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Open Innovation Platform Design: From User Experience to User Interface Design

Vanessa Roy
San Diego State University, vroy6916@sdsu.edu

Elijah Nobis
San Diego State University, enobis0387@sdsu.edu

Kaveh Abhari
San Diego State University, kabhari@sdsu.edu

Francezca Dagoc
San Diego State University, fdagoc@sdsu.edu

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TREO Talk Paper

Vanessa Roy
San Diego State University
vroy6916@sdsu.edu

Elijah Nobis
San Diego State University
enobis0387@sdsu.edu

Kaveh Abhari
San Diego State University
kabhari@sdsu.edu

Francezca Dagoc
San Diego State University
fdagoc@sdsu.edu

Abstract

Open Innovation as a business strategy has been used by companies for decades. Leading brands such as GE, BMW, P&G, Samsung, and LEGO have successfully utilized open innovation tactics to inform their product design and marketing. However, Social Product Development (SPD) has been recently introduced and popularized as an open innovation model. As a business model, SPD monetizes the collaboration between an organization and creative communities through introducing new products and services. Either managed by intermediaries or directly by innovation sponsors, SPD platforms enable and support online innovative communities to ideate, collaborate, and network. These platforms allow innovation seekers to harvest the crowd's creative capacity and validate their new product concepts and novel service ideas. Yet, these platforms typically fall short in offering a robust user experience. User experience design is one of the critical success factors for online communities, and innovation community is not an exception. Focusing on a users' needs, values, and abilities in UI/UX design has proved to encourage user engagement, maintain their participation and enhance the quality of the contribution. Lack of sustainable engagement, steep learning curve, and absence of critical ideation tools are the challenges that stem from the primitive design of open innovation platforms including SPD platforms. Hence, further research deems necessary in order to understand and improve the design of these platforms. Narrowing this gap, we studied the cases of Edison Nation and Quirky, two SPD platforms, designed to connect businesses and investors to community inventors in support of new product development.

Edison Nation works directly with investors, manufacturers, and retailers that are actively searching for new product ideas. Likewise, Quirky assists inventors in creating products with the help of designers and manufacturers. Both platforms are designed to solicit new product ideas, support the development and selection process, connect the members, and provide feedback and updates on different projects. New product concepts are submitted to their secure portals on both platforms and then processed for selection, revision, and market validation. Then, if successful, a portion of the revenue is shared with the individuals who developed, promoted, and brought the product to life. These products are then sold through various manufacturers and retailers such as Amazon, Best Buy, Black & Decker, and Bed Bath and Beyond.

We studied user experience on these platforms from the perspective of their experiential values. The data was collected from Edison Nation and Quirky's discussion forums and through the content analysis of the discussion topics related to user experience. To guide our content analysis, we first identified the key UI/UX elements related to existing platform functions: ideation (e.g., search, design, spark, submission), networking (e.g., forums, friends), and management (e.g., dashboard, help, guide). Then, we examined how users perceive the values of different functional affordances offered by these elements in terms of behavioral experiences (e.g., to create, be efficient), emotional experience (e.g., feel valued, have fun), learning experience (e.g., to develop skills, test ideas), and social experience (e.g., to connect to likeminded people). Informed by the users' feedback, our findings revealed the importance of 21 UI/UX elements in designing SPD platforms. Lastly, we discussed how these design elements can facilitate the open innovation key activities including social engagement, ideation, experiential communication, social validation, co-development, and co-commercialization. In combination with the rapid growth of SPD platforms, the results shed light on the importance of UI/UX in open innovation platform design and governance.