A Case Study on Facilitating a Long-Term Youth Advisory Board to Involve Youth in Adolescent Online Safety Research

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ABSTRACT

We worked with seven teens (aged 15-17) in a Youth Advisory Board program (YAB) for over a year to involve them in online safety research from reviewing online safety research protocols to co-designing online safety interventions that cater to their needs by teaching them essential UX design tools and techniques. Teens created storyboards, user personas, mind maps, and high-fidelity prototypes for their ideas regarding online safety and privacy features. Our case study outlines the overview, methodology we used, and lessons learned from the long journey with teens in the YAB program for online safety research. We provide heuristic guidelines for the research community that aim to build similar research programs for teens, including aligning long-term program goals with teens' needs, ensuring equal participation from diverse teens, building trust, maintaining maximum engagement, and communicating the outcomes and impact of their contributions.

CCS CONCEPTS

• **Human-centered computing → Empirical studies in HCI**.

KEYWORDS

Asynchronous Research Community, adolescent online safety, social media, privacy

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1 INTRODUCTION

Co-design with teens has been successfully applied in online safety research [1–5] to include their unique voices and perspectives to design teen-centric online safety solutions. Recently, researchers have extended co-design approaches to devise intergenerational programs for the effective involvement of teens in design and research [9, 10, 17]. For instance, Chatlani et al. [9] explored the idea of establishing Teenovate using the lens of a justice-centered design (JCD) approach that focuses on addressing the systemic injustices that result from deprioritizing the perspectives and needs of teens in online safety solutions. These programs aimed to engage teens as co-researchers and co-designers in the development and evaluation of online safety solutions that can assist them in managing risky situations. Yet, there have been challenges such as power imbalances between teens and researchers due to perceived knowledge gaps [14] and authority dynamics [10], leading to discomfort for teens in freely voicing their ideas or opinions. Another significant challenge involves teens often feeling that they lack the skills and expertise to act as equal partners [10]. Therefore, Chatlani et al. [9] proposed extending the Teenovate program by embedding the research apprenticeship approach for balancing between dependence and autonomy when co-designing. Other "action research" efforts have also called for fostering long-term partnerships with youth to ensure their beneficence and continued iteration of ideas [4, 7, 9]. Building upon the findings from prior work, we engaged seven teens (aged 15-17) for over a year, in a Youth Advisory Board (YAB) program, to 1) teach them UX design skills and industry-standard tools and provide them with career development advice, 2) elicit direct feedback on lab research protocols and participate in research studies, and 3) engage them in co-design on topics led by their interests. We also discussed and explored methodological approaches i.e Justice-Centered Design (JCD) [9] and Asynchronous Research Community (ARC) [13], to understand their perspectives on the efficacy of these methods to improve adolescents' online safety research. Through YAB, teens helped shape our research designs for effective outcomes and created teen-centric online safety interventions.

In this case study, we present the details of the YAB activities, along with lessons learned and recommendations based on teens' feedback for future research employing similar long-term research partnerships with youth.

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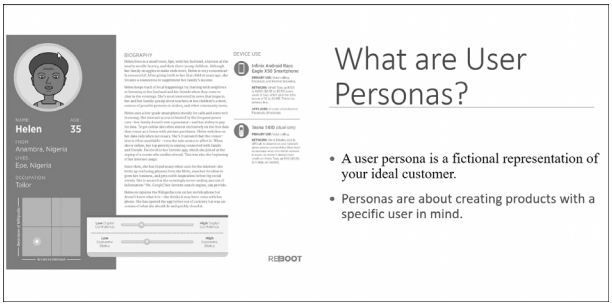

Figure 1: UX training

2 FACILITATING A YOUTH ADVISORY BOARD (YAB) FOR ONLINE SAFETY RESEARCH

In this section, we provide an overview of the YAB goals, along with summarizing the different research and training activities for adolescent online safety.

