical Turk Worker you:**

- Can work from home
- Choose your own work hours
- Get paid for doing good work


**Find an interesting task**



**Work**



**Earn money**



[Find HITs Now](#)

or [learn more about being a Worker](#)

## Get Results


from Mechanical Turk Workers

Ask workers to complete HITs - *Human Intelligence Tasks* - and get results using Mechanical Turk. [Register Now](#)


**As a Mechanical Turk Requester you:**

- Have access to a global, on-demand, 24 x 7 workforce
- Get thousands of HITs completed in minutes
- Pay only when you're satisfied with the results


**Fund your account**



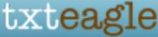
**Load your tasks**



**Get results**




[Get Started](#)



Empowering the largest knowledge workforce on Earth.

[ABOUT](#) [SERVICES](#) [PARTNERS](#) [CONTACT](#)



There are over 2 billion literate, mobile phone subscribers in the developing world, many living on less than \$5 a day.

Corporations pay people to accomplish billions of image, audio and text-based tasks.

txteagle enables these tasks to be completed via the mobile phone by people around the globe.

**For clients:**

txteagle connects corporate clients to the world's largest knowledge labor market: the 2+ billion literate mobile phone users distributed throughout the developing world.

**For users:**

txteagle enables mobile phone subscribers around the world to earn small amounts of money or airtime in exchange for work.

**For service providers:**

txteagle provides its mobile operator partners with a unique value proposition, giving their subscribers the ability to do work and earn money.

*"txteagle is changing the dynamics of outsourcing labour." BBC.*

© 2010 txteagle Inc.

samasource

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[press](#)

[blog](#)

connecting women, youth and refugees to life-changing work via the internet



[Customers](#)

[Service Providers](#)

[Supporters](#)

**supporters**, [learn more](#) about the Samasource mission. Spread the word online, and send [digital gifts](#) to everyone you know. Your [donations](#) and [volunteer time](#) have helped generate \$400,000 of income for 550 workers.

**Mission 4636**

from [CrowdFlower](#)



02:40



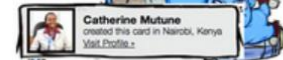
||||| :: [vimeo](#)

**Mission 4636**

We need your help translating Creole and French messages to English. [Join now](#) or [learn more](#).

## Exclusive Valentine's Gifts

Created for Samasource by the notorious San Francisco artist and muralist [Sirron Norris](#) and personalized by Samasource workers. [Send them to friends and lovers!](#)



**Catherine Mutune**  
created this card in Nairobi, Kenya  
[Visit Profile](#)

## Volunteer for Haiti

Mission 4636: A free phone number (4636) was established to meet the urgent needs of the Haitian people through SMS messaging. We need your help translating Creole and French messages to English. [Join now](#) or [learn more](#).

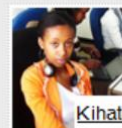
## Featured Workers (Daprom)



**Stephen**




**Kimi**



**Kihato**

## Selected Press

"Samasource is challenging the dominant perspective,"  **CNET.com** Michael Maltese said, "which is that poor people...are to be seen as recipients of aid. But the approach that Samasource and other





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### humangrid marketplace

Let humangrid do the work for you.  
You're just a click away!

[OFFER A JOB](#)

### Text Create

You quickly need a few hundred or a few thousand texts for your website? City descriptions? Product descriptions? humangrid generates your individual texts quickly, in high quality, plagiarism- and spellchecked and proofread at very attractive conditions.

[Information and further details here.](#)

### Become a Clickworker

Make money with intelligence.  
From the comfort of your own desk!

We are always looking for new clickworkers who are looking for a freelance job they can pursue in a totally flexible way.

The humangrid team needs people that like to create and correct texts, translate, tag photos and videos, categorize products, search the Internet, collect data and more...

Join us now – we look forward to hearing from you!

[Information and further details here.](#)

[REGISTER NOW](#)

 follow us

Zahlreiche neue Projekte im humangrid! Texterstellung, Übersetzungen, und mehr...

<https://workplace.humangrid.de/>


2 days ago

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Clickworker Artikel vdi


<http://bit.ly/8s3RsG>

2010-01-13

 **THE EXTRAORDINARIES**

REGISTER   LOG IN


DASHBOARD   GET STARTED   CREATE A MISSION   ABOUT




**GOT SOME FREE TIME?**

**BE EXTRAORDINARY!**

In just a few minutes, you can micro-volunteer for your favorite cause using your mobile phone or personal computer.



**GET STARTED**  
Browse Missions



**CREATE A MISSION**  
Engage supporters through micro-tasks

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to create and correct texts, translate, tag photos and videos, categorize products, search the Internet, collect data and more...



Profession:

Support Staff, Unemployed, Driver, Housekeeping

Education:

Schooling, Read/Write local language

Income:

Up to 8000 pm

Digital Literacy:

