Presentation Title

Kindsicher: Safe Internet Browsing for Unsupervised Children

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Abstract

In a modern society, children must increasingly use the Internet for required tasks such as homework and communication with parents and other family members, not just for optional tasks (such as games and entertainment). The amount of required use means that children must often use the Internet when their parents cannot supervise them. This carries significant risk that the children will encounter Internet content they are not able to handle, or that would exploit them. Most previous work on improving children's Internet safety focuses on identifying "bad" content and blocking it. The amount of work to identify "bad" content is, however, beyond the capabilities of most families. Commercial services exist that classify content, but they are still stretched to adequately deal with the volume of legitimate content, and black hats are continually finding new means of circumventing the service's products. Further, outsourcing content classification prevents a parent from restricting content for family-specific reasons. For example, a child may have a phobia about spiders, or a parent may want to insist on accompanying a child whenever they visit certain online shopping sites, so the parent can teach good consumer practices during the shopping session.

We present Kindsicher, a children's Internet safety system that addresses these issues by taking the opposite approach: parents define the Internet sites they believe are appropriate for their children to visit unsupervised, and access to other sites requires parental intervention. Kindsicher has the additional advantage that it is implemented as home network infrastructure, so its protection is automatically extended to new devices brought into the home (for example, when a friend arrives with a Wi-Fi tablet).

Date and Time

Tuesday 9 Dec 1:30-2:30, MEB LCR.