2.1 Program Overview

The YAB program engaged teens for over a year with the main purpose of involving them as advisors in teens' online safety research. We conducted a total of 18 sessions via Zoom with seven teens from the United States to gather insights regarding various research topics and design interventions on teens' online safety. After an orientation meeting, monthly meetings were held with the agenda to solicit teens' feedback on research protocols and allow them to participate in research studies. A key aspect of the program was for teens to lead their stand-alone co-design projects for online safety. Therefore, we held bi-monthly workshop meetings where we taught teens about the various UX design concepts (e.g. storyboarding, user personas, etc.) and innovative methodologies (e.g., JCD), while also introducing them to UX as a potential career path. Finally, we organized a presentation day where teens showcased their design projects, guided by our workshops. Each meeting was 2-3 hours long with a combination of hands-on design activities and take-home assignments. Table 1 shows the schedule and a summary of the activities for synchronous meetings. YAB members were also involved in asynchronous communication using Discord, for team coordination and research-oriented discussions, based on the methodology of ARC [13], as described in fig. 2. Upon program completion, we conducted individual exit interviews to get detailed feedback for the YAB and thank the members for their participation.

All the YAB members were from the United States between the ages of 15-17 years old. We had a diverse group of teens, including members who identified themselves as White/Caucasian (n = 3), Asian (n = 3), and Black-African American (n = 1). We had a balanced gender representation with 4 male and 3 female members. We recruited teens through an outreach campaign targeted toward youth-serving organizations and high schools. Potential members completed a pre-screening survey for eligibility, after which they were directed to complete informed consent/assent forms. Teens were invited to apply via an application consisting of some open-ended essays on their basic social media use, their vision of online safety, and their motivation to participate in the YAB. Members were selected after an interview with the researchers. All of them were enrolled in high school when they signed up for YAB. Teens were given certificates of participation and gift cards of up to $450 to compensate them for their time and contributions. Below, we summarize the details of the various activities for the YAB.

2.2 User Experience (UX) Skill Building and Career Development

We started the YAB journey with an introductory session, which included an icebreaker game of "Code Names", and an introduction to the research topic, while setting the guidelines and expectations for future sessions. Teens were briefed on the YAB goals, including giving feedback on research design and leading their own online safety projects. To ensure that teens were well-equipped to participate in the co-design and research activities [1], we held several workshops introducing the teens to key UX concepts and methodologies, as summarized below.

2.2.1 Storyboarding, User Personas, Mind Mapping and Prototyping. First, we familiarized teens with storyboarding by sending them useful online resources, and examples, as well as a video tutorial we produced that demonstrated the process of creating storyboards on Canva [8]. We then explained the concepts of user personas (fig. 1) and mind mapping supplemented with examples for teens to further iterate on the ideas for their projects.

For teens to create interactive prototypes of their projects, we conducted a workshop to teach them about Figma. Figma is a web-based prototyping tool that allows for creating interactable mock-ups for mobile apps, websites, and software [11]. We explained the basic tools and features offered by Figma to collaborate and create user-friendly designs. For practice, we had teens engage in a design activity in which we asked them to create a simple application with three screens: 1) a login page, 2) a dashboard, and 3) a profile page. We also asked them to add interactivity by connecting the screens using the built-in prototyping tool in Figma.

2.2.2 Restrospection on YAB and Justice-Centered Design. We introduced teens to the idea of embedding the JCD approach in adolescent online safety research focusing on making safety interventions more justice-oriented by prioritizing teens' autonomy over restrictive parental oversight. We explained the concept of JCD design in simpler terms utilizing various examples to ensure they grasped the concept. Then we asked teens about any part of online interaction they found unjust and ways to make it fairer for them. We also carried out a re-design activity (fig. 3), in which we showed them a storyboard portraying a teen facing a risky situation online and their parents managing the situation. We discussed teens' perceptions about how just or unjust the situation felt and asked them if they would want to change it to improve fairness. Next, we tied the JCD concept to the efforts of YAB to have teens help us formulate just approaches to online safety research by eliciting responses on which parts aligned with the JCD principles and which did not. The teens were encouraged to suggest justice-centered alterations to YAB while envisioning new activities built on the ideas of JCD to include in our YAB program.

