

Introduction:

The Team:



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Problem Domain

Human 2.0 - Productivity

Productivity is an issue many people face every day. We are trying to implement new methods for overcoming barriers to productivity.

Initial POVs

We met a middle aged writer. We were amazed to realize she tries to stay off social media to stay productive, but it's difficult. It would be game changing to find a way to keep her focused and undistracted.

We met a family-man and engineer. We were amazed to realize he had trouble scheduling time for himself and taking breaks. It would be game changing to keep people attuned to their mental or physical health for productivity.

We met a Stanford University Academic Skills Coach. We were amazed to realize research has shown that [effective] "multitasking does not exist." It would be game changing to break down and schedule tasks as manageable steps in a workflow

We met a middle-aged family man who works at a biotech startup. We were amazed to realize he felt his time during his daily commute to SF was poorly used. It would be game changing to increase productivity for daily commuters.

Additional Needfinding



We interviewed Joanne, a Stanford student involved in various extracurriculars and working part-time. For 30 minutes, we observed her working on physics homework and noticed that she would occasionally get distracted with phone notifications and sites like YouTube and Facebook. Her thoughts distracted her and compounded her stress—she saw no purpose in the work she was doing and stressed out about future work to be completed. She also shared that various stressors, especially emotional stress, could be overwhelming and halt her productivity completely at times.



We interviewed Wayne, a Marketing Manager at an Education startup learning to program on his own time. Although normally he can control his attention and task organization, he would often use social media as a distraction from anxiety during periods of great stress. He was unable to mitigate this issue until after finding a job he enjoyed. Now that he is less stressed and finds his work more rewarding, he is able to avoid Facebook more effectively.

