DESIGNING LIBERATION TECHNOLOGIES
CS379L/LAW498/PS337T
Spring 2012, M, W 3:15-5:15 Bldg 550-Studio 2 (d.school)

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Project Expectations and Deliverables

Designing Liberation Technologies is a project-based course. The class will divide into six teams, and each team will focus its efforts over the quarter on an implementable project. Teams will use course lectures and design-thinking skills to inform and shape the project.

The course will focus on designing technologies that foster human development (health, education, water etc.) in Nairobi. We expect that the projects will use mobile technology.

Project Partners

We are fortunate to have three amazing partner organizations working with us this year. Each partner organization will collaborate with two project teams. Student teams will work with a partner organization to select an area of mutual interest from the wish-list of potential topics and initial need finding trip.

Each partner organization will have a designated contact person to serve as the liaison to their respective project teams. The project team is responsible for establishing an engagement model with the partner to ensure that you communicate regularly and are able to get the right information at the right time.

The 3 project partners are Umande Trust, KYSA, and MYSA:

All three partners have extensive experience in Nairobi in developing and implementing projects that bear directly on human development. We will provide you with more background on these organizations and their areas of focus once the course begins.

Team Formation

Students will be divided into 6 project teams of four students, each affiliated with a specific partners. Each team needs to have a balance of skills – technology, economic and social development, design etc. Each project team will also include one student who travelled to Kenya over spring break and worked (alongside students from University of Nairobi) with the partner organization. These individuals will serve as one source of first hand information. They will each give a short presentation on the second day of class (Wed., April 4) and teams will be formed in class that day.

Team Coaches

Each team will be assigned a coach. Coaches will be experienced designers or professionals with domain expertise in development or Kenya. The coaches will be an important source of guidance—on focusing, brainstorming, and keeping a sense of reasonable project expectations. We will select a coach for each team and you will need to work out an engagement model that works for your team and your coach. To facilitate engagement, we have pre-arranged for coach-team meetings to occur at minimum after class on Wednesdays. Of course you can meet other times as well.

Project Expectations

At the end of the ten-week course, each team will present a final project to the partners, the other teams, and the general Stanford community.

The final deliverable for the project will have four elements:

1. A power point presentation of *at most* five slides that states the problem you are seeking to solve, how you went about the process of defining a solution, and what your solution is.

2. A <u>prototype </u>that shows how the solution would work in the real world. You will need to build or make something. This does not have to be a working prototype but must at minimum show a series of screen shots that walk the partners through how the prototype solution would work. Suppose, you are using a mobile phone as part of your solution set. Then you might design the mobile phone screen shots that walk the users through the experience: that show the messages that users will see and what they are expected to do. A working prototype (code or flash type demo, for example) is not required. But if someone on your team has the skills it would be very valuable.

3. A <u>viability document</u> (in word) that responds to several questions that we will provide about whether the proposed solution makes organizational and financial sense. You should discuss such questions as: how much does your solution cost? how complex is it to build? does your partner have the skills to build this? What other organizations (private and public) would need to be involved; how will your end users learn about and access the solution?

4. A <u>10 minute verbal presentation</u> to a group representing the teaching team, partners, and other experts, to be followed with a time for questions and comments. Think of this as the pitch to potential funders and implementers as to why this project should be developed further. [This is in addition to a "showcase" presentation to the class and friends]

During the course, you will need to show various stages of these deliverables. We will work on them together and you will get regular feedback from your classmates, the partners, your coaches, and the teaching team.

Project Timeline

To keep your project on track, you will need to show drafts of your final deliverables during the course. Below is a timeline for those presentations.

Stage 1: Review Due on Monday April 23

Deliverable: Point of View (PoV) statement. This will include your perspective on the users and their need, and your initial insight

Review: Audience will be the class, teaching team and your coaches.

Show first quick prototypes on Monday April 30

Stage 2: Review Monday May 7th

Deliverable: The drafts of your five-slide powerpoint and initial prototype. By this stage you should have a pretty clear idea of your solution.

Review: Primary audience will be your partners. This will be an important checkpoint to ensure that they can fully participate in providing feedback and input.