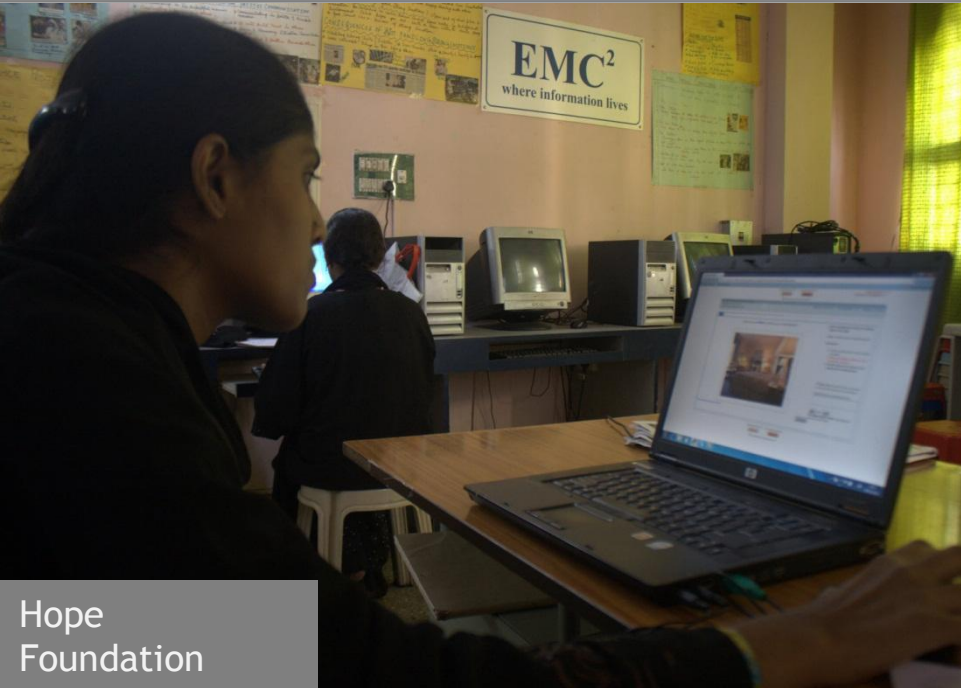
Some basic course in computers/  
peer to peer learning

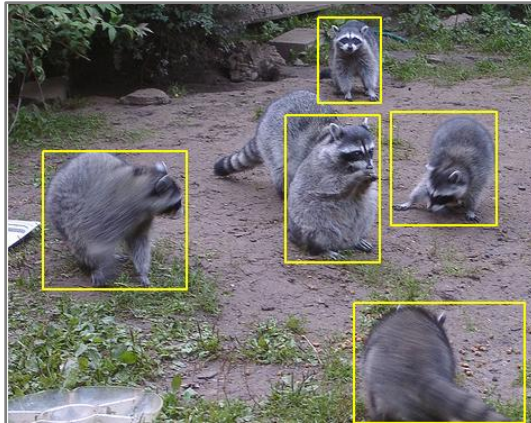
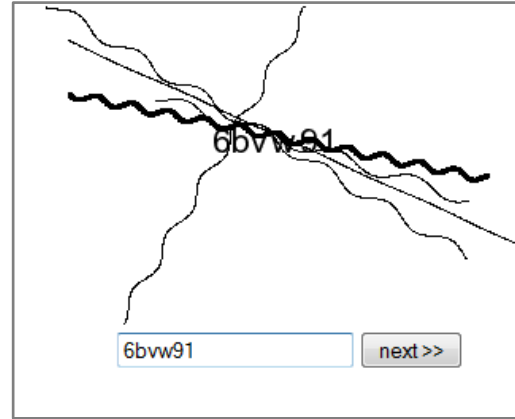
Resources:

Access to PC with internet

Time Available:

Off duty hours





Google

zions bank ad

zions bank loc Search 186,000 results

zions bank utah 178,000 results

zions bank careers 39,800 results

zions bank stock 35,100 results

zions bank routing number 3,540 results

zions bank foreclosures 12,500 results

zions bank customer service 20,500 results

zions bank stock price 13,600 results

zions bank mortgage 53,000 results

zions bank online banking 67,800 results

close

More results from Zionsbank.com

[Welcome to Zion](#)

Money market account in Utah and Idaho.

[www.zionsbank.com](#)

[Online Banking](#)

[Contact Us](#)

[Checking](#)

[Careers](#)

[Zions Bancorporation - Wikipedia, the free encyclopedia](#)

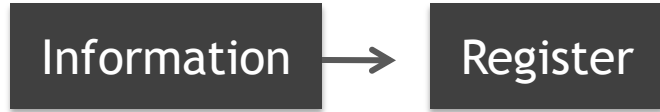
Jump to [Brigham Young](#). At the time of the bank's formation, the 50 largest banks in the United States at December 31, ...

[en.wikipedia.org/wiki/Zions\\_Bancorporation](#) - [Cached](#) - [Similar](#)

[Zions Bank's Budget](#)

Information

Micro-Tasks?



Able to create account

Skills

Information



Register



Select Task

## Task Information?

<u>Rewrite, and answer a cooking related question</u>			<a href="#">View a HIT in this group</a>
Requester: <a href="#">Mturk Foodista</a>	HIT Expiration Date: Feb 22, 2010 (1 week 5 days)	Reward: \$0.05	
	Time Allotted: 30 minutes	HITs Available: 13335	
<u>Find contact info from a food blog post</u>			<a href="#">View a HIT in this group</a>
Requester: <a href="#">Mturk Foodista</a>	HIT Expiration Date: Feb 19, 2010 (1 week 1 day)	Reward: \$0.05	
	Time Allotted: 60 minutes	HITs Available: 2636	
<u>Korean to English Translation</u>			<a href="#">View a HIT in this group</a>
Requester: <a href="#">WikiTrans</a>	HIT Expiration Date: Feb 17, 2010 (6 days 21 hours)	Reward: \$1.00	
	Time Allotted: 24 hours	HITs Available: 1560	



Information →

Register →

Select Task →

Do Task

## Instructions

**READ INSTRUCTIONS COMPLETELY! SCROLL TO THE END!**

**Accurately** trace an outline of the **main** person in the **right** image.

**Instructions**

1. What you see: The left image is the whole photo, the right image is an enlarged version of the red box.
2. In the **right image**, outline the **person that the red box belongs to**. **Outline ONLY ONE person**.
3. Click on the personOutline button to the right of the photo to start an outline.
4. **Trace the outline** of the person by clicking points on the edge of the person (between the person and the rest of the environment).
5. To finish one outline, click on the small dot where you started.
6. Once all parts of the person have been outlined, click **submit** to complete the HIT.