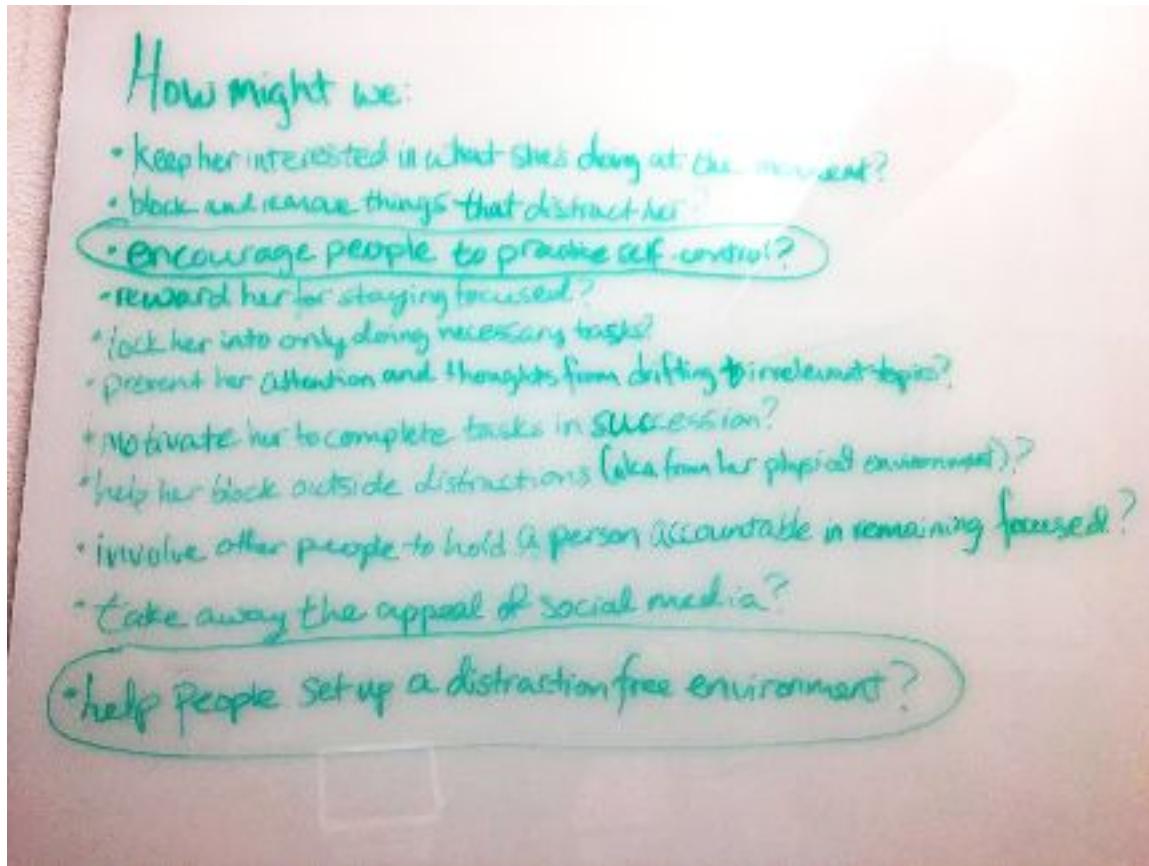
Revised POVs

Revised POV 1 - influenced by Wayne's interview

We met a stay-at-home mom and writer, Deborah. We were amazed to realize that she tries to stay off social media to stay productive, but it's difficult for her. It would be game changing to find a way to maximize her focus when she works.

HMW:

- encourage people to practice self-control?
- help people set up a distraction free environment?



Revised POV 2

We met an Electrical Engineer in his mid to late 20's, Justin. We were amazed to realize that he always uses multiple consecutive reminders because he always ignores the first one and would forget to do his task without being reminded again. It would be game changing to help people with bad short-term memory to stay focused on tasks.

HMW:

How might we:

- Create a way for people to learn to remember their tasks?
- Utilize long-term memory for short-term tasks?
- make a buddy system for users to keep each other on track?
- make remembering tasks like a game?
- make employers or clients remind you of things they're expecting in a friendly way?
- distill tasks into completable smaller tasks?
- make reminders more memorable and noticeable?
- improve a person's memory through the use of a productivity/time-management tool?
- make people take on tasks immediately rather than put them off so that they don't have to remember?
- make any task seem appealing so that it remains salient even in the mind of a person with bad short-term memory?
- Create a tool that rewards users who don't ignore reminders?
- Constantly remind people of tasks without bothering them?

Revised POV 3 - influenced by Joanne's interview

We met a Facebook Engineer and former business owner, Martin. We were amazed to realize that he had trouble remembering to make time for things outside of work. It would be game changing to increase productivity by helping people improve their health.

HMW:

