Rush: Repeated Recommendations in an Automotive Context

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ABSTRACT

With powerful entertainment systems in cars, the growing size of multimedia collections becomes a problem: The requirement of short interaction cycles in order not to distract the driver too much collides with the overhead of navigating thousands of items to create a playlist. We propose to use the *rush* interaction technique for such scenarios: The system repeatedly generates recommendations based on the user's previous choices from which the user is again able to choose and thus allows him to create a personalized playlist without much effort or distraction. In this paper, we present a discussion of this concept in an automotive context.

INTRODUCTION

Supporting the entertainment needs of driver and passengers is more and more important as in-car entertainment systems grow in size and complexity. Yet, with larger media collections it becomes increasingly time-consuming to create suitable playlists. Automatic playlist generators try to fill this gap, but produce not necessarily very personal results that fit the current mood. We propose to use the *rush* interaction technique for in-car touch-screen entertainment systems.

RUSH

Rush [1] is a semi-automatic interaction technique for mobile touch-screen devices that allows creating personalized music playlists with minimal user interaction. After choosing the initial item, the system generates five recommendations based on that. The user is able to pick one or more songs from this set, which causes the system to show a new set of suggestions based on the user's previous choice and so on (see Figure 1). The whole interaction is based on fluid gestures and crossing items on a touch-screen.

IN-CAR RUSH

Rush allows the user to shape the result according to his wishes without the overhead of searching a complete collection. The process can be interrupted or stopped at any time which makes it suitable for the necessarily short attention
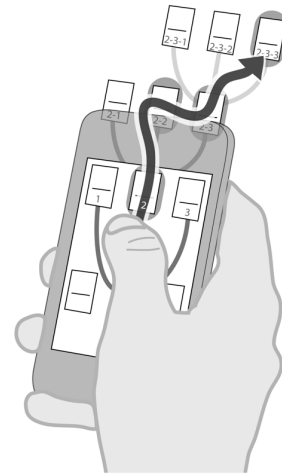

Figure 1. Repeated recommendations on a touch-screen device

span of a driver. The interaction technique was originally conceived for mobile devices, but can be adapted to the in-car scenario:

- The required touch-screen interaction is possible either on one of the displays of the car or on the nomadic device attached to the entertainment system. To minimize the distance of the attention shift the set of suggestions could also be shown on the head-up display.

- Previews of songs via the on-board audio system or haptic feedback on the touch-screen can also help the driver with keeping his eyes on the road.

- Finally, the fluid gestures could be replaced by distinct tapping, thus removing the need to keep the finger on the screen.

CONCLUSION

We proposed rush as a suitable technique for low-overhead in-car entertainment interaction and discussed possible adaptations to make it more suitable for this scenario.

REFERENCES

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