WORKING ETHICALLY IN PARTICIPATORY RESEARCH WITH CHILDREN

By Janet C. Read, Peggy Gregory, Gavin Sim, Matthew Horton

Abstract

In this paper we present the ABCD framework for working ethically with children and young people in participatory design studies. This framework covers A – Agreement and consent made between all participants and interested parties; B – Behaviour of the research team towards the activities, requiring them to examine their motivations and to be honest in their interactions with children; C – Classroom experience in participatory sessions during which children are encouraged to discuss the nature of their participation, and D – Dissemination of the work and planning appropriate follow on activities to ensure that children are informed about the outputs from their contributions. We discuss the process by which we developed the framework, the challenges raised by working in this way with children and the role of values in participatory research.

Keywords

Ethics, Children, Participatory Design.

1. Introduction

The ChiCi group has been designing and evaluating technologies with children for about ten years, and our work has gradually evolved over time. In this paper we discuss our approach to establishing ethical ways of working with children when we use them as participants in our research, and we highlight some of the problems that emerge when we work with children in this way.

In the early days our work mainly involved collecting data from children as they tested technology (Read 2005). In these early studies our ethical concerns focused on the gathering and storing of personal data, the use of photographs, the use of logging equipment and the way in which we managed inclusion and informed consent. At the time most of these challenges were perceived to be covered by University ethical guidelines, although with hindsight this supposition seems naïve.

More recently we have started to work more collaboratively with children, doing design work with children and teenagers and longitudinal studies where the team repeatedly goes back to one group for information and confirmation of ideas (Mazzone, Read et al. 2008; Read, Fitton et al. 2011). This work has led us to question how children are ‘used’ in these studies, and resulted in us challenging some of our practices. Emerging from a funded project in which the group took the lead on design events across several countries, and during which the team started to challenge some of its own practices, an effort was made to clarify and formalise appropriate approaches and methods for ethical working with children. Our aim was to develop an ethos of being honest with the children with whom we were working in order to better ensure that at all times we were doing ethically sound work. Procedures that

we developed have not been driven solely by a desire to get 'university ethical clearance' but specifically by a desire to do what is right.

2. The ABCD Framework

Our approach to working ethically with children has evolved, and several iterations of method improvement have taken place (Read and Fredrikson 2011); culminating in the development of the ABCD framework. This framework covers A – Agreement and consent; B – Behaviour of the research team towards the activities; C – Classroom experience in participatory sessions, and D – Dissemination of the work.

Agreement and consent is a fundamental part of any ethical framework for working with human participants, and is generally covered by standard University ethical procedures. Many of the studies undertaken by the ChiCi group are run in schools or during MESS Days (Read 2011), and in both cases we work with whole classes of children (Mazzone, Tikkanen et al. 2012). MESS Days are events held in our labs at the university to which a class of school children are invited, accompanied by their teachers, to do a series of fun research activities. MESS days typically involve a series of evaluation and participatory design sessions running simultaneously in different labs. Classes are split into smallish groups and each group gets an opportunity to try out a number of activities. We have found this is a useful way for us to provide children with a fun and varied experience, and at the same time for us to be able to gather research data for a number of studies. When preparing for our research events we provide information about our studies and gain consent from class teachers and parents. However, we have also developed a practice whereby we explain our research objectives and obtain consent from children while we are working with them in the classroom. This involves ensuring that we set time aside to briefly explain to children what a University is, what research is, and how the work they are doing will feed into our research outputs. As we work with children from a range of age groups from the ages of 6 to 16 we have to adapt our explanations considerably depending on the age of the group we are working with.

Behaviour of the research team during research activities covers preparing for research days. We have developed a series of materials to guide and help researchers when they are working with children (www.chici.org/index.php/resources). These materials are useful as every year new postgraduate students and members of staff join the team so there is an ongoing need for training. Some of this material covers basic rules for interacting with children, such as not taking photos without parental permission, and not to be alone in a room with a child. It also includes tips about how to plan activities that are fun and inclusive for all the children in the group, such as always being encouraging towards the children, making sure they know it is the technology that is being tested and not the child, and that they cannot 'fail' at an activity. These guidelines help researchers to improve the planning of their activities, even if they do not yet have much experience of doing research with children. Additionally, this stage requires the research team to examine their own motivations before carrying out the work, and to commit to explain the project and their motivations to the children in an appropriate way, to be honest when questioned and honest when writing up research.

Classroom behaviour is about the atmosphere created for participating children when we work with them in the classroom or lab. This follows on from the previous preparation activities that the researchers have undertaken. This stage is about ensuring that we create a positive and enjoyable environment when we work with children. We firmly believe that

when we ask children to take part in our research activities, even if we are using experimental methods, that their experience should be fun and that all members of a class should be able to take part. As part of this remit we ensure that we explain ourselves clearly, that we make time to have a dialogue with children before and after activities, that we listen to the views expressed by the children, and that children's ideas are equally considered. We also ensure that all children are facilitated to participate and understand that we value their participation in the events that we have planned, but that they may choose not to take part in activities if they so wish.

Dissemination is about ensuring that we plan appropriate follow-on activities with groups of children to keep them informed about the outputs we have produced from their contributions. Feedback is often given to adults who participate in research projects, but is rarely given to children. We believe that when children's participation in a research project is at a high level, we should use 'ethical symmetry' and treat children in the same way as we would adults (Christensen and Prout 2002). For example we are committed to showing children software that has been developed as a result of their participation, as well posters and journal papers and summarising to them, in appropriate language, the main findings of our studies and providing news letters to schools detailing the outputs of our research.