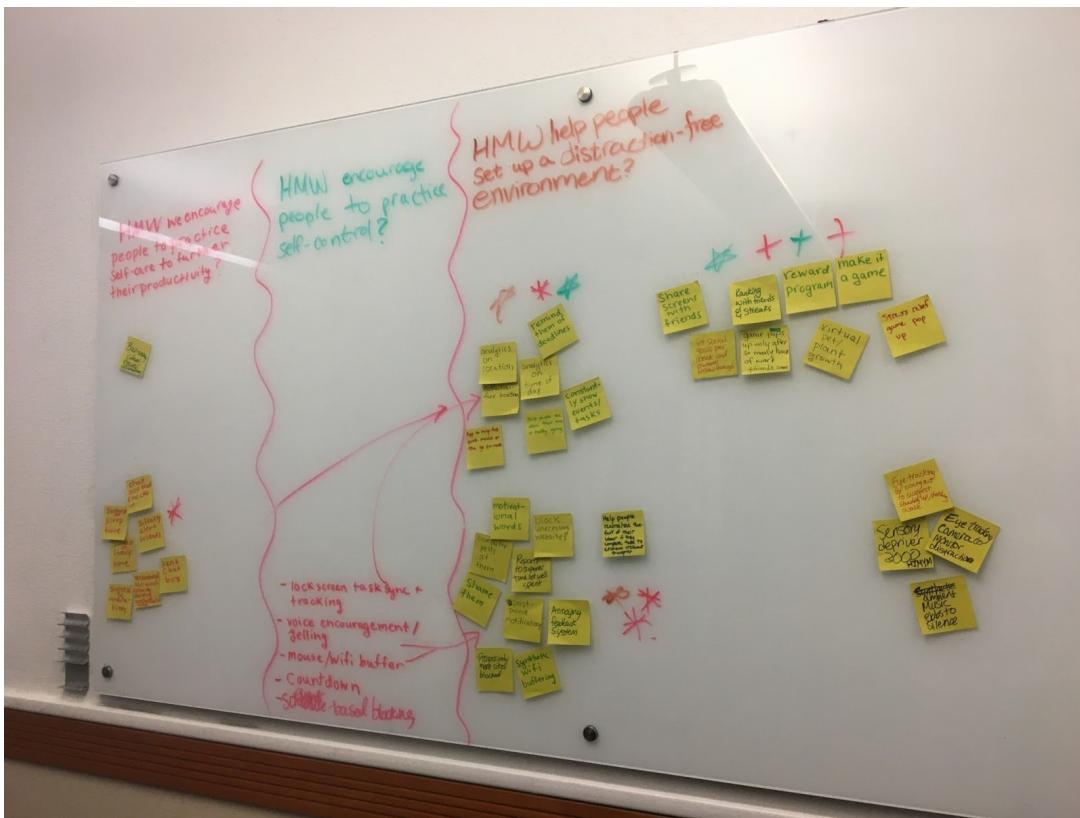
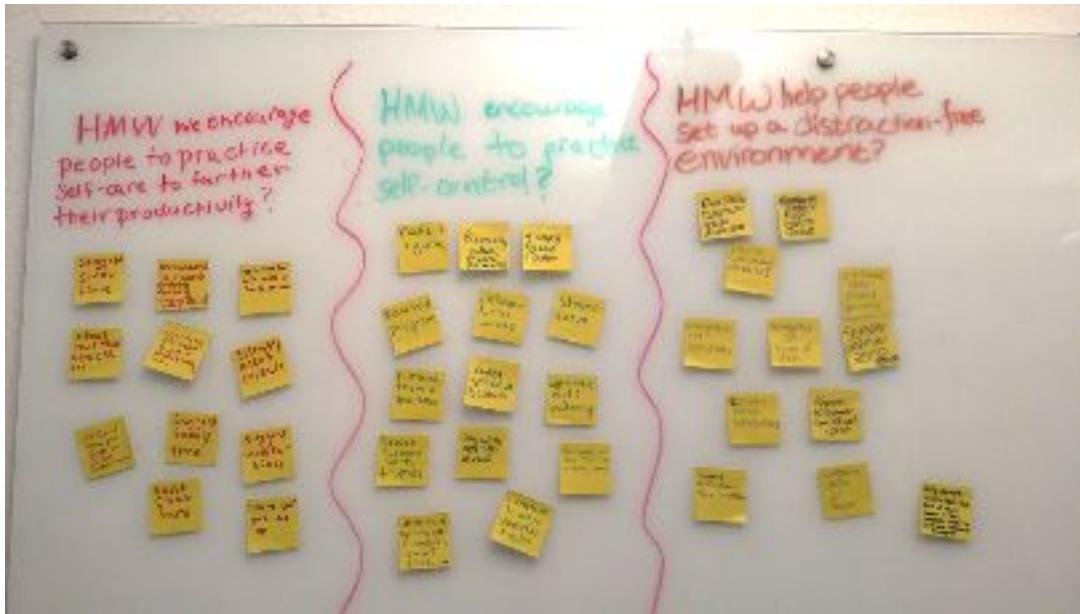
- encourage people to practice self-care to further their productivity?