We will work with you to arrange appropriate remote connections to present to your partners, at times out of class that work with the time shift (Nairobi is 10 hours later than us)

Stage 3: Review Wednesday May 16th – Materials due by Tuesday morning

Deliverable: Close to final powerpoint, prototype, and viability document. By this stage you should be close to the final stages of your project. The draft viability document will serve to further demonstrate your understanding of what it will take to "get the project done."

Review: Primary audience will be an external set of advisors. This stage will be run a little like a VC type review session. These advisors will be asked to evaluate your project and the progress thus far. This mode of review and evaluation will serve as an important point in the course to ensure that you are on track and that people who are new to your work are able to understand and see where you are going.

Discuss final prototypes on Wednesday, May 23

Dry run of final presentation on Wednesday May 30

Stage 4: Final Presentation June 4.

Deliverable: Final 10-minute presentation of your powerpoint, prototype, and viability document. Time for you to shine!

Review: Partners, invited guests, teaching team and coaches

Class Showcase Presentation on evening of Tuesday June 5

Deliverable: This will be an 8 minute presentation for an audience that isn't already familiar with the setting and problem. It can include broader background information and be more of a big picture story, in contrast to the "get down to brass tacks" tight focus of the final presentation to partners. The grade for the course and future of the projects will not depend on the media quality of this presentation, so do what feels best for your team.

Review: This will be an evening presentation at the end of the course and an opportunity for you to share your presentation and work with a broader group of members of the Stanford community and invited guests. As the final presentation will be over this hopefully will take the pressure off. It will be a celebration of your great work.

Team Process assessment [individual] by email to staff by Sunday, June 10

Deliverable: A 500 word email in which you briefly reflect on your team's process, including your own contributions. This is a chance to think about what worked and what didn't. You can use an ILike/Iwish format to help structure what you say.

Review: Teaching staff will read and take into account.

Viability Document Guidelines

One of the key deliverables for the course will be a word document that describes your thinking about the viability of the solution that you are proposing. Preparing this document will require your team to think

through the practical challenges that have to be overcome to make your solution a reality and success in the field.

The viability document must address the questions listed below. Your team should also add any additional information that bears importantly on viability.

1. Cost of solution: You don't need to have a specific budget, but you do need to have a reasonably good sense of what it will take to implement your solution. Consider typical line items such as: technology cost, people, marketing, customer acquisition, travel etc.

2. Skills required: An important part of implementing solutions in emerging markets is to ensure that there are the right skill sets available to implement the solution. Include some statement of what the relevant skills are and why you think they will be available (through your partner organization or elsewhere).

3. Customer Acquisition: How will your intended users access your service? "You may build it but they may not come." What is your plan to encourage users to adopt your service? How will they learn about it? And what will it cost them financially and in terms of time to adopt the service?

4. Government Regulation: Are there any government or other regulations that may have a significant impact on your proposed solution?

5. Competition: Is anyone else providing a similar service today or has such a solution been deployed in a different country?

6. Organization: What organization is going to carry the project forward? Does the organization have the capacity and motivation to take the project on and make it a success?

7. Other stakeholders: Are there other companies/organizations that need to be part of the solution. For example, telephone service providers, banks, government agencies, etc. This won't be a complete analysis, but should highlight the main dependencies.

Grading for the course

The course is graded units only (no pass-fail) so that all students will be on a more equal footing in terms of commitment. It can be taken for 3 or 4 hours of credit, depending on your needs. Formally think of it as a 4 credit course with the option of waiving one credit if it fits your program better to have only 3.

Individual grades will be primarily based on the team grade. We will potentially adjust them up or down one notch (e.g., from A- to A) based on individual participation, as reflected in class and in your final team process comments.

Team grades will be given based on the project deliverable milestones:

10% Stage 1 Review
20% Stage 2 Review
20% Stage 3 Review
50% Stage 4 Final Presentation

In assigning grades to these milestones we are looking for mastery of design thinking and project development. We will take into account the comments of the non-teaching-team reviewers, but in the end we will grade based on our criteria of learning design thinking. So if for various reasons, your project doesn't succeed with the partner, but we assess that you had a good process and worked seriously on the content, you will get a good grade. In the end you are working WITH the partners, not FOR them.