2.2.3 UX career sessions. To help teens grasp the broader significance of their work during YAB workshops, we held two sessions

Table 1: YAB synchronous meetings schedule

Session Date	Summary of Activities
Workshops and Career Sessions (n = 5)	
Aug 2022	Finalizing UX project ideas and Figma training for high-fidelity prototyping
Nov 2022	Teaching how to create storyboards, user persons, and mindmaps
March 2023	Figma refresher and finishing up UX projects
June 2023	Introduction to UX Career and guidance on how to apply for internships
Jan 2023	Introduction to Justice-Centered Design (JCD) for Adolescent Online Safety
June 2023	Guest lecture from an industry professional about their career in UX and a Q/A session to address the teens' questions
Feedback on Research Protocols (n = 3)	
July, Aug, Oct 2022	Introduction to study designs and reading materials for review. Follow-up open discussion on the study they reviewed.
Participation in Research Studies (n = 6)	
June 2022, March 2023	Engaged teens in groups of 2-3 per session to participate in 2 research studies as participants and provide feedback for improvements
March 2023	Follow up on the early study findings and steps on how their feedback will be incorporated
Synchronous Sessions for On-going ARC Study (n = 3)	
Oct 2022	Introduction to ARC and Suggestions on Discord Activities
Nov 2022	Planning online safety topics and activities for the ARC environment
March 2023	Elaborating on the responses to the ARC Study activities

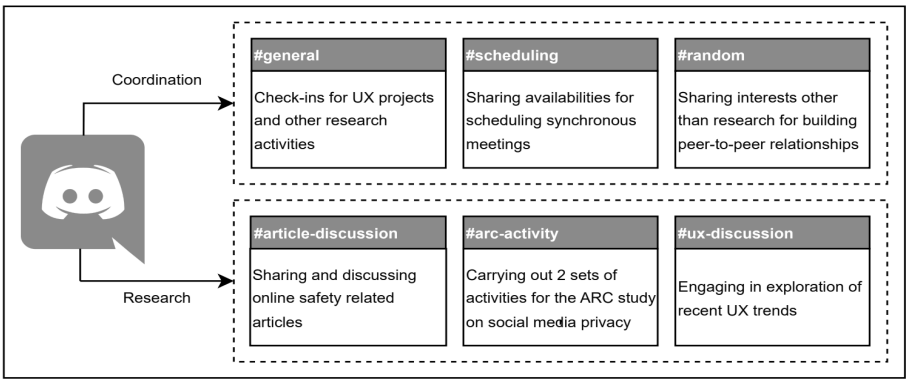

Figure 2: ARC spaces on Discord to a) coordinate for scheduling meetings and get updates on tasks, b) discuss research-related topics

focused solely on UX careers, showing how basic UX concepts are being employed in real-world industry projects. In the first session, we started by giving an overview of the UX research and design process and its applications in both tech and non-tech fields. Furthermore, we gave information on how to apply for internships in UX that can bolster their profiles if they are interested in pursuing UX as a career. For this part, the researchers shared their UX internship journey offering guidance to the teens on various aspects, including how to apply for internships, secure return offers, and the lessons they learned from their experience. In the second session, we invited a UX professional working as a lead UX designer at Bungie Inc. to share how they began their career and talk about the various UX projects they were involved in while working for different companies. They also offered valuable advice and guidance for those interested in the field of UX. The session concluded with an interactive question and answer session to address any queries from the teens.

2.3 Co-Design Online Safety Projects

Each training activity was followed by hands-on design activities spread out over several sessions, in which teens applied the UX concepts to their own individual UX projects. First, to bring teens into the designing mode, we had a fun brain writing design activity on Figjam [11], where the teens were given a prompt about a risky scenario online and they built upon each other's ideas of features that they would want to navigate such situations. This was followed by a take-home design task to create low-fidelity wireframes based on the ideas they devised in the brain writing activity.

After the training, we asked teens to create storyboards for their online safety projects and share them in the Discord channel for

other teens to guess what problem they were aiming to solve. For the activity, we set up a Canva board for the teens with a storyboard template and instructions to guide them. Similarly, we engaged teens in creating user personas and mindmaps for their projects by setting up a board on LucidSpark [12] with templates (fig. 5 & fig. 6). We got into break-out rooms and helped teens create at least one user persona and a mind map to help elaborate on their online safety ideas. Later on, the teens presented their designs to the larger group for further discussion and feedback. Finally, guided by the training activities on Figma, teens worked on creating high-fidelity prototypes for their online safety projects. The teens presented their design projects (fig. 7) on the last day of YAB.