How might we:

- channel positive energy to drive productivity?
- mediate negative emotional/mental energy to improve productivity?
- mediate people's stress levels during highly productive periods?
- remind people to do non-work activities to make them happier to be productive?
- make scheduling reminders of tasks like a spa, a relaxing zen-like process?
- help people be mindful of dips in their mental/physical health (if can be anticipated)?
- make scheduling free time, breaks, non-work activities more integrated w/ productivity tools?
- adapt people's work schedules to match/help their mental/physical health?
- make people consider self-care tasks as equally important as work-related tasks?
- encourage people to practice self-care to further their productivity?

Best Solutions

Brainstorm



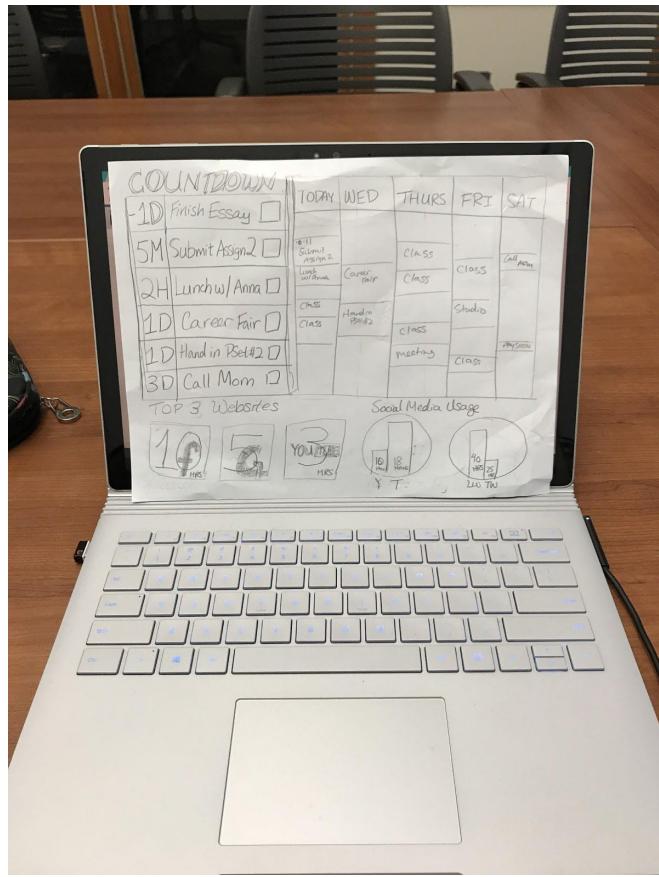
Solution 1

How might we encourage people to practice self-control?

Create a prominent visual display for user's tasks, to-dos, and internet/social media usage to keep them constantly reminded and focused

We assume that visual reminders of tasks and time spent working on the homescreen/new tab screen increases productivity

Making the prototype: The prototype consisted of a paper with a rough sketch of the visuals we would use to help users understand their to-dos and how their time was spent



Testing: We placed the visual prototype over the consenting subject's laptop screen. We asked them a series of questions regarding how they felt about it and potential use (i.e. how the screen made them feel, what they felt like doing after seeing it, etc.)

We found that having all that information made users feel a bit overwhelmed, ashamed, and stressed. They suggested making the interface neater, less cluttered, and less threatening. In addition, the incorporation of the top three websites visited and the hours was not well received.

What users did like were the graphs showing trends in their usage of social media to motivate them to limit usage. They thought that seeing all this information would make them want to get work done initially, but would leave them frustrated after long-term usage.

We learned that while aggregating this information is useful for users, we need to find less intimidating ways of displaying it. Our assumption was valid, as the subject said it would be useful for him, but only temporarily because he would probably be tempted to cease usage.