**How to draw an outline**

What you see: The original image with a box around Bob (left), and an enlarged version of the box (right)





Information



Register

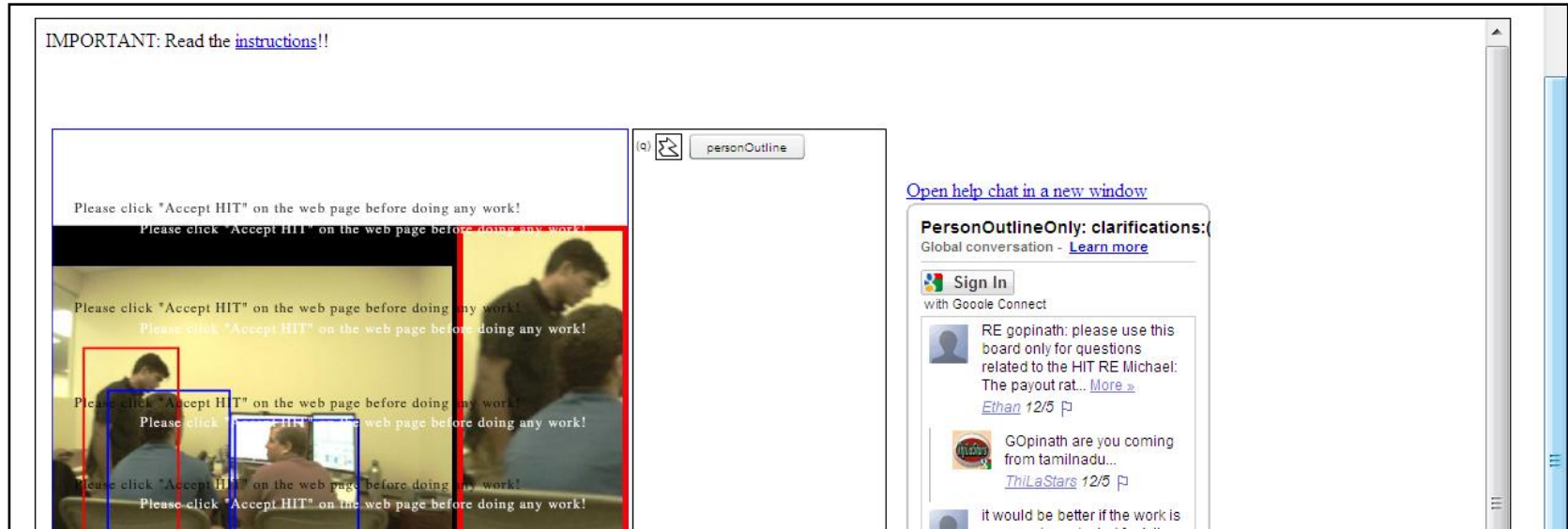


Select Task



Do Task

## Training



Information



Register



Select Task



Do Task

## Mental Model

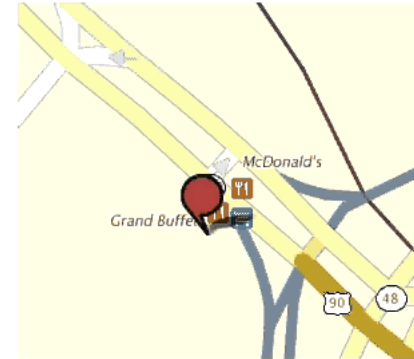
### Wal-Mart(ATM)

800 S Clearview Pky  
UNINC JEFFERSON PARISH,  
LOUISIANA  
70123

**Phone:** No data available

Try searching on [Bing](#) or [Yahoo](#). You will probably need to alter the search by adding other keywords or location information like the phone number, you can also try using other search engines.

*Thank you for paying close attention to detail.*



Finished with this HIT?    Let someone else do it?

Submit HIT

Return HIT

Information



Register



Select Task



Do Task

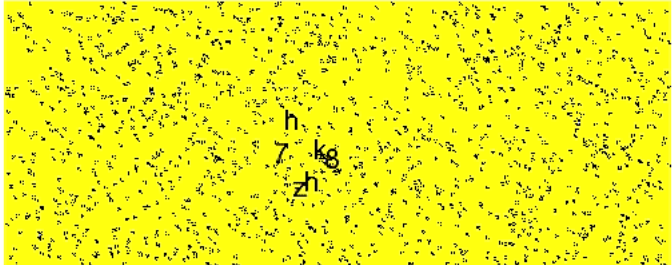
## Method

Do 20 image captcha - (99.9% acceptance rate, 2mn task) - we give a 5\$ bonus every day.

