

Design of an In-Home Educational Robot for Reading

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ABSTRACT

UPDATED—June 30, 2016. This paper describes the development and initial pilot testing of an in-home, educational robot designed to be a reading companion for upper elementary and middle school students. In order to increase student engagement with the robot, we implemented five specific design features based on recommendations from interest and motivation, as well as human-robot interaction literature. We conducted in-home interviews with families to examine current habits and views about reading, and how this educational robot might be used. Initial results indicate that the robot was perceived as friendly and engaging, and that use might increase interest in reading. We also found that ease of use and start up time may be prohibit frequent and long term use. We conclude with design recommendations and future work based on these findings.

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INTRODUCTION

These design features include the robot being programmed to do the following: provide book recommendations based on topic interests, individual interest for reading, and feedback after completing a book; allow the child to choose what book they read; set and monitor reading time goals; give feedback that refers to previous interactions with the child; and respond with detailed comments that relate to what the child is currently reading.

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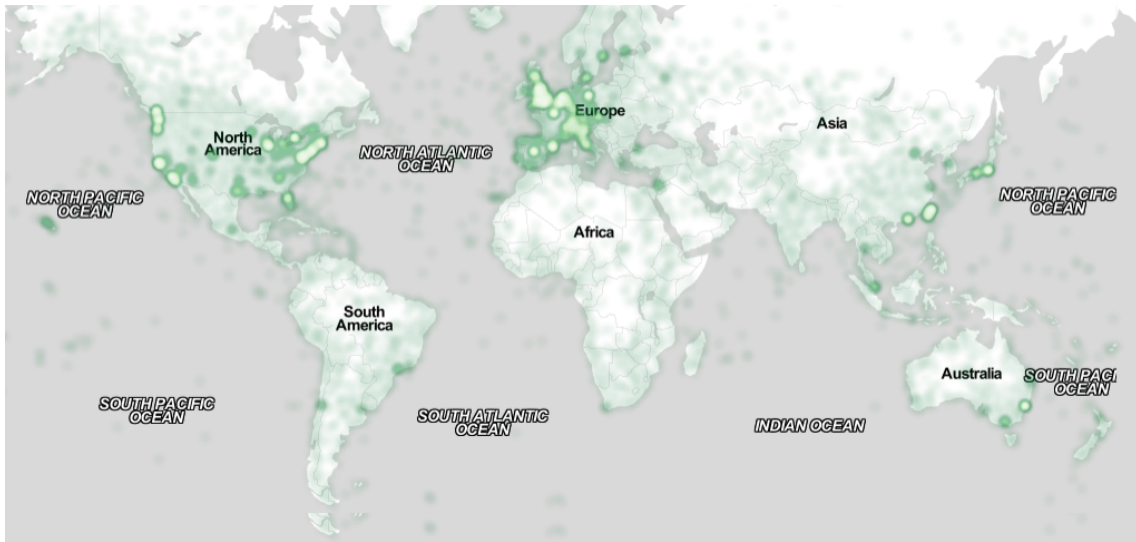


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