

Participatory Innovation



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A Pedagogical Approach To Help Students Reveal Real-World Problems

Abstract

In the digital sector, 'innovation' is a frequently overused word. Entrepreneurs worldwide are trying to innovate within their market. However, the drive for innovation can blind the creators of these products, obscuring what people actually need and want to use. Countless applications struggle or outright fail because they are created without the user in mind. Digital technology can be a powerful tool in people's everyday life but it has to be integrated in meaningful ways. Careful consideration must be placed on how these new products will integrate—and improve—life. When new products truly help people, they are more likely to resonate and succeed; this is real innovation. Everyone involved in the production of digital products—entrepreneurs, developers, and experience or visual designers (the focus of this project)—must abide by this philosophy in order for the product to be successful.

Students who are preparing to be involved with the design or production of these products need to learn ways to more deeply understand their users, identify problems, and craft meaningful solutions. With this in mind, research was conducted to identify and test methods that allow students to acquire this deeper understanding. This poster will outline one pedagogical approach which utilizes participatory design methods to help students identify problems in people's lives. For this research, visual communication design students utilized these methods in a project for the course Visual Design for the Web. An overview of the pedagogical approach, project, student outcomes, and implications for future work will be highlighted.

Introduction

The academic Design community is actively seeking ways to teach students the methodological skills they need to be successful in today's design industry. In contemporary industry, it is often more important to be impactful (or innovative) rather than technically beautiful. Craft is still an important issue, but designers now have to look at the broader, personal experience that lives around the designed artifacts. It is my hypothesis that having a people-centered methodology will allow students to be more innovative in the digital interface arena.

Methodology

I developed a project that allowed students in a *Visual Design for the Web* course to utilize a participatory design research method. Participatory Design is an approach to design that leverages the expertise and creativity of real people to design solutions for their own problems. Using this approach, students were able to work closely with people to understand their problems and design a solution together. Student work was then assessed on the design's ability to impact their user's life and address their problems.

Process

The students went through a prescribed process in an attempt to elicit their user's real problems. This process was crafted on a variety of existing processes from leading methodological thinkers like IDEO's Kelly and Elizabeth B.N. Sanders (a leader in the participatory design field).

- 1. Set context**
Identify audience
- 2. Seek a problem**
Conduct participatory design activity
- 3. Identify problem space**
Analysis of findings
- 4. Propose a solution**
Synthesize insights into proposal for a web service
- 5. Refine**
Evaluate and iterate on solutions
- 6. Communicate**
Tell an engaging story about the problem and solution

References

<http://ganci.co/ParticipatoryInnovation>

Outcomes

1. Illustrate how this frustrating part of your life makes you feel.

2. Illustrate how you would feel if this frustration no longer existed.

3. Illustrate the story of this solution. What are the key features? The physical characteristics? How would you interact with the solution?

4. Illustrate how you would feel if this frustration no longer existed.

Eliminate bad driving
programmed cars that...

| Activity | Frustration level (how often) |
|--------------------------|-------------------------------|
| Wash car | 1 2 3 4 5 |
| Simone/beta team | 1 2 3 4 5 |
| Fedex carrier | 1 2 3 4 5 |
| Earbuds | 1 2 3 4 5 |
| Go to class | 1 2 3 4 5 |
| Sit in class | 1 2 3 4 5 |
| Power for laptop | 1 2 3 4 5 |
| Do homework | 1 2 3 4 5 |
| Make your dinner | 1 2 3 4 5 |
| Review papers | 1 2 3 4 5 |
| Take you phone in shower | 1 2 3 4 5 |
| Do HW | 1 2 3 4 5 |
| Beats Solo3/other phone | 1 2 3 4 5 |
| Go to Sleep | 1 2 3 4 5 |
| | 1 2 3 4 5 |
| | 1 2 3 4 5 |

- The participatory process produced collages like the one pictured here. These collages allow participants to be more open and creative while telling their story. They also give the student a rich, qualitative data set that affords them a deeper understanding of their users.
- Another piece of the research activity primes the participants to think about problems in their life by documenting an average day on a timeline. They then rank the emotions they have as they relate to the days activities.

Examples of student innovations

1. Mobile app to make parking on campus easier.
2. Tablet app to make it easier to find quick and healthy recipes.
3. Web app to help art teachers build great projects.
4. Example of the "Communicate" phase listed above.
5. Mobile app to help motivate college students to achieve their goals.
6. Large-format touch-based app to help streamline factory work and improve worker morale.