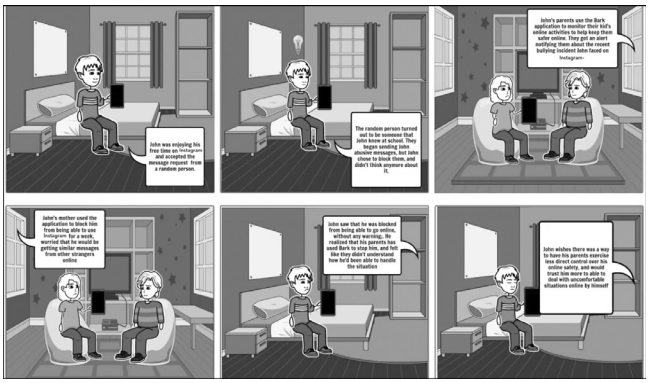

Figure 3: a) Scenario-based design activity for assessing the fairness of safety interventions

2.4 Feedback on Study Protocols and Participation in Research Studies

As a significant part of YAB, teens acted as co-researchers to review 3 ongoing research projects, giving their unique perspectives for improving our approach to adolescents' online safety research. Before the review sessions, the lead researchers gave a quick introduction to their study designs along with providing teens with the required study material including 1) an Institutional Review Board (IRB) document containing an overview of the study activities, 2) recruitment protocol and consent forms, and 3) the design artifacts to be used during the study. We asked teens to provide written feedback for the study protocols, using a template. The template included questions about the research such as summarizing the purpose of the research, teen engagement, and any potential concerns about teens' safety and privacy for participation. During the review sessions, we went through their feedback together and had an open discussion about the study and any suggestions for improvement. Furthermore, teens also participated in two ongoing research studies in focus groups of 2-3 teens and carried out design activities on FigJam for various online safety goals (e.g., how to design effective online safety nudges) and provided feedback for improving these studies.

2.5 Asynchronous Research Community (ARC) Methodology and Teen's Social Media Privacy

We explored the Asynchronous Research Community (ARC) methodology alongside synchronous Zoom meetings to study teens' social media privacy. The ARC methods [13] have been applied in research involving teen participants to enhance flexibility and increase engagement by allowing participation in research activities at a time of their discretion (e.g., through private online communities) [6, 15]. Yet, ARC is under-explored in the context of teens' online safety; hence, we employed ARC to actively engage teens in the discussion of online safety topics that interest them.

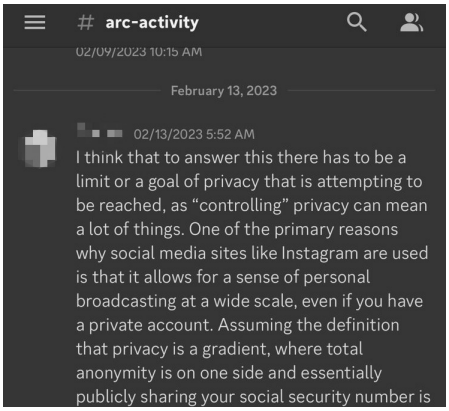

Figure 4: ARC activities on Discord

In the first ARC session, we familiarized teens with the concept of ARC and the topics teens wanted to investigate in an ARC setting (i.e. a Discord channel specific to ARC). This was followed by an activity on FigJam whiteboard where researchers worked with teens to develop ARC activities related to social media privacy. Based on teens' ideas, we conducted 2 sets of activities in the ARC environment covering two main aspects of social media platforms: 1) privacy features, and 2) algorithms embedded in social media (e.g., news feed, autoplay). The activities focused on defining the problem, followed by iterating on designing safety features to circumvent such situations. Each activity was further divided into prompts with detailed instructions for the teens to complete the tasks. The prompts were posted weekly or bi-weekly in the evening time, keeping in view the teens' school routine, with a deadline before which they had to submit their written responses or assigned design tasks (fig. 4). The researchers also sent reminders and encouraged them to ask questions if they had any confusion.

2.6 Wrapping Up the YAB Journey

Our YAB expedition concluded with teens showcasing their final UX projects, followed by individual parting interviews to elicit detailed feedback on YAB. Below, we summarize the final sessions.