Requester: Elie Bursztein

Qualifications Required: None

Reward: \$0.10 per HIT    HITs Available: 32    Duration: 2 hours



7h k8 |  next >>

Information



Register

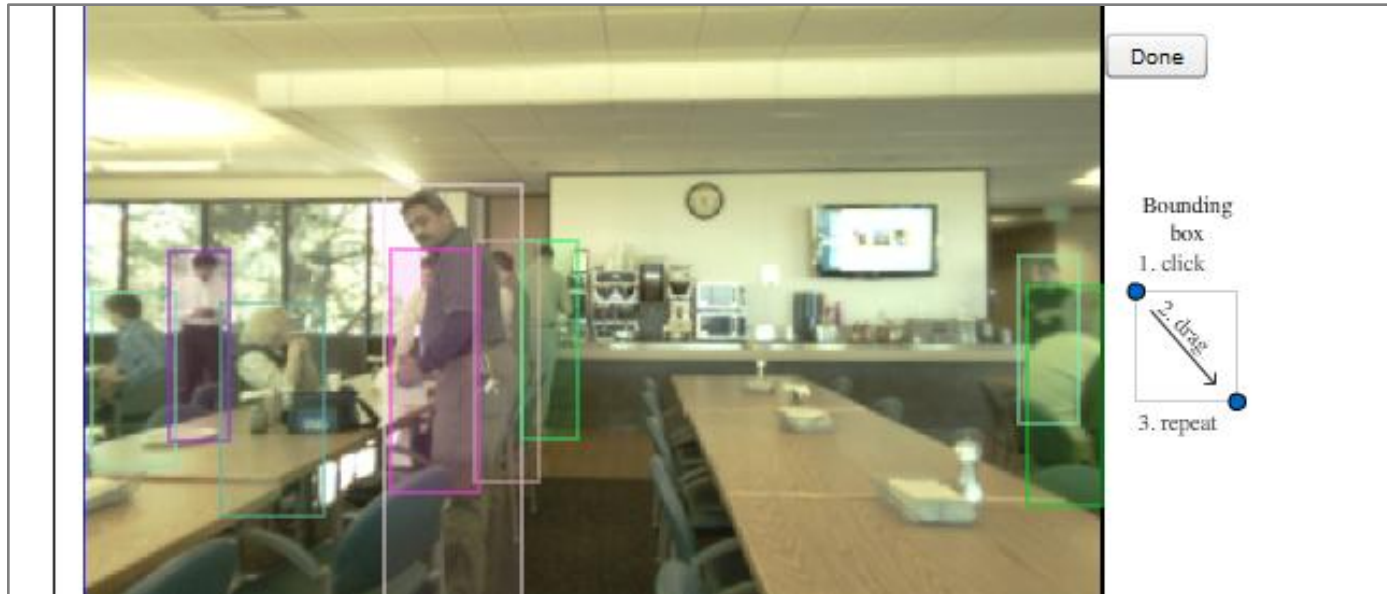


Select Task



Do Task

## Human Intelligence



Information



Register



Select Task



Do Task

## Cultural Context



Please write down objects that you have seen in the image as many as possible (separate by comma):

Information →

Register →

Select Task →

Do Task →

Account

## Results

The screenshot displays the Amazon Mechanical Turk user interface. At the top, the Amazon Mechanical Turk logo is on the left, and navigation links for 'Your Account', 'HITS', and 'Qualifications' are in the center. On the right, it shows '210,359 HITS available now' and links for 'user', 'Account Settings', 'Sign Out', and 'Help'. Below the navigation bar, there's a search bar with 'HITS' selected, a dropdown menu, and a search button. The main content area shows a confirmation message: 'Your results have been submitted to Elie Bursztein and will be approved or rejected shortly. You can work on this new HIT by clicking the "Accept HIT" button.' Below this, there's a task description: 'Do 20 image captcha - (99.9% acceptance rate, 2mn task) - we give a 5\$ bonus every day.' The requester is 'Elie Bursztein' and qualifications required are 'None'. The reward is '\$0.10 per HIT', there are '32 HITS Available', and the duration is '2 hours'. On the right, it shows 'Total Earned: \$0.43' and 'Total HITS Submitted: 14'. A 'Skip HIT' button is also visible.

amazonmechanicalturk Artificial Intelligence

user | Account Settings | Sign Out | Help

Your Account HITS Qualifications 210,359 HITS available now

All HITS | HITS Available To You | HITS Assigned To You

Search for HITS containing that pay at least \$ 0.00 for which you are qualified GO

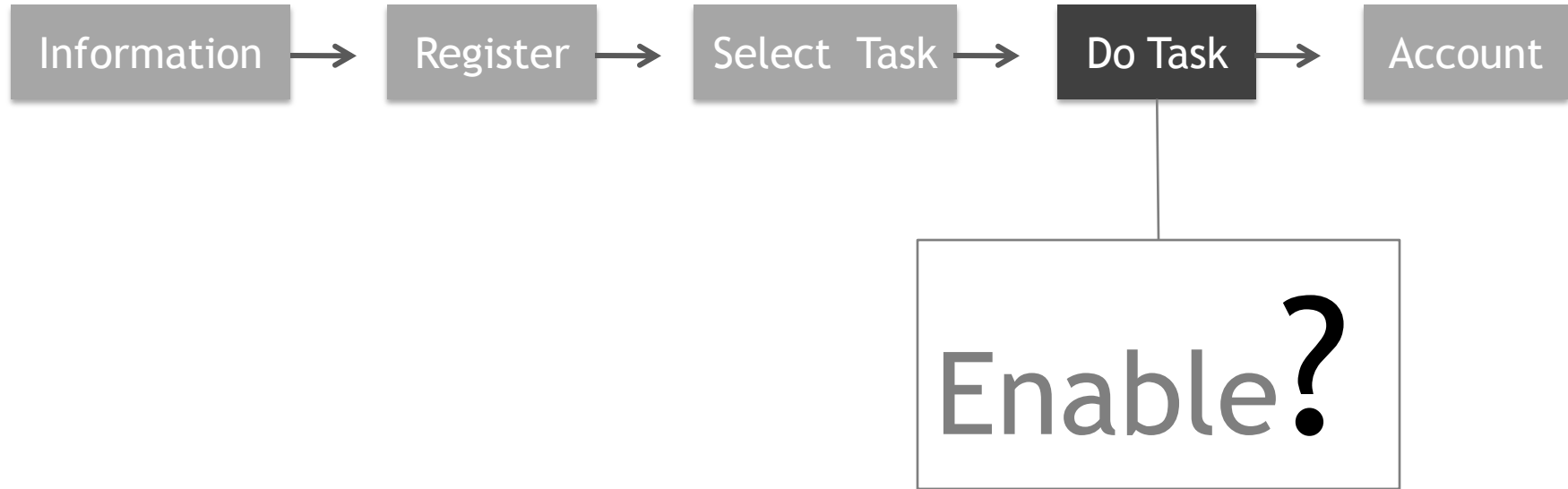
Timer: 00:00:00 of 2 hours Want to work on this HIT? Want to see other HITS? Skip HIT

