

# CS 147 Assignment 2

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## **Team Possible**

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Problem Domain: ***Improving Crowdsourcing***

Studio: ***Crowd Power***

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### ***Quick Links:***

- [Initial POV](#)
  - [New Needfinding Interview](#)
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### ***Initial POV*** (from last week's assignment)

WE MET Steve.

WE WERE AMAZED TO REALIZE that he successfully crowdsourced a solution for solving edit distance in DNA strings by posting an open-ended problem.

IT WOULD BE GAME CHANGING TO see how open-endedness can be used to improve crowdsourcing projects.

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### ***New Needfinding Interview***

Shubho, AI Software Engineer at Baidu



Baidu is a Chinese search giant and considered the “Google of the East”. Therefore, we thought it would be beneficial to see how people contribute to this media giant. He gave insight into his project on making interactions with technology more natural.

Shubho spoke about why people don’t use Siri on their iPhones. In essence, his research concludes that people don’t like the unnatural responses. Siri, for instance, cannot handle input like “I am really craving a good coffee right now,” whereas a friend might suggest going out to a place they both like or trying a new place. To Shubho, this was a specific instance where he felt talking to users (crowdsourcing) was particularly helpful in his work. He mentions that he wants to feel like interacting with technology is like interacting with a friend he is comfortable with.

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Our 3 revised POVs, along with the HMW statements we generated for each are listed below.

### ***POV1***

WE MET Robin, a software engineer at Facebook.

WE WERE AMAZED TO REALIZE that crowdsourcing comes in two distinct forms: one where contributions are completely independent and often invisible to other contributors, and one where all contributions are completely visible to new contributors.

IT WOULD BE GAME-CHANGING to somehow merge these two forms of crowdsourcing, and get the best of both worlds.

### ***HMWs for POV1***

1. HMW optimize a scenario where contributions are completely independent?
2. HMW optimize a scenario where contributions are completely visible to all?
3. HMW give new contributors all the tools they need so they don’t even want to look at other people’s submissions?
4. HMW make a completely independent form of crowdsourcing gradually more dependent as time goes on?

5. HMW make a completely visible form of crowdsourcing gradually more independent as time goes on?
6. HMW make all contributions visible but eliminate the bias-inducing effect?
7. HMW allow contributors to choose the visibility of their contributions?
8. HMW determine which form of crowdsourcing works best for a particular project?
9. HMW tailor to people's personalities when choosing what form of crowdsourcing to use?
10. HMW allow users to freely and accurately express their assumptions/biases going into a crowdsourcing project?

## ***POV2***

WE MET Steve, Harvard Medical School Researcher.

WE WERE AMAZED TO REALIZE that the programmers on TopCoder he enlisted were able to contribute radical solutions because they had no fear of peer backlash or judgment. IT WOULD BE GAME CHANGING to give people the confidence to contribute in real life as they would in an online anonymous platform (where they wouldn't have to fear their peers' disapproval and where a lack of support from the crowd wouldn't affect them the same way).

**Edited POV after new interview this week:**

WE MET Shubho, an Artificial Intelligence Software Engineer at Baidu.

WE WERE AMAZED TO REALIZE that the natural language processing work he is doing focuses on making conversations with technology more natural. He wants to make a piece of technology seem as if it were a friend so that people are comfortable interacting with it. IT WOULD BE GAME CHANGING if people were contributing as if to a friend in real life but with increased comfort because the contribution is through a virtual medium rather than in person.

## ***HMWs for POV2***

1. HMW limit bias of individual contributors in crowdsourcing projects?
2. HMW allow people to glean the wisdom of the crowd without biasing their contribution to the crowd?
3. HMW use competition/challenges/other tactics to remove the mental hurdles people may have contributing their (sometimes radical/radically different) opinions?
4. HMW allow people in general to feel as comfortable contributing in real life as they would in an online anonymous platform, where they wouldn't have to fear their peers' disapproval and where a lack of support from the crowd wouldn't affect them the same way?
5. HMW allow people to contribute the full extent of their thoughts without distilling them into a simple scoring/upvote/downvote system?

