

incorporates different classes of devices for specific tasks, allows information access via the mobile device, and supports collaboration on the shared planning desk.

5 Discussion and Conclusion

We presented MoCoShoP, a system that supports customers in retail stores during the process of collecting information on potentially interesting pieces of furniture, and further, during the process of planning how the collected products could fit into their devised layout. While the personal mobile devices are used for information collection, the large interactive surface is used for collaboration and shared discussion.

Our prototype implementation of MoCoShoP demonstrates that the effort for deploying such a system is moderate and existing environments can be easily augmented: product labels with either integrated NFC tags or simply printed barcodes are low-cost factors and interactive surfaces to be used as planning desks will be relatively cheap as technology matures. MoCoShoP combines the benefits of e-commerce and traditional retail stores to improve the user experience.

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References

1. G. Broll, H. Palleis, H. Richter, and A. Wiethoff. Exploring multimodal feedback for an NFC-based mobile shopping assistant. In *NFC 2013*, Zurich, Switzerland, 2013. IEEE Computer Society.
2. R. Hardy and E. Rukzio. Touch&Interact: touch-based interaction of mobile phones with displays. In *MobileHCI '08*, pages 245–254. ACM, 2008.
3. A. Lipsman. \$41.9 Billion in Q3 2012 U.S. Retail E-Commerce Spending. http://www.comscore.com/Insights/Press_Releases/2012/11/comScore_Reports_Q3_2012_U.S._Retail_E-Commerce_Spending, Nov 2012. (Last Access: 2013/03/25).
4. J. Rekimoto. Pick-and-drop: a direct manipulation technique for multiple computer environments. In *UIST '97*, pages 31–39. ACM, 1997.
5. D. Schmidt, J. Seifert, E. Rukzio, and H. Gellersen. A cross-device interaction style for mobiles and surfaces. In *DIS '12*, pages 318–327. ACM, 2012.
6. F. von Reischach, D. Guinard, F. Michahelles, and E. Fleisch. A mobile product recommendation system interacting with tagged products. In *PERCOM '09*, pages 1–6. IEEE Computer Society, 2009.
7. A. Wiethoff and G. Broll. Solofind: chains of interactions with a mobile retail experience system. In *CHI EA '11*, pages 1303–1308. ACM, 2011.