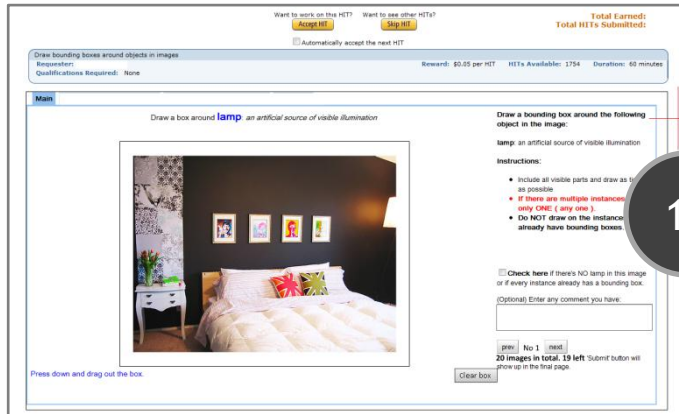
**Total Earned: \$0.43**  
**Total HITS Submitted: 14**

**Your results have been submitted to Elie Bursztein and will be approved or rejected shortly.**  
You can work on this new HIT by clicking the "Accept HIT" button.

Do 20 image captcha - (99.9% acceptance rate, 2mn task) - we give a 5\$ bonus every day.  
Requester: Elie Bursztein  
Qualifications Required: None

Reward: \$0.10 per HIT HITS Available: 32 Duration: 2 hours





10

Introduction

Screen  
Capture

Analysis



Want to work on this HIT?    Want to see other HITs?

Accept HIT

Skip HIT

**Total Earned:**  
**Total HITs Submitted:**

☐ Automatically accept the next HIT

Draw bounding boxes around objects in images

Requester:

Qualifications Required: None

Reward: \$0.05 per HIT

HITs Available: 1754

Duration: 60 minutes

Main

Draw a box around **lamp**: *an artificial source of visible illumination*



Press down and drag out the box.

Draw a bounding box around the following object in the image:

**lamp**: an artificial source of visible illumination

Instructions:

- Include all visible parts and draw as tightly as possible
- **If there are multiple instances, pick only ONE ( any one ).**
- **Do NOT draw on the instances that already have bounding boxes.**

☐ **Check here** if there's NO lamp in this image or if every instance already has a bounding box.

(Optional) Enter any comment you have:

prev No 1 next

**20 images in total. 19 left** 'Submit' button will show up in the final page.

Clear box

[All HITs](#) | [HITs Available To You](#) | [HITs Assigned To You](#)Search for  containing  that pay at least \$  for which you are qualified 

Timer: 00:00:00 of 5 minutes

Total Earned: \$0.31  
Total HITs Submitted: 26

Which type of box contains more dots per box, on average?

Requester: Alvarez Lab

Reward: \$0.05 per HIT

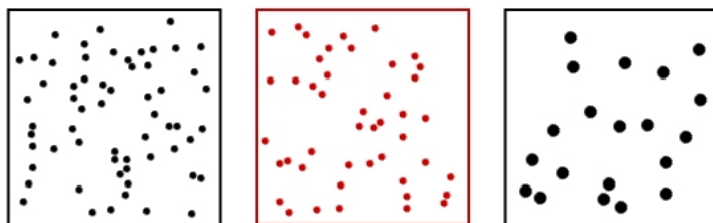
HITs Available: 2

Duration: 5 minutes

Qualifications Required: HIT approval rate (%) is not less than 95

**Instructions:** In each picture below, you will see one **red** box and two **black** boxes, filled with dots. On average, which type of box contains more dots per box, red or black? Do NOT count the dots, or use a calculator or any explicit mathematics or arithmetic. Look at the picture and estimate. It is important that you do NOT report the type of box that has more dots in total, because together, the two black boxes *always* have more dots than the one red box! Instead, report the color with more dots per box.

By answering the following questions, you are participating in a study being performed by cognitive scientists at Harvard, in the Department of Psychology. If you have questions about this research, please contact Jordan Suchow at suchow@fas.harvard.edu. Your participation in this research is voluntary. You may decline to answer any or all of the following questions. You may decline further participation, at any time, without adverse consequences. Your anonymity is assured; the researchers who have requested your participation will not receive any personal information about you.



On average, which type of box has more dots per box, red or black?

☐ The **RED** box has a GREATER number of dots than the average black box. ☐ The **BLACK** boxes have a GREATER number of dots per box than the red box.

Want to work on this HIT?

Want to see other HITs?

Report this HIT: [violates the Amazon Mechanical Turk policies](#) or [broken](#) ([Why?](#))

