COPPA COMPLIANCE: A Cooperative Inquiry Perspective

Zach Pease

University of Baltimore

Baltimore, MD, 21201 USA

Zachary.pease@ubalt.edu

Greg Walsh

University of Baltimore

Baltimore, MD, 21201 USA

gwalsh@ubalt.edu

Abstract

This proposal records a cooperative inquiry investigation of possible technological solutions to help facilitate compliance with the mandates of the Children's Online Privacy Protection Act. It details the results of a session conducted by KidsteamUB at the University of Baltimore, and details the possible implications of the findings

Author Keywords

Children; design; COPPA; design techniques; cooperative inquiry

ACM Classification Keywords

D2.2 Design tools and techniques

Introduction

Since the Children's Online Privacy Protection Act (COPPA) was signed into law in 1998, it has had a far reaching effect on the ways in which personal information is collected and used. However, no clear "best" method for operating within COPPA's stipulations has emerged. The research presented in this document describes an attempt to use the methodology of cooperative inquiry to investigate possible avenues for compliance with the parental consent rules of COPPA. Our intergenerational design team worked in small groups to brainstorm ideas for fulfilling the

parental consent requirements of COPPA, and proposed a number of technologies aimed at allowing parents to be aware of their children's possible submission of personally identifiable information online.

COPPA

The Children's Online Privacy Protection Act (COPPA) began with a complaint to the FCC regarding the data collection practices of a website, kidsCom.com, with the allegation that their disclosure practices were "inadequate and misleading". The FCC agreed, and pushed for a policy to help guarantee the protection of children's identities online. COPPA was enacted by congress in 1998, and came fully into effect on April 21, 2000.[4]

COPPA involves six mandates for website operators relating to the collection of personally identifiable information from children under the age of 13. These mandates are "(1) provide notice on their website of their information collection process, (2) obtain verifiable parental consent for the collection, use and/or disclosure of personal information from children, (3) provide a parent, upon request, with the ability to review the personal information collected from a child, (4) provide a parent, upon request, with the opportunity to prevent the use or maintenance of personal information that was collected on or after April 21, 2000, or the future collection of personal information from that child, (5) limit collection of personal information required for a child's participation in an online game, prize offer, or other activity to information that is reasonably necessary for the activity; and (6) establish and maintain reasonable procedures to protect the confidentiality, security, and

integrity of the personal information collected from children."[7]

These stipulations, in essence, require that a website operator with intentions to collect personally identifiable information from children must initiate and maintain a dialogue with the child's parents relating to the acquisition and uses of the information. Of the stipulations, the most essential, and to some the most problematic, is section 2, "verifiable parental consent", which would become the topic of our cooperative inquiry efforts.[4]

COPPA lists four methods acceptable to fulfill Verifiable Parental Consent (VPC), those being "(1) provide a consent for to be signed by the parent and returned to the operator by postal mail or facsimile, (2) require a parent to use a credit card in connection with the transaction, (3) have a parent call a toll-free telephone number; or (4) accept an e-mail accompanied by a valid digital signature. Of the available avenues, the e-mail solution has received the most attention, being preferred by both institutions and parents (cite). However, concerns have arisen over how easily these safeguards can be circumvented by children, as well as cost and logistical burdens they impose. Additionally, a lack of standardized implementation norms further complicates the implementation of these mandates, with many sites failing to comply, and some going as far to disallow use by children under the age of 13 to avoid failing to meet compliance standards.[7]

Taken collectively, these challenges present an opportunity for researchers and designers to develop tools that facilitate open communication between children, parents, and site operators. Additionally, the

development of standardized methodology for acquiring VPC could serve to increase the involvement of children in a variety of online endeavors, without compromising the privacy or personal information.[7.

