# Edinburgh Research Explorer

# Ethical Considerations of Distributed Participatory Design with Children

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AURORA CONSTANTIN, University of Edinburgh, UK

VALENTINA ANDRIES, University of Edinburgh, UK

JESSICA KORTE, University of Queensland, Australia

CRISTINA ADRIANA ALEXANDRU, University of Edinburgh, UK

JUDITH GOOD, University of Amsterdam, Netherlands

GAVIN SIM, University of Central Lancashire, UK

JANET C. READ, University of Central Lancashire, UK

JERRY ALAN FAILS, Boise State University, USA

EVA ERIKSSON, Aarhus University, Denmark

In this workshop, we invite researchers, practitioners and designers to reflect on ethical issues arising from Distributed Participatory Design (DPD) research with children. As participatory design research practices require rethinking and innovative adaptation in light of the COVID-19 pandemic, distributed, asynchronous and online (D)PD approaches may provide solutions to participation barriers. However, in light of this adaptation, additional ethical complexities may arise. Ongoing collaborative discussion is required to identify and address the different types of ethical issues which may arise when planning and conducting DPD projects with children. This workshop builds on previous workshops held at IDC 2021 and 2020, which provided insights into developing a protocol for a world-wide DPD project with children.

## 1 BACKGROUND

Due to the COVID-19 pandemic, we have seen an increase in distributed participatory design (DPD) with children. DPD primarily relies on digital tools and online connections, and may be synchronous or asynchronous. It presents both opportunities, including increased inclusion, and challenges [2]. One significant challenge is: DPD requires updated discussion and reflection on new ethical dilemmas. Distributing participation across geographical boundaries, or across different ages or abilities of participants, requires careful consideration of ethical issues around recruitment, relationships building and engagement, privacy, power dynamics, and situated and cultural practices [2].

Over the last few years, Human-Computer Interaction (HCI) researchers and designers have become increasingly aware of the need to consider ethics in their work, in keeping with evolving technology and its impact on individuals, and the increasingly exploratory and contextual nature of HCI research topics [1, 10]. This has become even more important with regard to the Child-Computer Interaction (CCI) community, given the increasingly ubiquitous nature of technology use in children's daily lives, which may in turn lead to new ethical concerns [6]. This community

has a responsibility to broaden and strengthen the discussion about what constitutes ethical research with children, considering its many challenges, ideally in a contextualised manner. Formalised ethics processes may also require shifting and increased transparency [11] due to complexities arising from recruiting participants across the globe, or related to the administration of data (sharing or storage) to achieve ethical distributed participation.

This workshop builds on previous workshops held at IDC 2020 [3] and 2021 [9], which provided insights into a protocol for a world-wide DPD project with children, which is still under development. This protocol is meant to lead to the largest DPD Project with children. As part of this protocol, it is essential to consider ethical aspects that would characterise the entire DPD project.

Therefore, in this workshop we aim to identify ethical complexities specifically for DPD and prioritise the various types of ethical issues that may arise in light of running DPD projects with children related to its multiple facets/dimensions. Participants in the workshop are invited to also reflect on solutions to the ethical dilemmas that are identified, in order to ensure ethical, safe and inclusive research practices.

The following topics may inspire position papers and discussions: ethical issues related to cultural sensitivity; legal and ethical requirements around the globe; situational ethics in the DPD process; ethical issues related to the roles of participants in DPD; ethics related to working with participants of varying abilities, due to age or disabilities; ethics of obtaining informed consent and monitoring assent and engagement; ethical engagement with children; ethical, fair and equitable participation for children with different access (see: Antle [1]) ethical issues related to power dynamics; ethical issues related to privacy, especially if DPD takes place in children's homes; ethical issues related to children's data, especially considering the ubiquity of recording technology in digital platforms; ethical issues concerning the involvement and/or presence of parents, siblings and other family members, who may be present when DPD occurs in children's homes.

## 2 WORKSHOP AIMS

This workshop follows from our IDC 2020 and 2021 workshops [3, 9] which were focused on planning and co-designing the protocol for the world's largest Distributed Participatory Design (DPD) project with children. This workshop has 2 aims: (1) Identify ethical challenges that are specific to the DPD approaches in large projects; and (2) Develop solutions to these ethical challenges. The challenges and solutions will be considered in light of: research questions, design process (including participant recruitment), administration (including data management), maintaining and ending relationships with participants, and collaboration among researchers.

## 3 ORGANIZERS

Most of the organizers have extensive experience running workshops and special interest groups [3–5, 8, 9].

**Aurora Constantin** is a University Teacher and researcher at the University of Edinburgh School of Informatics, UK. Her research focuses on designing technology for individuals with Autism Spectrum Disorder (ASD), (D)PD, User-Centred Design (UCD), and Action Research (AR) with various stakeholders. She led the design of a proof of concept for an app to support writing social stories for children with autism which was developed into a free app, SOFA.