6. HMW limit effects of criticism on people's willingness to contribute?
7. HMW filter peers' disapproval into something more constructive and positive?
8. HMW use our knowledge of a person's personality in the real world to tailor a crowdsource environment that would best support him/her?
9. HMW let the contributor choose his or her own crowdsource environment that they think would best support their contributions?
10. HMW assess whether a pseudo-anonymous environment, where people create profiles and usernames, might affect the quality of the contributions?

### ***POV3***

WE MET Katelyn, an Elite Yelp reviewer.

WE WERE AMAZED TO REALIZE that she became an Elite Yelp reviewer almost solely because she loved the Yelp community and wanted to give back to it.

IT WOULD BE GAME CHANGING to find ways to incentivize people to contribute.

### ***HMWs for POV3***

1. HMW capture an individual person's motivation for contributing to a project?
2. HMW incentivize people to contribute?
3. HMW keep contributors contributing?
4. HMW distinguish between those who contribute for external validation/benefit and those who receive intrinsic satisfaction in doing so?
5. HMW shape people's incentive for contributing to the group discussion/brainstorming?
6. HMW show someone that their contribution matters?
7. HMW increase others' appreciation of all types of contribution?
  - a. HMW limit criticism of others' ideas? HMW minimize the effects of criticism on a person?
8. HMW encourage an open environment where people feel the desire to speak up?
9. HMW assess what type of incentive, ie monetary, social, list ranking, best motivates the mass audience?
10. HMW tailor different incentive programs around the preferences of the users?
11. HMW get contributors to stop contributing?
12. HMW identify the effects of external validation?

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### ***Three Best HMW Statements***

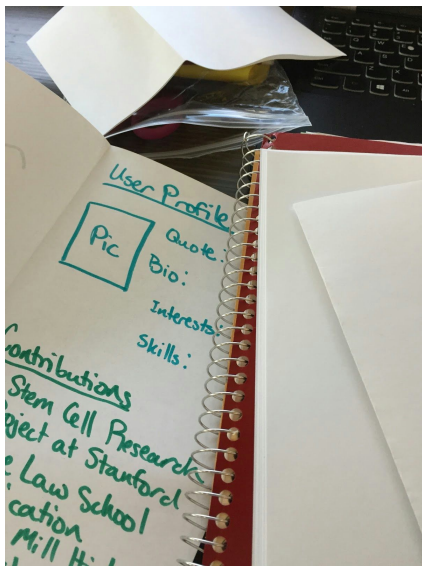
1. From [POV2](#): HMW allow people to glean the wisdom of the crowd without biasing their contribution to the crowd?
2. From [POV2](#): HMW filter peers' disapproval into something more constructive and positive?

3. From [POV3](#): HMW tailor different incentive programs around the preferences of the users?
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### ***Three Experience Prototypes***

#### ***Experience Prototype 1: Teamwork Environment***

1. Assumptions: People want to feel like their contributions matter, and they want to be a contributing member of a team. They are more invested in projects where there is collaboration and teamwork.
2. Designing Prototype: Paper prototype: Basic application for connecting with people on group projects











3. Testing Prototype: Tested on Ilana Golan: Founder & CEO of Stiya; She has experience working with teams on designing her company's product. I narrated to her the details of her experience with working on projects as a team.