Cooperative Inquiry and Intergenerational Co-design

The research outlined in subsequent sections was undertaken by KidsteamUB, an intergenerational co-design team at the University of Baltimore, and makes use of the methodology of cooperative inquiry. By involving those most involved in the problem under investigation, it is hoped that ideas and solutions to address the underlying difficulties of obtaining VPC can be addressed.[6]

 Kidsteam sessions generally involve the development of low fidelity prototypes using a variety of methods, and involves children, usually between the ages of 7-11, and adults working together as equal design partners in attempts to address specific design problems. While Kidsteam has utilized a number of different techniques in its lifespan, for the examination of methods for obtaining VPC, cooperative inquiry via the development of low tech (drawn) prototypes was utilized.

Cooperative inquiry is a form of participatory design specifically focused on facilitating inter-generational co-design. It is comprised of three major elements, firmly situated within the overall body of HCI research," (1) a multidisciplinary partnership with children; (2) field research that emphasizes understanding context, activities, and artifacts; (3) iterative low-tech and high-tech prototyping" [2]. As a technique, it seemed ideally suited to a preliminary investigation of the problems

associated with COPPA compliance. Additionally, as this design problem is specifically centered on children, the application of participatory design methods, specifically cooperative inquiry, is especially relevant within the context of participatory design research.

Methods

The session reported in this document took place on the afternoon of October 22nd, 2015 at the University of Baltimore Digital Whimsy Lab. The design team was composed of 5 children between the ages of 7 and 11, as well as four adult designers.

We began the session with a question, "How do you share things with your parents?", intended to encourage the design partners to think about the methods and actions through which they communicate with their parents. All design partners, children and adults, were seated in a circle on the floor, and answered the question sequentially. While a few of the design partners interpreted the question in a more literal way, i.e. gift giving or sharing food, the majority mentioned any of a number of web based communications technologies. E-mail, SMS texts, and social media options were all mentioned. Additionally, two design partners explained that they generally just talk to their parents, a low tech but highly effective method.

With the question answered, Kidsteam began the design time portion of the session. For this particular design problem, Cooperative Inquiry was selected as the operating methodology. The design partners were asked to design prototypes of a technology to allow the sharing of content created on-line with parents. The partners were divided into two groups comprising both

children and adults, and set to work with crayons, markers, and other drawing implements, to develop prototype designs.

After thirty minutes of design time, the design partners were asked to stop drawing, and came together to show and explain their designs. This section of the design session, called "Big Ideas" serves as a collective debriefing, were the designers attempt to distill the most interesting and relevant parts of the designs, and to note ideas that developed in more than one design. This section extends for approximately 10-15 minutes, and at the end of which the session is finished.

After the departure of the child design partners, the remaining adult members reconvened to further discuss the outcomes of the design sessions, and to posit what further directions the design session suggested. We concluded by writing a summary of the day's events, and collecting and storing all materials produced over the course of the design session for later analysis.

Results/Discussion

This design session revealed a number of interesting implications deserving of further exploration. It was heavily implied by the design partners, both through the question of the day and in design time, that they are more than willing to share information with their parents, but they are very concerned about interrupting and/or disturbing their parents in the process of disclosing this information. Additionally, the designers seemed focused on technologies that automated the sharing process, seeing the convenience of some form of automation to be a critical component of all of the prototypes.

The range of responses to the question of the day were particularly enlightening in relation to how the design partners conceptualize the term "share". A heavy focus on sharing technologies, like social media or other communications technologies, implies a comfort level and willingness to report through commonly available channels, and indeed the partners reported that they *often use these methods to communicate with their parents*. It could be useful to leverage this inclination in the development of technologies or methods for acquiring VPC, without the need for some other intermediary technology. The ability to send and receive information from a verified account could fulfill the requirements of COPPA without unduly inconveniencing all the parties involved.