Draw Bounding Box | 30 Minutes | \$ 0.05

Original  
Interface  
English

Max Answers: 20

Draw Bounding Box | 30 Minutes | \$ 0.05

Original  
Interface  
English

0.00

Average

0.00

Median

Max Answers: 20

Draw Bounding Box | 30 Minutes | \$ 0.05

Original  
Interface  
English

Original  
Interface  
Kannada

0.00

Average

0.00

Median

Max Answers: 20

Draw Bounding Box | 30 Minutes | \$ 0.05

Original  
Interface  
English

Original  
Interface  
Kannada

0.00

Average

0.00

0.00

Median

0.00

Max Answers: 20

Draw Bounding Box | 30 Minutes | \$ 0.05

Original  
Interface  
English

Original  
Interface  
Kannada

Kannada  
Video  
Instructions

0.00

Average

0.00

0.00

Median

0.00

Max Answers: 20

Draw Bounding Box | 30 Minutes | \$ 0.05

Original  
Interface  
English

Original  
Interface  
Kannada

Kannada  
Video  
Instructions

0.00

Average

0.00

6.40

0.00

Median

0.00

7.00

Max Answers: 20



Draw Bounding Box | 30 Minutes | \$ 0.05

Original  
Interface  
English

Original  
Interface  
Kannada

Kannada  
Video  
Instructions

New  
Interface  
Kannada Text  
Instructions

0.00

Average

0.00

6.40

0.00

Median

0.00

7.00

Max Answers: 20

Draw Bounding Box | 30 Minutes | \$ 0.05

Original  
Interface  
English

Original  
Interface  
Kannada

Kannada  
Video  
Instructions

New  
Interface  
Kannada Text  
Instructions

0.00

Average

0.00

6.40

13.0  
0

0.00

Median

0.00

7.00

14.5  
0

Max Answers: 20

Draw Bounding Box | 30 Minutes | \$ 0.05

Original  
Interface  
English

Original  
Interface  
Kannada

Kannada  
Video  
Instructions

New  
Interface  
Kannada Text  
Instructions

New  
Interface  
Kannada  
Video  
Instructions

0.00

Average

0.00

6.40

13.0  
0

0.00

Median

0.00

7.00

14.5  
0

Max Answers: 20

Interventions

Tests

Draw Bounding Box | 30 Minutes | \$ 0.05

Original  
Interface  
English

Original  
Interface  
Kannada

Kannada  
Video  
Instructions

New  
Interface  
Kannada Text  
Instructions

New  
Interface  
Kannada  
Video  
Instructions

0.00

Average

0.00

6.40

13.0  
0

15.0  
0

0.00

Median

0.00

7.00

14.5  
0

15.0  
0

Max Answers: 20

Which type of box contain more dots ? | 5 Minutes | \$ 0.05

Original  
Interface

Original  
Interface  
Kannada

Kannada  
Video  
Instructions

New  
Interface  
Kannada Text  
Instructions

New  
Interface  
Kannada  
Video  
Instructions

1.30

Average

1.00

2.67

2.90

2.60

1.00

Median

0.50

3.00

3.00

3.00

Max Answers: 3

Draw Bounding Box I 30 Minutes I \$ 0.05

\$ Payment per hour: **0.483**

Rupee Payment per hour: **21.745**

Baseline Hour Income: **21.178**

Baseline Monthly Income: **3388.636** (Entire Group) **5964** (Employed Workers)

If spend 1 Hour a day, 30 Hours in a Month: **652.34**

Increment in Monthly Earnings: **19.25%** (Entire Group) **10.94%** (Employed Workers)

New  
Interface  
Kannada Text  
Instructions

Which type of box contain more dots ? | 5 Minutes | \$ 0.05

\$ Payment per hour: **1.90**

Rupee Payment per hour: **85.63**

Baseline Hour Income: **21.178**

Baseline Monthly Income: **3388.636** (Entire Group) **5964** (Employed Workers)

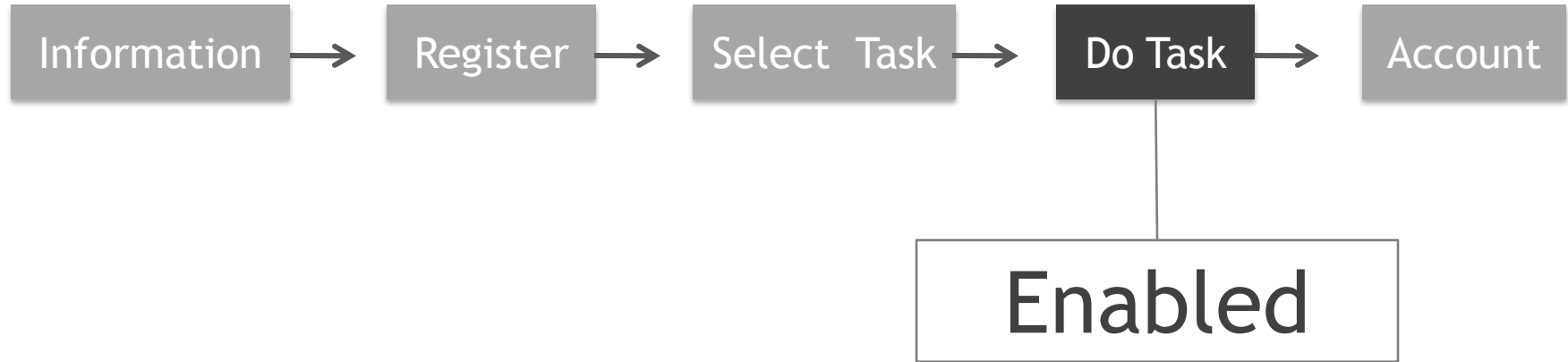
If spend 1 Hour a day, 30 Hours in a Month: **2568.842**

