

Building Mobile User Experiences

Frank Bentley and Edward Barrett
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In *Building Mobile User Experiences*, authors Frank Bentley and Edward Barrett seek to develop mobile products that bring joy, connect people in new ways and fit gracefully into the user's world. In a concise and accessible way, they describe what you need to know to research, prototype and test successful mobile services. Their process has grown out of a class they teach at MIT in mobile design, along with more than a decade of product development at Motorola.

Building Mobile User Experiences is full of case studies that illustrate their approach. One service they have developed is "Serendipitous Family Stories," which allows people within the same social network to create videos connected to a particular geographic location. For example, grandparents can use this app to make short videos about the places where they met, worked and lived, and then tag each video to its geographic landmark (for instance, dance hall, factory and house). As their grandchildren drive by the landmark, their phone will vibrate, which is a cue to watch the video that is connected to it. In this way, the grandchildren learn about that location's importance to their family history.

The authors' research methods combine anthropology, usability, design and computer science. They seek to gain an understanding of how people adopt new technology in their lives by directly observing their behavior through ethnographies, semi-structured interviews, task walkthroughs and photo and written diaries. Their most valuable insights come from qualitative research, but they also collect usage data as they develop and evaluate product ideas. The authors came up with the idea for Serendipitous Family Stories through ethnographies and interviews and by analyzing phone conversations. They asked respondents to store their phone conversations to a memory card, which they submitted at the end of each week. The team listened to the calls, searching for specific themes in the social interactions, such as references to family and how families talked about locations with each other.

Each study produces hundreds of ideas. The challenge is narrowing the field down to the ones that can be patented, are implementable and have market potential. One chapter describes the winnowing and evaluation process, which leverages affinity diagramming against raw data. The next set of challenges involves turning the best ideas

into crude working prototypes to put into users' hands. The authors describe an iterative beta process that can go on for several months and involves collecting usage data and running more qualitative research studies to see how people use the product over time.

In an interesting and engaging way, Bentley and Barrett describe the technical compromises that need to be made when designing a mobile service. For example, if you are trying to create an application that relies on sensing the mobile user's location, such as Yelp, your service will quickly drain the user's battery if it provides street-level vs. zip-code level accuracy. Technical limitations play a major role in mobile user interface design, so it is important to have a practical grasp of what these are.

QRCs should find value in this book on several levels. It details a novel but tried-and-true approach to doing qualitative research in the mobile realm. It also provides an easy-to-understand education on everything you need to know to turn an idea into a successful mobile service. Finally, *Building Mobile User Experiences* offers an opportunity to gain a ground-level understanding of what user-experience research and design are all about. 📧

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