The prototypes created during design time came in a variety of forms, but all shared certain characteristics that imply under-riding necessities. A descriptive example designed by one of the teams involves a robot that physically produces, then delivers, the child's content to the parent. This is interesting for a number of reasons, all bearing further exploration. Firstly, the robot, automatically retrieves, produces, and delivers the content from the child's point of generation to wherever the parents are located. This demonstrated a desire, found also in other designs, for *the entire process to be automated*, and for there to be little necessity on the part of the child to handle the reporting of information. While all the designers were aware of the need for this information to be shared, most wanted to avoid the inconvenience of themselves having to send the information to their parents. This could provide an interesting line of development for technologies to automatically report information to parents when it falls within certain criteria. By avoiding

the hurdle of inconvenience, such a technology could help with COPPA compliance by streamlining the process by which VPC is acquired.

Another concern expressed by the co-designers, separate but related to the automatic reporting, involved a *fear of "disturbing" parents by sharing with them*. All the co-designers expressed concern over the possibility of interrupting their parents at work or in a meeting. Some designs involved a sort of timer, built around the parent's schedule, which would delay delivering a message until a predetermined time period. In this way parents would not be bothered to review whatever information the children were trying to submit until they were free to actually review the information, an important feature.

Taken together these two features, automatic reporting and sensitivity to a parent's schedule, imply the need for a number of settings determined by parent's to facilitate and maximize the operation of any technology to facilitate the acquisition of VPC. If the co-designers intuitions prove true, and these ideas seem confirmed by general impressions of the shortcomings and difficulties related to COPPA compliance, then developing technologies that center on addressing these issues, automation and convenience, could help with a generalized move toward better COPPA compliance.

It is interesting to note that these two concerns resemble a portion of the COPPA regulation, that "the process for enabling a parent to review a child's information must itself involve some reasonable procedure of verification of the parent without unduly burdening the parent"[4]. The confluence of the child

designer's concerns and the federal policy is note worthy in that the pursuit of solutions to this mandate seems of universal importance to the involved parties.

Overall, the results of the session brought forth a number of features and design elements that would be helpful, or even essential, in the development of a system to facilitate compliance with the VPC requirement of the COPPA legislation. It is hoped that future research can develop technologies or protocols addressing the most salient of the designers concerns, namely automation of the VPC request via online tools, and design considerations that address the designers concerns over requests disturbing parents. With these elements identified, further iterations can develop a more robust compliance prototype.

Limitations
It is important to note certain limitations of the design session itself. Firstly, the number of children involved, five, is relatively low for cooperative inquiry, and all results should be understood within this limitation. Additionally, this session occurred early within the Kidsteam season and, since most of the design partners were new to the methods employed in this session, additional sessions would be invaluable in refining the ideas that developed over the course of this session.

Acknowledgements

References

1. Asaro, P. M. (2000). Transforming society by transforming technology: the science and politics of participatory design. *Accounting, Management and Information Technologies*, *10*(4), 257-290.

2. Druin, A. (1999, May). Cooperative inquiry: developing new technologies for children with children. In *Proceedings of the SIGCHI conference on Human Factors in Computing Systems* (pp. 592-599). ACM.

3. Guha, M. L., Druin, A., & Fails, J. A. (2013). Cooperative inquiry revisited: Reflections of the past and guidelines for the future of intergenerational co-design. *International Journal of Child-Computer Interaction*, *1*(1), 14-23.

4. Jamtgaard, L. (2000). Big Bird meets big brother: A look at the Children's Online Privacy Protection Act. *Santa Clara Computer & High Tech. LJ*, *16*, 385.

5. Lwin, M. O., Stanaland, A. J., & Miyazaki, A. D. (2008). Protecting children's privacy online: How parental mediation strategies affect website safeguard effectiveness. *Journal of Retailing*, *84*(2), 205-217.

6. Spinuzzi, C. (2005). The methodology of participatory design. *Technical Communication*, *52*(2), 163-174.

7. Warmund, J. (2000). Can coppa work-an analysis of the parental consent measures in the children's online privacy protection act. *Fordham Intell. Prop. Media & Ent. LJ*, *11*, 189.

8. Walsh, G., Foss, E., Yip, J., & Druin, A. (2013, April). FACIT PD: a framework for analysis and creation of intergenerational techniques for participatory design. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 2893-2902). ACM.