

Mobile Collaboration for Young Children

Jerry Alan Fails, Allison Druin and Mona Leigh Guha www.cs.umd.edu/hcil/mobilecollaboration/



Overview



Social interaction and **collaboration** are essential to the emotional and cognitive development of **young children**. **Mobile devices** can support the learning experience as children can create artifacts in various contexts. The proposed research incorporates collaboration, constructionism, children, stories and mobile technologies; specifically investigating developmentally appropriate interfaces to support mobile collaboration for young children (ages 6-10).

Mobile device limitations can be overcome by bringing people and devices together.

Research Questions

1. How do collaborative mobile technologies affect children's collaboration?
2. What are the appropriate interfaces for co-present mobile collaboration with children?
3. What are the appropriate interfaces for switching between different modes of collaboration and varying levels of creation/consumption?



Desktop vs. Mobile Collaboration



Procedure

Children (ages 6-10) will read and create a collaborative story in pairs using three different **collaborative configurations** (independent, space sharing and content splitting) and each platform (traditional desktop computers and mobile devices).

Children will be able to switch between the collaborative configurations.

Data Collection & Analysis

Notes, guided interviews, interaction logs and video will be used to investigate:

- ❑ For which tasks are certain configurations are used and/or preferred?
- ❑ How do the children collaborate with each platform using each collaborative configuration?
 - How were teams able to accomplish the reading/creating story task?
 - How do team members negotiate and exchange information?
 - For what types of tasks do children work co-located versus separate?
- ❑ Which platform is preferred in which situations?

Special thanks to those who have helped with this project at different stages: Gene Chipman, Kevin McGehee, Juliette Taillandier, Shaili Desai and Bobby Owlolabi

Collaborative Configurations

Mockups below use page from Ciconia Ciconia (White Stork) by Andrea Petrlik published 2003, Kašmir Promet – Croatia, Available in the International Children's Digital Library (ICDL)

Independent



Same page on each device

Different pages on each device

Space Sharing



Spread across devices (zoomed in)

Two page view (zoomed out)

Content Splitting