**Valentina Andries** has recently completed a PhD at the University of Edinburgh, UK, focused on the ethical design and evaluation of digital technologies with and for young children in a hospital. She is a University Tutor and a postdoctoral researcher at the University of Edinburgh. Her current research revolves around designing communication technology for refugee families to aid their transition into the Scottish culture.

**Jessica Korte** is an Advance Queensland TAS DCRC Fellow at The University of Queensland's Human-Centred Computing Group in Queensland, Australia. She is passionate about PD's potential to empower children. She developed a PD approach for designing with young Deaf children [7].

**Cristina Adriana Alexandru** is a Lecturer at the University of Edinburgh School of Informatics, UK. She specialises in UCD, development, and usability evaluation of healthcare systems and tools to cater for the needs of different healthcare practitioners. She has special interests in PD and consideration of the viewpoints of very different user groups. She is also interested in automating usability evaluation of user interfaces in healthcare.

**Judith Good** is Professor of Human Factors in the Internet of Things, University of Amsterdam, Netherlands. Her research interests focus on the co-design of new technologies for children, with and without disabilities. She is also interested in developing new participatory methodologies for typically marginalised populations to have greater involvement in both the design and evaluation of new technologies.

**Gavin Sim** is a Reader in Human Computer Interaction. He has worked at UCLan since 2002. His research interests are in the area of HCI and educational technology, in particular usability / user experience evaluation methods. He is an active researcher within the ChiCI group, where his focus has been on evaluating user experience and usability within games and educational technology. He has written method papers for IDC, and has worked with the BBC.

**Janet C. Read** is a Professor in Child Computer Interaction and is the Director of the Child Computer Interaction (ChiCI) research group at UCLan. Her recent research includes work on methods to improve the ethical participation of children in design sessions and on cross cultural design. As a primary author of the textbook, 'Evaluating Interactive Products with Children', Prof.Read has worked with industriesin the design and evaluation of products for children. The Fun Toolkit introduced by Read is known to be used by industry.

**Jerry Alan Fails** is an Associate Professor in the Computer Science Department at Boise State University in Idaho, USA. He has designed technologies with and for children using PD methods for 18 years. His primary area of research is HCI particularly CCI, with current projects to support children as they search for materials online and that support and maintain their security and privacy online.

**Eva Eriksson** is an Associate Professor Aarhus University, Denmark. She was one of the founders of Gothenburg working group for Interaction Design And Children (IDAC) in Sweden, and is now part of the Center for computational thinking and design in Denmark. Her research focus is participatory design of technology.

## 4  PRE-WORKSHOP PLANS

Multiple recruitment approaches will be used to attract participants who have experience or interest in the ethics of (D)PD with children. The organizers will use professional networks to contact researchers who may be interested in participating in this workshop (including the participants who attended their previous IDC workshops). As we have experience with PD and running workshops, we are confident we will be able to attract potential participants via word-of-mouth. Several organizers have access to research and professional email lists (including University of Edinburgh's CISA HCI group, PDworld and NordiCHI, CHI, CHI-Kids, Center for Participatory IT (PIT)) which will be used to advertise the workshop and recruit participants. Third, we will also use social media channels (e.g. Twitter, Academic Facebook groups) to announce the workshop. Finally, we will create a website that will be used to attract researchers' and PD participants' attention to our workshop and include the call for participation, submission instructions, and news: https://sites.google.com/view/ethicsworkshopidc2022/.

## 5 WORKSHOP STRUCTURE

The duration of the workshop is half day, and will be presented in a hybrid and drop-in, drop-out format to allow flexibility of attendees from all around the world who would need to join online. The overarching goal of the workshop is to undertake hands-on activities focused on identifying and addressing the ethical issues relevant to a globally distributed PD project. The proposed schedule for the workshop is:

**45 mins** Session A: Initial introductions and DPD protocol

**15 mins** Break and introductions to new attendees

**45 mins** Session B: Discussion of ethics considerations specific to a DPD project

**30 mins** Networking break

**45 mins** Session C: Discussion on solutions for DPD ethics challenges

**15 mins** Break and introductions to new attendees

**45 mins** Session D: Summary of the DPD ethics challenges and solutions

The specific times would need to be decided based on when is appropriate for the conference, ideally with consideration for the time zones of participants who will be attending remotely.

**Resources Needed:** This workshop will run in a hybrid format. The drop-in, drop-out format has been chosen to accommodate attendees who need to attend online and may not be able to attend the full four hours, such as those in substantially different time zones.

## 6 POST-WORKSHOP PLANS

Based on the workshop outcomes, we would like to develop a checklist of important aspects to consider for any DPD project. Workshop attendees will be invited to expand their position papers for inclusion in a special issue of a highly-ranked journal, e.g. the International Journal of Child-Computer Interaction (IJCCI).

## 7 CALL FOR PARTICIPATION

This 4 hour, drop-in/drop-out hybrid workshop will bring together researchers with experience in ethics and/or (Distributed) Participatory Design with children, as well as participants (including parents and carers) who will have the chance to discuss ethical challenges in a Distributed Participatory Design (DPD) project. If you are interested in ethics and/or (D)PD, we invite you to join our workshop.

