Triptech: A Method for Evaluating Early Design Concepts

Triptech is solving an important problem of evaluating user experience (UX) in the early phases of product development and the challenges of incorporating validated user needs when working in technology-driven innovation environment. Currently there are few methods to evaluate UX in the early phases of product development, yet there is an important unmet need for teams to measure UX early on when developing a new product. Measuring UX is a way to test how well a proposed computer system meets and supports the needs of its users, and how well it may reduce the gulfs of execution and the gulfs of evaluation between users and the system. However, there are challenges in incorporating user feedback in technology-driven innovation because conceptual product breakthroughs are driven by technological advancements rather than validated user needs. As a promising solution to this challenge, Triptech allows teams to evaluate and compare user needs through surveys based on frequency and importance, and then test and evaluate design concepts that address the needs by utilizing focus groups, storyboarding, and speed dating methods to rate the ideas on desirability and perceived utility. It draws on these existing design methods to formulate a more systematic approach to evaluating design concepts in their infancy, which is compatible with both user-centered design and technology-driven environments.

This is what Triptech does well — it is able to bridge the long-recognized schism between user-centered design and technology-driven innovation. It does so by choosing quick, easy, and measurable design methods that can generate generalizable results that inform teams what user needs are truly important to the users with indication of frequency and magnitude of importance, and it is important to note that these design methods by nature are more compatible with fast-paced tech-driven environments as opposed to lengthy and potentially more costly qualitative design methods such as ethnography and user observational studies. This gives clear and actionable user needs that teams can choose to ideate on. Then after ideation, Triptech assesses the usability and desirability of design concepts from user feedbacks collected from focus group studies. By measuring how well the design concepts align with user needs, teams can create products that resonate with their users by solving truly important needs while deprioritizing design concepts that do not address needs important to users, saving resources and efforts that could have went into developing products that users do not need.

One concern that I have, however, is that relying on surveys to gather user needs has an inherent quantitative focus, and it may not equip design teams to understand their target users more deeply by understanding, for example, user tasks and conceptual models. A clear understanding of user tasks and conceptual model can be extremely helpful in new product idea generation. It will help new product designs to align with user's mental model while supporting user tasks in their use context, thereby reducing the gulfs of execution and evaluation. It involves a more holistic design thinking process that considers various use cases in their authentic contexts. While the use of storyboarding in Triptech can contextualize use cases to some extent, it is also important to contextualize potential user needs and problems in the first phase of user needs evaluation. Although this contextualization may require teams to be more involved in evaluating and defining their user needs, it does not need to be — a simple hierarchical task analysis can help teams to clearly define and illustrate a problem in its fullest context. By including qualitative design methods, teams would be able to better understand user needs and

user's conceptual models and avoid design concepts that fail to consider the bigger context of a use case early on.

Despite the lack of qualitative evaluation of user needs, Triptech is an important step in bridging the long entrenched divide of design-driven innovation and technology-driven development. It adopts some existing design methods that are quick and easy to use and compatible with fast-paced tech-driven environments. Considering the importance of this work and its potential contributions to the field of HCI and UX design, I hereby submit my recommendation for this case study to be accepted.