Developing the Intel® Pair & Share Experience

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EXECUTIVE SUMMARY

Intel developed the Intel® Pair & Share application with dual purposes. The first purpose was to deliver a high quality user experience that allows users to share photos seamlessly from their smartphone or tablet to a PC. The second purpose was to serve as a real world application we could use to develop and document a set of best known methods for cross-device user experiences. In this chapter, the interdisciplinary approach taken is outlined to develop a cross-platform consumer software product that allows users to share pictures from iOS and Android* devices to their Windows* PC. An initial question was posed, "What can we do to maintain PC relevance given the widespread use of smartphones?" This question eventually evolved into a much larger question, "What can we do to improve user experiences and interactions across all of users' devices?" In this rapidly changing landscape, the authors have seen the disruptive influence of smartphones and tablets on the consumer experience. Each platform has different user interface conventions and interactions that impact the user expectations. In turn, the authors have embraced the notion of cross-device, cross-platform connected user experiences and strive to create best–in-class applications that take advantage of the benefits of each platform.*

**Other names and brands may be claimed as the property of others.*

ORGANIZATION BACKGROUND

Intel has a long history of being a semiconductor manufacturing company, which to be successful has followed a few philosophies that have permeated our approach toward product development; Moore's Law (Moore, 1965) states that the processing power will double every two years and Copy Exactly! These mantras have served Intel extremely well when the emphasis and focus was solely on hardware manufacturing, which is largely hidden from the end user. In recent years, Intel has begun the journey toward the user with their products. Specifically, we have started to place emphasis on software and solutions that inherently bring Intel closer to the consumers and their user experience. The company's unprecedented focus on user experience will continue to benefit our consumers for years to come.

SETTING THE STAGE

Intel is amidst a transition from a PC computing company into a computing company that includes a significant effort on both software and solutions for consumers. The Intel® Pair & Share application was developed in a software group that is located within the PC Client Group. This is an interdisciplinary team that includes Software Architecture, Developers focused on prototypes, Human Factors Engineers, Interaction Designers, and Visual Designers. The key role of a software architect is to partner with key stakeholders to refine product architectures and identify future product opportunities. A prototype developer focuses on evaluating the software architecture and design, usage-driven path finding and evaluating technical constraints to promote the design and development of sound solutions via empirical analysis. A Human Factors Engineer uses what they know about human capabilities to design products, processes, and systems to improve ease of use, system performance, and user satisfaction. In contrast, an Interaction Designer focuses on creating product workflows that communicate its function to the user so they can complete their intended tasks. A Visual Designer is someone who develops visual materials to create an experience using elements of visual expression and style. These roles form a core team that works together to develop the user experience of a product incorporating technical constraints, stakeholder requirements, and end user needs into a product with a quality user experience. We have structured our product design and development around interdisciplinary teams that work together to iteratively develop products from a user perspective.

We define a cross-device experience as one in that a single user or multiple users are using the same (or compatible) application simultaneously on two or more con-