PIAK: A PERSONALIZED INTERNET ACCESS FOR KIDS

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ABSTRACT. Children are Internet users and as such they need to be protected from all inappropriate information available on the Internet. This paper is describing the components of a Personalized Internet Access system for Kids called PIAK. This kind of systems will allow children to browse the Web in a secure environment. The personalized features are individual welcoming message, recommended webpages, a Web search guided by preferred categories, and targeted educative mediums. A preliminary usability assessment of the system is reported in this paper indicating that all implemented personalized features are working properly.

Keywords: personalization, Internet access, children

INTRODUCTION

Diverse definitions can be found in the literature for the term "personalisation". Mulvenna, Anand, and Büchner (2000) stated that the goal of personalisation is to provide users with what they need without requiring them to ask for it explicitly. However, when the users are children, the "what they need" require some controls, mainly in the context of Internet browsing when parental guidance and supervision are missing. In general, children like playing, and thus they will search for online games. It is known that not everything on the Internet is good. For example, free online games are available for download at Google Play Store. These free applications are often equipped with adware, which actively provides unlimited advertisements. Children may also end up playing unfit games or even worse their online behaviour can be tracked and learned for recommendation purpose, which might suggest unsuitable webpages and advertisements. These situations are exaggerated as with the advancement of advertisement delivery, Web providers are able to recommend similar games effectively personalized to the user interests (Qaffas & Cristea, 2016). Nevertheless, these exaggerated situations are possible and need to be considered. As highlighted by Ybarra and colleagues (Ybarra et al., 2014), violent computer games often bring adverse effects to the child psychology.

This paper describes a Personalized Internet Access system for Kids (PIAK), which will allow them to browse the Web in one secure environment with personalized features.