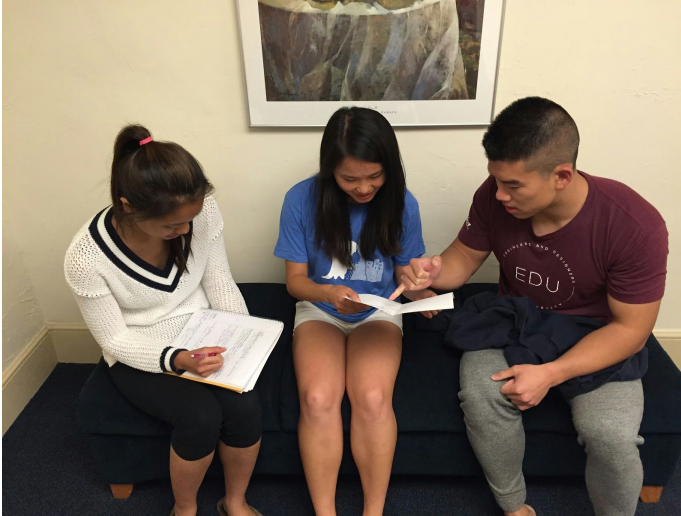
4. What Worked? What Didn't? What Did You Learn? The paper prototype definitely worked because she said it was just simple enough so that I was guiding her along more than the papers were. She really likes the ideas of collaboration and thinks that forums for presenting ideas are great, but there should also be a way to summarize key information from an extended chat. Furthermore, she questions how to get people to be invested in their team and project in the first place. These are all things we need to consider for the future.
5. Assumption Valid? Why or Why Not? I think it's definitely valid. She thinks teamwork is crucial, but at the same time, just a hint of competition is also important.
6. New Assumptions? People want to work in teams, but there needs to be a slight competitive side to it as well. Management can validate team members' work.

### Experience Prototype 2: Change My View

1. Assumptions: Users want to be more informed on particular issues/topics and sometimes are seeking out different opinions.
2. Designing Prototype: Designed in MS Word, printed out prototype.

<p>Welcome to Change My View 147</p>	  	<p>State your current assumptions and opinions about climate change here.</p> 
<p>Read up on an unbiased description of climate change and facts surrounding it while you wait for your peers to respond to your post.</p>  	<p>What did you think after reading the responses?</p>  <p>Let us know how you feel now – has your opinion changed or remained the same? Why?</p> 	<p>Experience Prototype Serial 147 147</p> <p>Welcome to Change My View 147!</p> <p>You have been selected for a panel about climate change. You don't know a whole lot, but writing the post will allow you to learn (at least a little) and you will be able to read the responses of other people who are interested in the same topic. Before you submit your post, please remember to thoroughly proofread for your opinions. In the way, you may disagree and you want to learn and hear how everyone in your class feels about climate change.</p> <p>Before you can do anything, we need you to state your assumptions and opinions about climate change. (You'll be asked to explain what you think, how you feel, and what you think you should do about it.)</p> <p>At this stage, we're not asking you to provide detailed descriptions of the responses, and to be honest, it's not your job to provide responses to your peers. It's the job of the moderators to provide responses to your peers, or for you to respond to them.</p> <p>What did you think after reading the responses?</p> <p>The people who do write the post will see how, after reading the responses, you feel about the topic. The responses will also give you a chance to see how others feel about the topic.</p> <p>How did the app affect your view on your own class? How did this app affect your view on being subjected to peer's constructive feedback?</p>

3. Testing Prototype: Tested on Flora, who finds herself wanting to learn more about social issues but is afraid to broadcast her opinions.