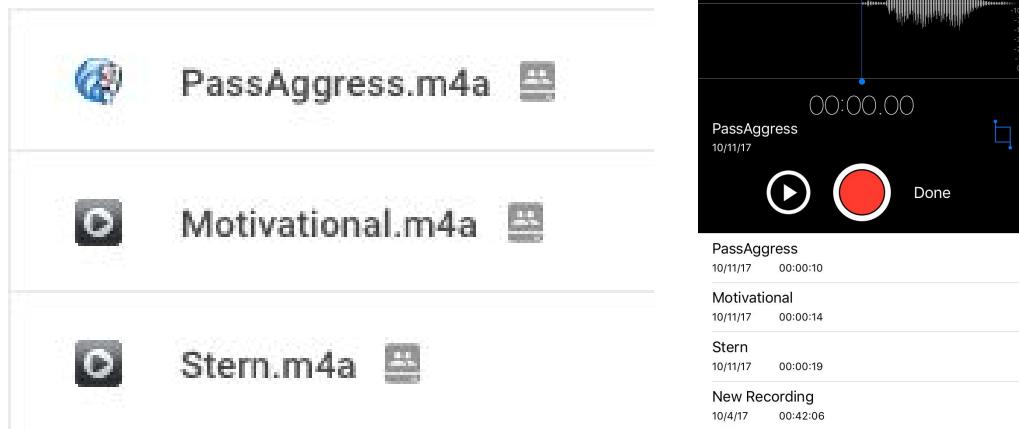
Solution 2

How might we help people set up a distraction free environment?

Use auditory provocations in order to make people return to work when they go to non-work websites

We assume that vocal or auditory cues will increase productivity by effectively reducing social media distractions

Making the prototype: The prototype consisted of pre-recorded audio files to be played when a user was distracted from work. We asked people to work for an undetermined amount of time and then switch to their favorite social media site, at which point we played an auditory cue to keep them on track.

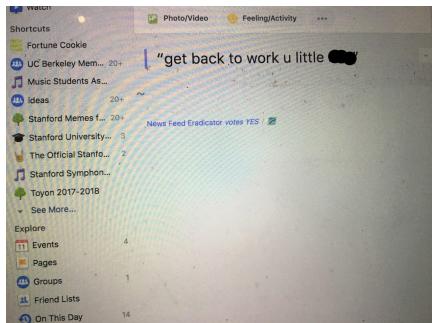


Testing: We recorded three audio files, each for a different encouragement personality: Motivational, Stern, and Passive Aggressive. Motivational statements included, “Keep up the good work, don’t get distracted!” and “Don’t stop, you can do it!” Stern statements included, “You need to do your work” and “Stop slacking off”. The passive aggressive statements included, “Is that a good idea?” and “What do you think you’re doing?”

We tested the prototype in the user's room while they worked on homework. We covertly observed their behavior. The moment they went on a non-work site, we played one of the recordings and noted their reactions. Afterwards, we asked for their feedback/thoughts. We repeated these actions with the other recordings.

We found that the auditory prototype was ineffective because it was too easily muted/disabled. Furthermore, the stern and passive aggressive tones drew very negative responses. Both subjects felt negative emotions, including annoyance, anger, guilt, and frustration. Thus, they resisted and felt more combative/non-compliant.

Both users stated that the motivational tone was slightly better. However, they would probably not use it, since they would become annoyed eventually. Kaitlyn stated, "if I'm not in a bad mood and it was more motivational and nice, maybe I won't be like 'shut up stupid computer voice.'" They suggested making it more difficult to avoid, more positive and/or humorous (see Kaitlyn's suggestion below), implementing an aspect of reward system through points, achievement, or competition with friends, and metrics that won't instill fear. For instance, Marcus stated, "perhaps have a pop-up that says 'you're awesome, you haven't been on Facebook since 10 hours ago today'."



On the left, Kaitlyn's facebook newsfeed blocker with a self-written quote. She stated that, "whenever I see this, I laugh, and it kinda mitigates my annoyance and anger at being blocked from Facebook."

