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UX 201

13 November 2019

The Pillbox Project

At the beginning of the Box project, my group's ideas were all over the place. Though, one thing all of our ideas had in common was the humanitarian aspect where we wanted to help people. Due to the medical field having one of the largest user demographics, we felt we could find a niche that would allow us to reach the largest amount of users while still incorporating the hacking of a box. With this line of thinking, we thought of the pillbox since the use of medication will always be constant and worldwide.

In order to consolidate the idea of the modular pillbox, my group incorporated the use of Ratto's three stages of critical making (253) and McGlashan's enhancements for creative ideation (378). We first went over various existing pillbox examples, then critiqued and innovated new redesigns involving those evaluations. During the redesigning, we often applied rapid and detailed sketching (McGlashan 378) or used transitional objects (Ratto 254) in order to pantomime the different functions we wanted the pillbox to have. Often, it was difficult for everyone to fully comprehend the ideas each person within the group had, though eventually, we were able to consolidate the various features that we thought effective towards the user experience of the pillbox.

For the first iteration of the pillbox, ideally, it would function much like an advent calendar. It would be light and compact enough so users would have the choice to hang it wherever they would like in-home. The box's face would be like a whiteboard calendar while

having enough surface area to be further personalized (ie. via decorating). The compartments within the pillbox would be modular: so users would be able to detach the calendar compartments then link the individual segments together. Lastly, the pillbox would be Bluetooth enabled and linked to a tracker app on the user's phone, allowing them to unlock/lock each calendar compartment while tracking their medication intake to prevent overdose.

The pillbox is functional, accessible and ergonomic since when being linked to the app, it's locking function and alert system would prevent overdose. Also, in case the user has any children, the function would also prevent children from getting into any medication that isn't meant for them. Additionally, the writability, personalization, incorporation of app use and ability to be hung anywhere allows for further interaction with the pillbox, integrating it into the user's daily lives as memory queues for regular medication intake. That said compartments will also be designed to be spring-loaded and large enough so that any sized digit of any user of any age with any amount of strength would have easier access to their medication. Lastly, with the ability for compartment detachment and linking, it allows users to conveniently take their pills wherever on the go. And with the help of an attachable keychain for the pillbox, the linked segments would have a more difficult time disappearing to the bottom of any bag.

Overall, I think my group's redesign of the pillbox is effective. Though moving forward, it might be a good idea to use a transparent whiteboard material instead of the opaque material to enable for better memory queues. Additionally, consideration for how the modular compartments, mechanisms, and tech would fit into the pillbox will have to be used since it would be ideal to reduce the total amount of material used for manufacturing. Lastly, additional research and user interviews will have to be conducted in order to better understand the struggles and wicked problems that will have to be amended for.

Works Cited

- McGlashan, Ann. "A Pedagogic Approach to Enhance Creative Ideation in Classroom Practice." Springer Science + Business Media Dordecht, 2017. Int J Technol Des Educ, vol. 28, 2018, pp. 377-393.
- Ratto, Matt. "Critical Making: Conceptual and Material Studies in Technology and Social Life." *The Information Society: An International Journal*, vol. 27, no. 4, 2011, pp. 252-260.