2.6.1 UX projects presentation. On the final day of YAB, teens showcased their projects depicting online safety solutions for risks that were personally relevant to them (fig. 7). The presentations included: 1) the problem they were trying to solve, 2) their proposed

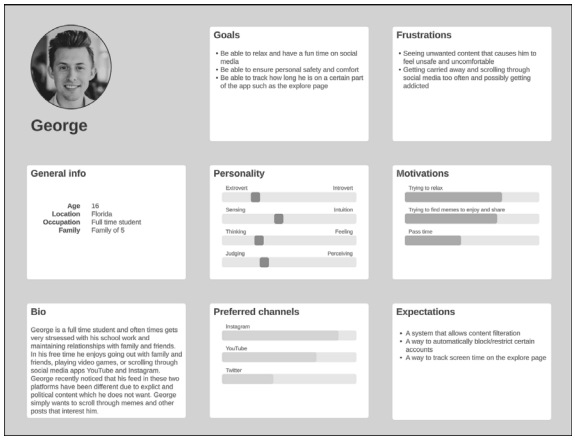

Figure 5: Teens' user persona for online safety needs

solution, 3) the storyboards, user personas, and mind maps from the workshop activities, and 4) their prototype walkthrough. Each teen was given 15 minutes to present their project with 5 minutes for a question/answer session. Teens designed prototypes for enhancing online security and privacy by embedding new privacy features in existing social media platforms or creating new safe spaces curated according to their needs. We provided teens with constructive feedback and commended the incredible work they had produced. Finally, we gave a recap of YAB and discussed the growth we saw in the YAB members throughout their involvement in the program, while also hearing their thoughts about their learning and personal development. The members shared their favorite moments, discussed activities that they wished were included in the program, and offered advice for future YAB members.

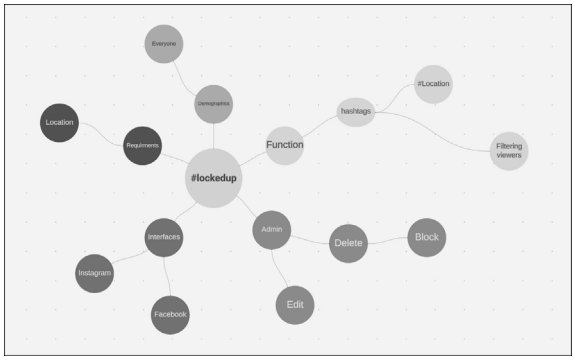

Figure 6: a) Teens' mindmaps for online safety features

2.6.2 Parting Interviews Sharing Feedback on YAB. We held individual exit interviews with all the YAB members to learn more detailed, and open feedback on YAB. For these interviews, we developed a semi-structured protocol containing questions related to their overall experience with YAB and the various activities we carried out during the YAB. Each interview was about an hour long and focused on understanding the parts of YAB they enjoyed and areas for improvement, such as their thoughts on study reviews,

Figure 7: Teens' presenting their final UX projects

co-design activities, and asynchronous research methodology for carrying out certain research activities.

3 LESSONS LEARNED

In this section, we highlight the lessons learned during YAB based on researchers' experiences and teens' feedback. We conceptualize actionable recommendations for researchers using similar methods in the future.

3.1 Balancing Online Safety Research Goals with Teen Beneficence

One of the main challenges we faced during YAB was to balance long-term benefits to teens (e.g., UX training, technology, career discussions) with the online safety research goals. For instance, the larger goal of UX training was to equip teens to effectively contribute to online safety solutions along with learning industry-standard skills. Yet, at times, teens' interests or ideas did not align with online safety, and they preferred to implement the UX training in different ways (e.g., creating prototypes for other general technology, rather than online safety). Additionally, during the feedback sessions, some teens mentioned that they wanted to spend more time on UX training and general career advisement for their professional growth. Moreover, with the sessions spread out over a long period of time, teens often lost track of the end goal of their projects and participation.

During our sessions, we overcame this challenge to some extent by providing recaps that provided a summary of where we left off and plans for the session. Therefore, we recommend using clear and explicit reminders for the larger online safety goals or embedding the research goals within the UX training by scoping the activities to be centered around online safety. At the same time, it is important to understand teens' own long-term goals from their participation in the research program and ensure that feel they are benefitting from the research. For instance, teens often had personal goals such as learning technologies, securing internships, or building their resumes for college applications: *"I am pursuing a career in research...I wanted to develop some experience or connections with that kind of tech research before going off to college"* - T4 (17, M). Therefore, in future work, researchers should learn about teens'

goals from the research early on and cater the program according to common preferences (e.g., niche group sessions to get advice).

3.2 Leveraging Asynchronous Methods & Individualized Support to Encourage Equal Participation

During the YAB sessions, we sometimes struggled with ensuring equal participation during the activities due to the varying personalities, skills, and interests of the teens. Overall, we had some self-selection bias of students who were highly motivated and college-minded who were outspoken while others felt intimidated and needed more time to participate. During feedback sessions, some teens shared that they didn't face any issues in design tasks due to greater technological proficiency or prior knowledge of UX, whereas others faced more technical challenges and required individual help and assistance.