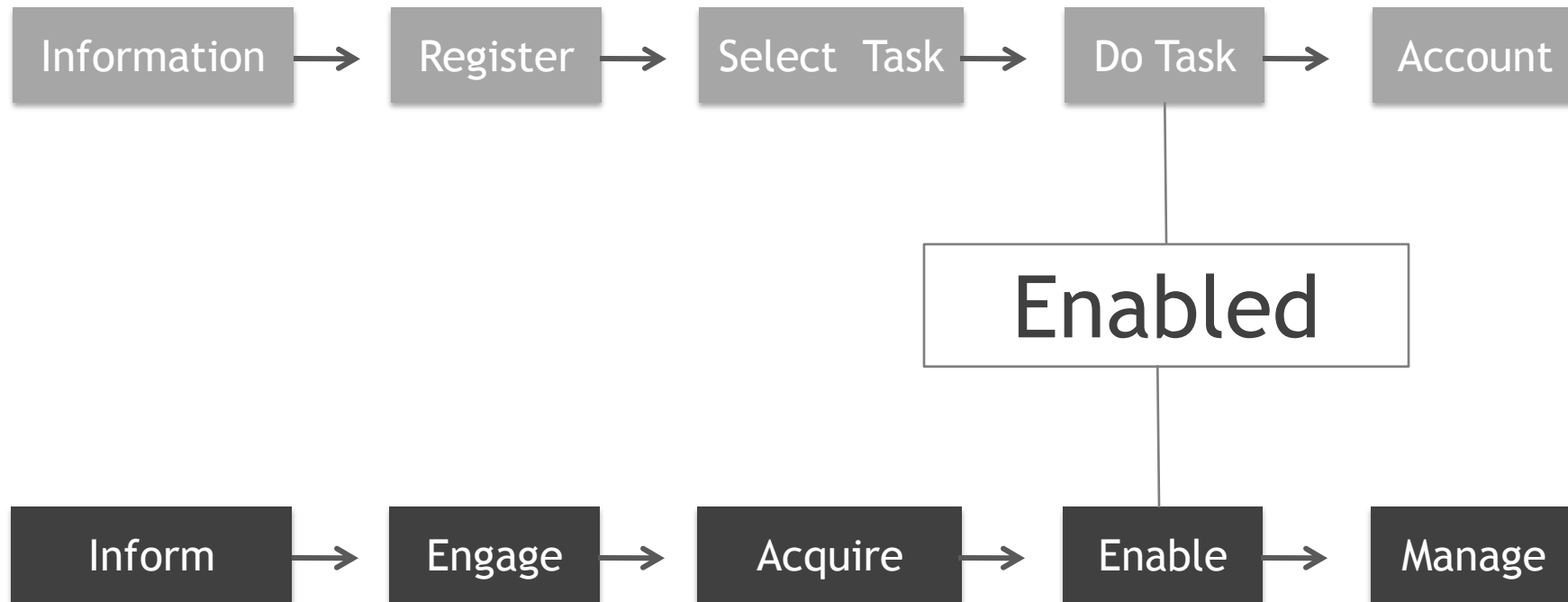
Increment in Monthly Earnings: **75.81%** (Entire Group) **43.07%** (Employed Workers)

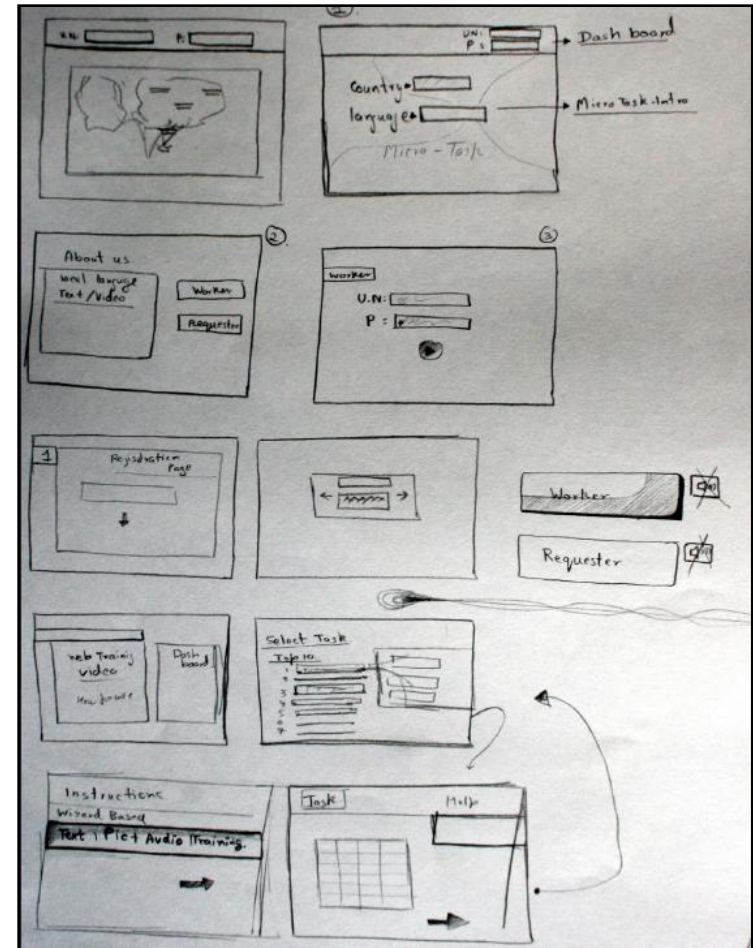
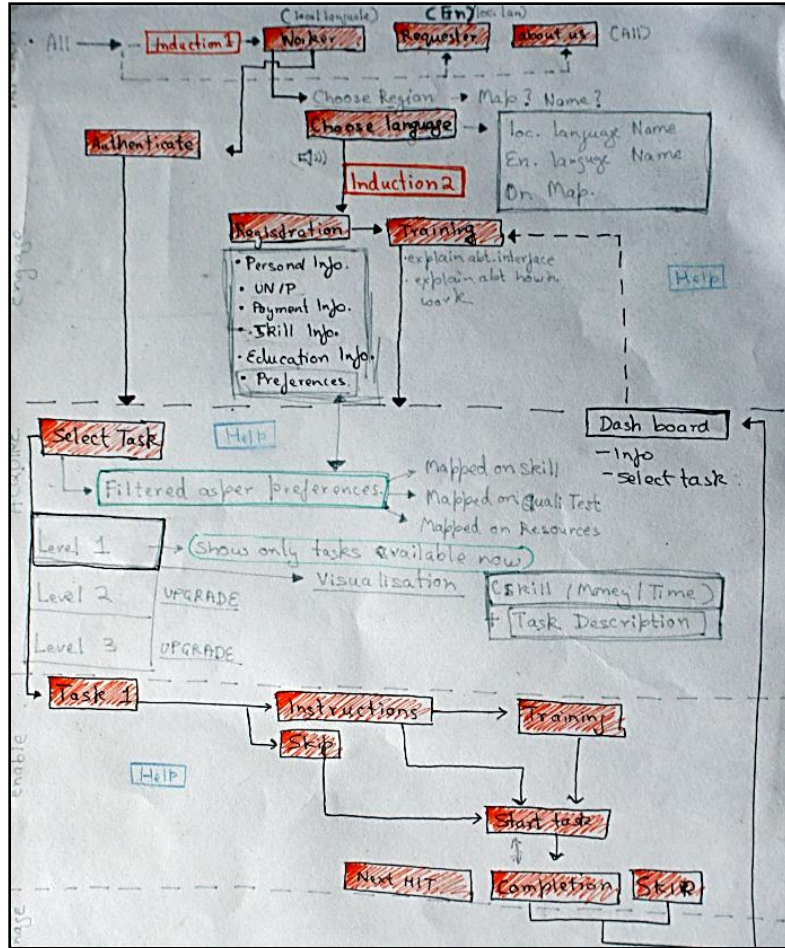
New  
Interface  
Kannada Text  
Instructions