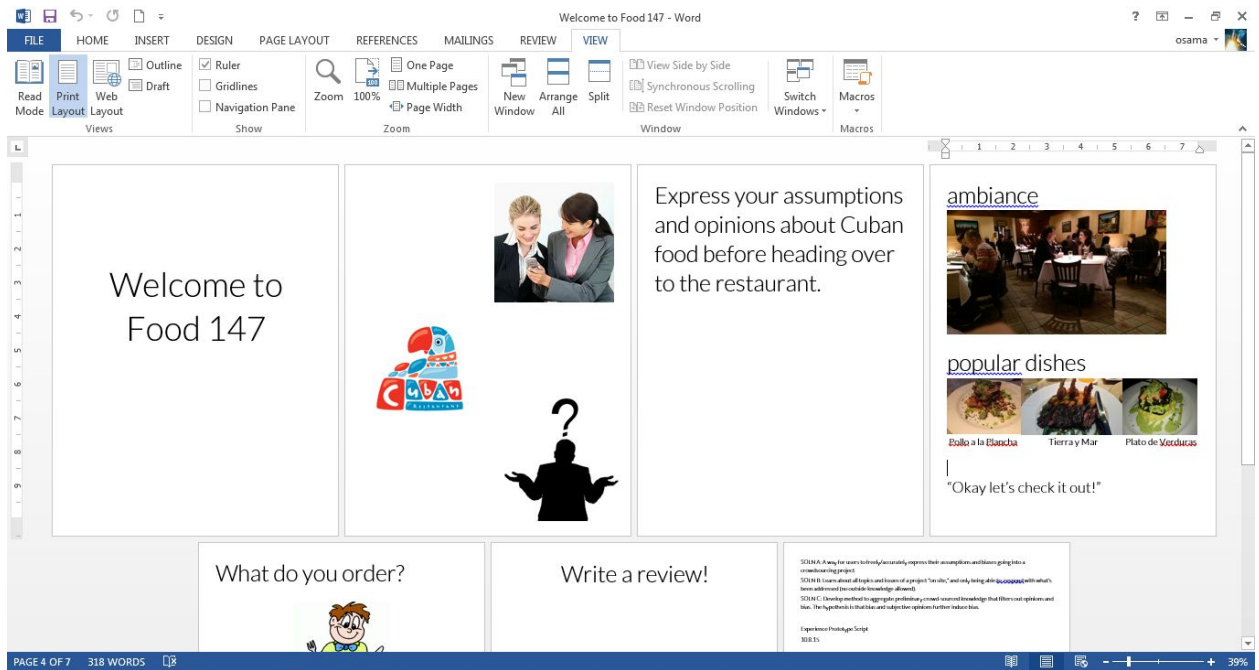


4. What Worked? What Didn't? What Did You Learn? The part where she had to state her assumptions and opinions worked well because it challenged her to think deeply and justify her stance. She thinks the idea of putting your opinion out there with the intention of receiving critique to be more informed is novel and could serve a really unique niche, and feels that there were occasions in the past where she would've used such an app. She feels that this might not work for people who aren't open to that concept though. I learned that this would serve a very specific niche.
5. Assumption Valid? Why or Why Not? The assumption is valid because there *are* people out there who are open to receiving that sort of criticism.
6. New Assumptions? Users are open to receiving criticism only if it is truly constructive.

### ***Experience Prototype 3: Mitigating Bias***

1. Assumptions:
  - a. The user/contributor carry undesirable biases that are beyond their control.
  - b. Exposure to other people's biases will only result in the user being more biased.
  - c. It is possible to mitigate the effects of bias through alternative crowdsourcing methods.

## 2. Designing Prototype: Designed in MS Word, printed out prototype.



## 3. Testing Prototype: Catherine Xu, someone who's not open to trying new foods. I narrated the script and asked her questions, as she followed along in the visual book.



4. The prototype worked to set the scene and get her to vocalize her biases. The prototype was weak in making users go from "tasting" the food to imagining what they would write as a review. I learned that bias might just be an integral and familiar part of crowdsourcing that is not worth trying to get rid of -- in certain applications.
5. Assumption Valid? Why or Why Not? Somewhat valid. It turned out Catherine, since she was so opposed to trying new foods, didn't really have an opinion more or less about Cuban food. The new and surprising assumption is that bias may actually be an integral



and familiar element of certain crowdsourced products. The exercise at the beginning in which she wrote her biases did not really affect her final review.

***Most Successful Prototype:***

Teamwork Environment: Not only was our assumption that people like to work together in teams confirmed, but the user also gave insight about adding competition even into teamwork environments.