To overcome these challenges, we frequently utilized break-out rooms and carefully divided teens into smaller groups according to their individual characteristics, making it easier for the quieter teens to share their input in spaces where they could receive more personalized attention. After discussing the ideas or co-designing in small groups, we convened to share them with the entire group and encouraged peer-to-peer feedback to help encourage participation. However, some teens continued to struggle with forming thoughtful responses on the spot. In the feedback sessions, teens appreciated and preferred the ARC activities as they offered flexibility and ample time to develop quality responses and contribute more confidently: *"it was easier for all of us to do because of the different schedules. And I thought it was a bit more interactive because now we have some things that we could do, like when we have free time"* - T3 (15, Male). Therefore, we suggest researchers employ a mix of synchronous and asynchronous activities to enable more effective participation from the teens. Furthermore, as teens worked on their projects and design tasks, we held office hours to provide timely support for teens seeking additional assistance. YAB Teens found this helpful as it provided them with more hands-on guidance from the researchers. We recommend that researchers extend such individualized support to teens who need it. Overall, in order to make teens equal partners, we have to train them according to their needs and provide them with support to take an autonomous leadership role in research.

3.3 Fostering Trust & Relationship Building with Researchers and Peers

Engaging in remote settings made it difficult for teens to establish rapport and trusted connections with researchers and other teens as online environments lack non-verbal cues. For instance, teens shared that there was a lack of peer-to-peer interactions which hindered their participation and the development of long-term connections. To develop connections, we suggested teens keep their cameras on all the time, yet it was not always possible due to technical issues or their personal preferences. In addition, we faced this issue in the ARC environment (i.e. Discord) as teens took part in the activities at their own discretion and their timings varied inconsistently. This led to irregular and fragmented interactions with other teens and researchers, inhibiting good peer-to-peer relationships to work together effectively.

To mitigate this challenge, researchers frequently encouraged teens to interact with each other and the researchers by giving feedback and sharing their viewpoints, but participation issues still persisted. Following the recommendation suggested by Bhattacharya et al. [6], we created a channel on Discord dedicated to socializing, but teens were typically not available for casual conversations. Meanwhile, during the feedback sessions, many teens mentioned enjoying doing group design activities where they could build off of each other's ideas and work together: *"I really liked the activity we did in the beginning with the sticky notes. If we did more of that, yeah, it will be fun"* - T5 (17, Female). They believed that having more group activities would facilitate direct communication among the teens and foster better peer relationships. Teens also mentioned that having in-person meetings would significantly enhance collaboration and rapport-building among teens. Therefore, we suggest researchers thoughtfully consider the number of teens to recruit based on the planned activities. Researchers should also devise activities where teens can work in groups, both online and in-person settings, to develop team-building skills and deeper bonds making them feel more comfortable in contributing.

3.4 Engaging Teens in Long-Term Research Activities & Goals

Over time, we struggled with teens losing interest and momentum, affecting their engagement and timely completion of work. Firstly, teens became busier with their routines over the course of the program, which made scheduling sessions difficult and decreased attendance, leaving teens confused and disconnected during the subsequent sessions. At times, researchers had to re-schedule meetings due to low attendance. Some teens shared that these sudden changes were frustrating as they made the gap between sessions wider and slowed progress on UX projects. Overall, figuring out a suitable time and date when every teen was available remained a daunting issue throughout. From the teens' feedback, we learned that researchers should decide on specific days and times of the month for the meetings and communicate the schedule in advance at the start of the program. This would help teens make informed decisions while keeping their respective schedules in mind and prevent such issues from occurring in the future. Also, during study reviews, teens found reading long IRB documents burdensome which barred them from deeply engaging with the research design, resulting in brief feedback. Researchers should make research protocols more accessible by providing summaries and visual representations to avoid going through extensive reading material. Moreover, there were logistical issues due to the director of our YAB program (the last author) transitioning to a new university. While it was beneficial that we were able to keep the same YAB since it was remote, it was a challenge to keep them engaged, especially with personnel changes and transitioning IRB approvals. The team also had to work with the IRB to incorporate additional flexible activities (e.g., research participation) for the long-term engagement of teens. Therefore, we emphasize the importance of maintaining continuity within the research team.