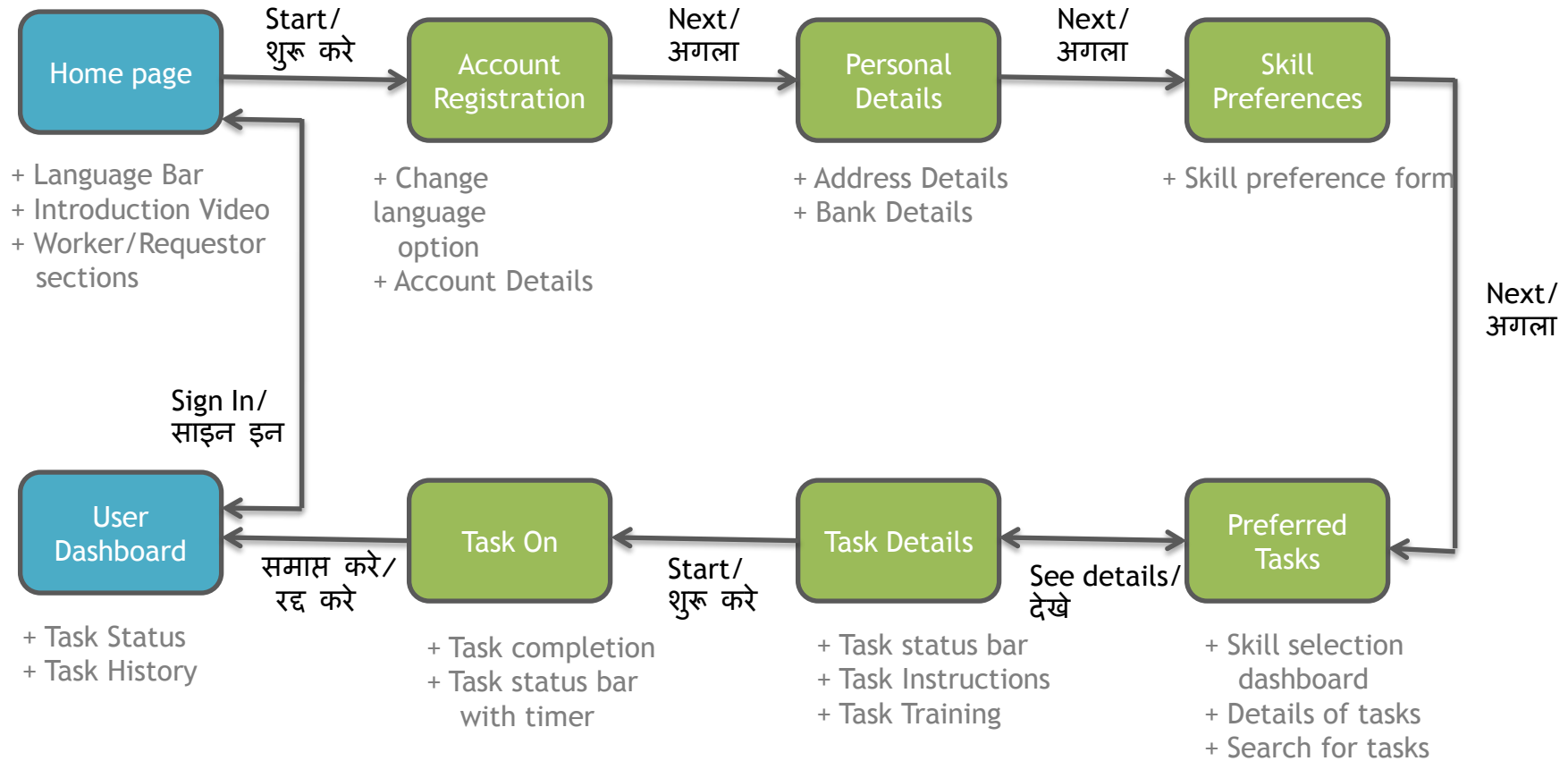
- There are tasks on Mturk that, if understood, people can complete and be paid for.
- Different types of tasks require different skills; some are more accessible than others (e.g., web search + typing too hard)
- But, the Mturk website as it is not usable (by low-income, 7-14 years of education)
- Language localization of website as-is does not help
- But, changing UI and simplifying / clarifying instructions does enable site to be usable and people to be paid
- Video instructions do not significantly improve task completion over improved UI+text
- Cultural context also influences ability to complete tasks (e.g., some kinds of Western lamps not recognized)











microjob

1,2,3

Username

Password

Sign In

Country: A

Language: A

Next >

microjob

1,2,3

Username

Password

Sign In

1 Country: A

2 Language: A

3 Next >

Task Bazaar

1,2,3 OFF English 1,2,3 OFF

1

2

Worker

Requester

microjob

1,2,3

Username

Password

Sign In

New User Register

Worker

Requester

## Design Prototype

Usability Evaluation

My Sincere Thanks to:

Bill Thies, Aishwarya Ratan, Ed Cutrell, Indrani Medhi, MSRI Interns

Prof. Aniruddha Joshi, Prof Ravi Poovaiah

Mr Joseph, Mr Augustine (Hope Foundation)

Aniket Sarangdhar, Mandar Sarnaik, Aniruddha Kadam

Support staff at MSR

