Project Work Initialization

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Work Initialization

Work Initialization

Work will be discussed within the SD2C.

It begins with a

1. Design Box Session
2. Work Assignment
3. Lift Brainstorming
4. Lift Creation
5. Lift Assignment

> Note: This is typical for a new project, but if the SD2C is inheriting a project from a former group, some of these steps may be skipped or rearranged.

Design Box

Design Box

Design box sessions are a used in game design for digital health games and apps. It is an interative, pedagogical approach to idea pitching which allows for participation by stakeholders of all types. It consists of 4 walls: the audience, the technology, the aesthetic, and question prior to pitching designs. It has been published across multiple journals and is a hallmark approach to software development in the game and app space.

What

The Design Box is an inductive design tool built around the notion that good design solves a problem. It focuses on ideation and iteration. It can be used to develop a pitch or to design features.

How

The Design Box asks teams to brainstorm the four walls of the box audience, technology, aesthetic, and question before pitching designs. It also uses the terms as general categories. It is useful to think of the categories as families of related requirements.

Design Box Walls

Audience

The audience is defined as the end user, the client, the vendor, the retailer, marketing; anyone who is a stakeholder and should be considered in the design.

Technology/Techstack

The technology or "techstack" is defined as the delivery platform, peripherals, available development hardware, software, and team skills, accessibility requirements considered in the design.

Aesthetic

The aesthetic is defined as what should the user feel as a result of the content? Art, sound, writing style, anything that affects the tone, mood, etc.

Question

The play or theoretical question is defined as the game mechanic, theory, or core question the end product, must answer.

Process

Using any brainstorming technique, the group should fill out all four walls, bulleted lists recommended. Some walls will be more ‘solid’ than others. When a team stalls it should move on to the next wall. As teams fill out walls they may realize there are design constraints they forgot to put on a previous wall. Teams are encouraged to go back to any wall. Once theoretical saturation occurs, that is the team has no more ideas to put on the wall it should move on to pitching designs.

Using the brainstorming technique the team prefers, members should pitch designs inside of the box. That is that each pitch should address all four walls before it is written inside the box. If a pitch doesn’t fit inside of the box then it should be talked about before including.

After filling the Design Box with pitches, stop. Before evaluating any of the pitches, see if any of them provide more clarity or indicate problems with the four walls. Refine the walls based on the pitches. Finally, erase the pitches and start the process all over again.

Eventually, the walls will become more “solid” and the box will become “smaller.” The pitches that work within the revised walls will be the ones that best solve the problem. This process can be repeated as many times as necessary to arrive at a clear pitch that the team supports. It may be useful to revisit the Design Box as a tool later to clarify a feature of the product or to review if the pitch still makes sense.

> Note: Not all software will need to employ a design box session, but it will drastically help with scoping a project and allowing budget and timeline to follow as well.

DesignBoxPicture.png

Figure 1. Design box walls for initial game/app design

References

1. Altizer, Roger & Zagal, Jose & Johnson, Erin & Wong, Bob & Anderson, Rebecca & Botkin, Jeffrey & Rothwell, Erin. (2017). Design Box Case Study: Facilitating Interdisciplinary Collaboration and Participatory Design in Game Developm. 405-412. 10.1145/3130859.3131333.

2. Desselle, Mathilde, Holland, Lucy, McKittrick, Andrea, Altizer Jr, Roger, Gray, Paul, & Brown, Jason (2020) Augmenting the design box: Virtual reality pain relief for Australian burns survivors case study. In SeGAH 2020 : IEEE 8th International Conference on Serious Games and Applications for Health, 2020-08-12 - 2020-08-14, Fully Online Conference

Lift Creation and Assignment

Following a design box session, SD2C will create large, medium, and small lifts with as much granulation as possible included. These lifts are assigned to stakeholders which will be dictated by the lead developer on the project.

Lifts

Lifts are tasks that will require differing amounts of effort to get them accomplished. They can be segregated into large, medium, and small lifts.

Large Lifts

Large Lifts are defined as tasks that require multiple well-coordinated personnel and an extended timeline to accomplish, typically longer than a week. These are also usually a large part of the budget due to hours involved.

Medium Lifts

Medium Lifts are defined as tasks that require one to two personnel and 3 days to a week timeline to accomplish. These are also usually a medium part of the budget due to hours involved.

Small Lifts

Small Lifts are defined as tasks that require one personnel and <3 days to accomplish. These are also usually a small part of the budget due to hours involved.

Assignment

Following a design box session, SD2C personnel will be assigned tasks for accomplishing. If multiple engineers are on the project, the lead developer for the project will assign tasks based on their best understanding of the SD2C staff's skillset.

SD2C Kanboard Invite

For project management, the SD2C uses Kanboard.

Each team member assigned to the project works on tasks given by the Project Manager of the Kanboard. Collaborators can be added as a project member or project manager. We recommend referring to the docs for Kanboard techstack and operation.

> If you need access to the project Kanboard, please email the director at sd2c@cores.utah.edu and specify the project(s) you are on.