We accept two types of participants: a) active participants (who have experience in ethics and/or (D)PD with children); b) observers (who are interested in learning more about ethics and/or (D)PD with children). Active participants are invited to submit 2 page position papers in the ACM Standard Template. Please visit our website for more details.

Position papers will be evaluated based on their relevance to the workshop theme and topics, quality of presentation and potential to encourage debate. Authors of accepted position papers will be invited to extend their position papers to submit to a special issue of a journal, e.g. the International Journal of Child-Computer Interaction (IJCCI). Observers will be invited based on synergy with participants attending the workshop. At least one author of each accepted position paper must attend the workshop. All participants and observers must register for both the workshop and the main conference.

## REFERENCES

[1] Alissa N. Antle. 2017. The ethics of doing research with vulnerable populations. *Interactions* 24, 6 (2017), 74–77. https://doi.org/10.1145/3137107

[2] Aurora Constantin, Cristina Alexandru, Jessica Korte, Cara Wilson, Jerry Alan Fails, Gavin Sim, Janet C Read, and Eva Eriksson. 2021. Distributing participation in design: Addressing challenges of a global pandemic. *International Journal of Child-Computer Interaction* 28 (2021), 100255.

[3] Aurora Constantin, Jessica Korte, Cara Wilson, Cristina Adriana Alexandru, Judith Good, Gavin Sim, Janet Read, Jerry Alan Fails, and Eva Eriksson. 2020. Planning the world's most inclusive PD project. In *Proceedings of the 2020 ACM Interaction Design and Children Conference: Extended Abstracts*. 118–125.

[4] Aurora Constantin, Jessica L. Korte, Jerry Alan Fails, Cristina Adriana Alexandru, Mihaela Dragomir, and Helen Pain. 2019. Expecting the unexpected in participatory design. In *CHI EA 2019 - Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems*. ACM, 1–4. https://doi.org/10.1145/3290607.3311758

[5] Aurora Constantin, Jessica L. Korte, Jerry Alan Fails, Judith Good, Cristina Adriana Alexandru, Mihaela Dragomir, Helen Pain, Juan Pablo Hourcade, Eva Eriksson, Annalu Waller, and Franca Garzotto. 2019. Pushing the Boundaries of Participatory Design with Children with Special Needs. In *Proceedings of the 18th ACM International Conference on Interaction Design and Children*. Boise, Idaho, USA, 697–705. https://doi.org/10.1145/3311927.3325165

[6] Christopher Frauenberger, Alissa N Antle, Monica Landoni, Janet C Read, and Jerry Alan Fails. 2018. Ethics in interaction design and children: A panel and community dialogue. In *Proceedings of the 17th ACM Conference on Interaction Design and Children*. 748–752.

[7] Jessica L. Korte. 2017. *YoungDeafDesign: A method for designing with young Deaf children*. PhD. Griffith University. https://doi.org/10.25904/1912/3087

[8] Jessica L. Korte, Aurora Constantin, Cristina Adriana Alexandru, Jerry Alan Fails, Eva Eriksson, Judith Good, Helen Pain, Juan Pablo Hourcade, Franca Garzotto, and Annalu Waller. 2019. Pushing the Boundaries of Participatory Design. In *Human-Computer Interaction – INTERACT 2019*, David Lamas, Fernando Loizides, Lennart Nacke, Helen Petrie, Marco Winckler, and Panayiotis Zaphiris (Eds.). Springer International Publishing, Cham, 747–753. https://doi.org/10.1007/978-3-030-29390-1_74

[9] Jessica L Korte, Aurora Constantin, Cara Wilson, Cristina Adriana Alexandru, Gavin Sim, Janet Read, Judith Good, Jerry Alan Fails, and Eva Eriksson. 2021. Participatory Design of the World's Largest DPD Project with Children. In *Interaction Design and Children* (Athens, Greece) *(IDC '21)*. Association for Computing Machinery, New York, NY, USA, 687–691. https://doi.org/10.1145/3459990.3460514

[10] Cosmin Munteanu, Heather Molyneaux, Wendy Moncur, Mario Romero, Susan O'Donnell, and John Vines. 2015. Situational Ethics: Re-Thinking Approaches to Formal Ethics Requirements for Human-Computer Interaction. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems* (Seoul, Republic of Korea) *(CHI '15)*. Association for Computing Machinery, New York, NY, USA, 105–114. https://doi.org/10.1145/2702123.2702481

[11] Maarten Van Mechelen, Gökçe Elif Baykal, Christian Dindler, Eva Eriksson, and Ole Sejer Iversen. 2020. 18 Years of Ethics in Child-Computer Interaction Research: A Systematic Literature Review. In *Proceedings of the Interaction Design and Children Conference* (London, United Kingdom) *(IDC '20)*. Association for Computing Machinery, New York, NY, USA, 161–183. https://doi.org/10.1145/3392063.3394407