Additionally, despite being appreciative of ARC's flexible nature, teens also often tended to either forget about doing the activities or miss submitting their completed tasks due to other commitments.

To navigate this issue, researchers gave gentle reminders once or twice before the deadline, but according to the teens, they were not enough. They suggested that reminders should have been more frequent: *"I feel like just putting a lot more reminders throughout through email and Discord... I don't really check it and often miss it but my email, I do"* - T5 (17, Female). As such, it is important to assist teens in managing their time efficiently and smoothly integrating the program objectives into their schedules. To this end, researchers may consider planning out a schedule of both activities and work deadlines many months in advance, so that teens are able to incorporate them into their schedules going forward.

3.5 Communicating Online Safety Impact with Teens

Finally, in the feedback sessions, teens mentioned that they were unaware of the impact of their work as part of the YAB which made them question the value of their contributions. They wanted to know how their work is making a difference and benefiting adolescents' online safety research. For instance, teens wondered how the feedback given on the research studies was incorporated, and whether the research protocols were modified accordingly before the study's launch. Teens also wanted to interact with the design solutions produced as a result of the research studies. Similarly, they wanted to see their designs be actually implemented and integrated into real-world applications.

Teens suggested keeping them in the loop after the YAB through emails stating the updates and outcomes of the research studies: *"I think having some sort of like alumni mailing list or something, just people that have been in it"* - T4 (17, Male). They also appreciated the idea of initiating a YAB newsletter to get follow-ups from researchers to understand how their feedback influenced the research study design. Prior work from Walker et al [16] also pressed on this aspect, deeming it critical to report back the research outcomes to the relevant community to reassure them that their participation was worthwhile. In addition, teens mentioned that it would be a good idea to invite developers or individuals who work within social media platforms and commercial online safety to see their projects and incorporate them if they find them feasible. Therefore, future work can be done to give teens an opportunity to share ideas with such influential individuals which can highlight the significance of their work and motivate them to do better.

4 HEURISTIC GUIDELINES FOR ESTABLISHING LONG-TERM PROGRAMS WITH YOUTH AS RESEARCH PARTNERS

Based on our findings, we provide the following guidelines for establishing effective long-term programs with youth as research partners:

- **Provide Flexible Research Environments to Support Diverse Needs:** Accommodate teens with diverse needs and skill sets by providing break-out rooms, individual attention, and the option to get additional support outside of the workshop (e.g., office hours). Balance synchronous and asynchronous modes participating in research to promote flexibility and encourage individual contribution for quieter teens.
- **Continued Engagement to Remind Research Goals and Activities:** Clearly communicate the time commitment and long-term deadlines for research involvement early, while helping teens manage their time consistently and engaging them (e.g., frequent reminders for activities) throughout. Ground the training activities in the broader research goals, with frequent reminders of the larger goals to keep teens on track. Facilitate research activities by providing carefully curated reading material for better manageability.
- **Support Long-Term Benefits and Communicate Impact**: Assess teens' long-term goals early on and provide ways to benefit them based on common preferences (e.g., sessions on college applications, and additional UX support). Communicate clearly with teens about the outcomes and impact resulting from the research in accessible ways (e.g., newsletters) to help them understand how their efforts contributed to a greater cause.
- **Invest Time and Effort to Build Trust and Rapport** Invest time and effort to share common ground and interests. Office hours, co-design, and in-person meetings (if possible) can help better rapport and team building, with more opportunities to interact about personal interests, to build trusting relationships. Engage industry partners to have them hear the teens' ideas reassuring them that their efforts are being recognized and have the potential of making an impact.
- **Encourage Peer Interaction through Group Activities:** Provide opportunities for group activities and interactions to help teens develop peer-to-peer connections, build networks, and increase motivation for participation. Encourage participants to rely on each other and researchers, for help throughout the program.

5 CONCLUSION

In this novel approach, we not only equipped teens with effective UX skills to confidently contribute as co-designers, but we also involved them in shaping our research study protocols for improving our strategies for online safety research involving teens. The best practices we provide based on our experience and invaluable feedback from teens can be a stepping stone for future research considering this method. Moving forward, we aim to run multiple iterations of the program, to develop a broader platform where teens can actively contribute to online safety research by devising and evaluating best practices and safety interventions that cater to their unique developmental needs.

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