The assumption was not valid because auditory cues or prompts were too easily muted/avoided so the user did not stop using a non-work site and return to being productive.

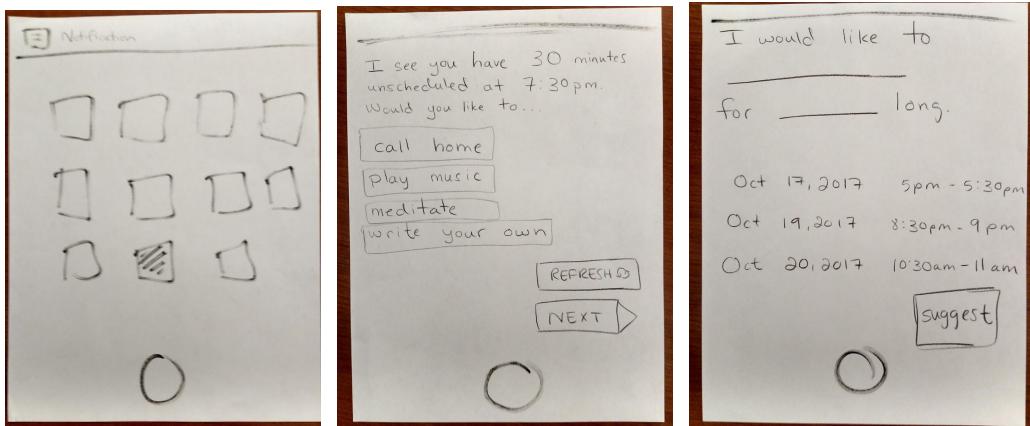
Solution 3

How might we encourage people to practice self-care to further their productivity?

Give occasional reminders to users about tasks they wouldn't normally schedule on their calendar, such as making time for family/friends or self-care (meditation, exercise, music, etc.)

We assume that people will appreciate, and accept, self-care activity suggestions when reminded during their free time

Making the prototype: The prototype was a rough sketch of a mobile phone, with 1 sheet of paper for each interface. There were three interfaces: device home screen with notification in status bar; activity suggestion screen (notification is pressed); default app home screen where they can self-initiate scheduling or suggestions.



Testing: We sketched a mobile device on paper; each sheet represented a possible interaction the user could have with the application. We asked a user to interact with the prototype as he was on his way to class. This time limit added an element of urgency to the experience which tested the interface usability under real-time constraints. We informed the user he had received a notification in the status bar suggesting an activity. The user stepped through the functionality of the app through mock-button presses, until his activity of choice was scheduled. Finally, we recorded feedback.



The default home screen, which doubled as the “write your own” feature was slightly confusing to the user. In particular, he was unsure why he had to schedule the duration when there were already timeslots on the screen. Additionally, many suggestions were not relevant to the user.

The user thought the notification feature was helpful and intuitive. He thought the automated scheduling reduced the time/cognitive load required to schedule non-work activities; this would make it much more appealing to schedule time for himself. Moreover, writing his own suggestion was a well-received feature.

We learned that there exists a need to make calendar organization much more streamlined; although the user doesn't currently schedule non-work items, the interaction was short enough that the user accepted the suggestion graciously.

The assumption was valid because the subject expressed great interest in the application, and thought the short scheduling time made it easy to add self-care items to his calendar. An assumption which can be drawn from this experience is that the success of this application hinges on the short amount of time/clicks required to schedule an activity.

Most Successful Prototype

The most successful prototype in achieving a desired solution was Prototype #3, self-care activity suggestions. The user mentioned he might only use the visual-reminder prototype temporarily, and that he felt stifled by the layout. Not only was the aural-stimuli prototype negatively received, the facility with which the audio cues could be disabled rendered the concept useless. The final prototype received overwhelmingly positive feedback due to ease of use. The user not only accepted, but appreciated the activity suggestion; hence, this prototype was the most successful in achieving the desired solution.