3. Values in Participatory Design with Children

Our concerns can be positioned alongside those of others working with technology-related value sensitive design and participatory design (Iversen, Halskov et al. 2010; Yarosh, Radu et al. 2011). These approaches treat ICT as constitutive technology which shapes human life and hence consider IT design to be a value-laden activity (van den Hoven 2006).,

Participatory design was developed in Scandinavia in the 1970's and 1980's and embeds democratic values by working directly with stakeholder groups (Bodker, Ehn et al. 2000). From these emancipatory theoretical foundations it advocates that stakeholders should explicitly influence values, norms and ethical considerations that are embedded into designed artefacts. At root participatory design is a form of collaborative working by which groups of users can influence design decisions. However these days much ICT development produces generic software with wide user bases, so it is more practical to work with user representatives than with whole user groups. Another feature of software development is that there is a need for both technical and end-user design, and these are inter-related. Hence when planning design processes we need to consider how these designers may best work together. With this is mind, in the ChiCI group we have explored different models of participatory design sessions in which design experts (software designers and researchers) work with domain experts (the end-users, children) to produce designs. We have envisaged the amount of input end-users contribute to a design as a continuum along which there are identifiable, but not discrete, modes. These range from low level contributions (informant design), to a partnership approach (balanced design) to high level contribution (facilitated design) in which the domain expert takes the lead. (Read, Gregory et al. 2002). Although in our early projects we often worked with children as informants, we are now often working with a balanced or facilitated approach. When participants contribute directly to a design, it is important that they understand the nature of the artefact they are contributing to, and are aware why and how they are contributing. Participatory work with children is a way of giving them a voice in the way their technology is designed. We believe that given an appropriate framework, children can become very involved in design projects. This approach not only

ensures ‘usability’ and enhanced ‘user experience’ but also is a way of ensuring the focus of the design is on what is appropriate for children of that age, and is understandable by them.

Value sensitive design is a way of making values part of technical design, research and development, and provides a useful perspective on our work. Value sensitive design emerged in the early 1990s from the work of Batya Friedman and Peter Kahn (Friedman and Kahn 1992; Friedman 1996), and it attempts to deliberately incorporate principled values into design processes. The basis of the approach is that values are inevitably incorporated into design and as a result technical artefacts that are designed without a consideration of values often exhibit pre-existing biases. These biases reflect the culture or sub-cultures of the designers and the organisations in which they work. A key technique used by value sensitive design is stakeholder analysis, which is used to build a thorough understanding of both direct and indirect stakeholders. Participatory design is also a technique that can be used to achieve this. This is particularly pertinent when designing with children, as their world is far removed from the work of technical software production. Our work in ensuring we have a dialogue with children during participatory design sessions is a starting point for considering values in design.

4. Discussion

Central to our approach is the need to identify and critically examine the values we enact in our research. In our early work many of the ethical conversations we had were somewhat ad hoc. In our recent work we have attempted to formalise some procedures, so that we can more easily reproduce good practice. However, within these boundaries, the nature of the ethical discourse and decisions that are made are not a foregone conclusion, but are dependent on team members engaging in ethical discussions about the project in hand. For each project the ethical decisions that are made will depend on the project context, the participants and the technology being developed.

This work has uncovered some particular difficulties and contradictions that arise when doing participatory design with children. These include finding effective ways of explaining our work in language that young people will understand, unpicking different aspects of our intentions, finding effective ways of enabling children to make real choices about what happens to their ideas, being transparent about the process of eliciting design ideas, being fair when choosing which designs to implement, finding understandable ways of explaining research outcomes to children.

Sometimes we have found that compromises are necessary. For example, one of our aims has been to ensure that we explain the nature of our research before we start a design activity. However, when working with children, particularly younger groups, we find that our sessions are time-limited by a number of factors including the children’s attention span. Whereas a group of adults may need only a few sentences of introduction to a research project, most young children need a lot more explanation in order to understand what a University-led research project is. With limited time slots we need to make sure that we leave enough time for the children to do the design activities, so the amount of time available to explain our work can be restricted.

In terms of communicating the purpose and practicalities of research to children and allowing them to consent in ‘as informed a manner as possible’ we feel that we have made some advances. For a recent study we developed checklists (Read, Horton et al. 2013) to assist us

to ensure we have the relevant information at hand when we talk to children and we have produced a set of work booklets for children, designed for three age groups, that better explain the terms ‘research’ and ‘university’. In the same study we found that teachers and teaching assistants were pleased that we explained ‘scientific ideas’ to the children, and they suggested that for the younger children in particular ‘seeing’ the tangible outputs from their participation would help to make sense of the process, as the concept of consent and idea release are possibly a bit difficult for them to understand.

We acknowledge the many drivers that motivate our work. We therefore need to honestly question the purpose and appropriateness of what we do both from a research perspective and from an ethical perspective. As well as considering how we explain projects to children, we also ask a range of other questions when we commence a study such as: whether the technology we are building is appropriate, what range of motivations we have for the project, to what extent children can sensibly inform the design of such technology, how can we devise a fair method to use and include children’s ideas, how do we honestly explain projects to children and help them to understand their role in the process. When we ask these questions we acknowledge that as well as being interested in design engaging, fun and educational technology with children, other factors come into play. For instance we often use certain technologies because they are readily available, we may run a study because we want to publish a paper in a particular journal, and we choose certain activities because they showcase the work of our group. These are the realities of research constraints for all researchers, but we believe that it is important to acknowledge them.

One aspect that has not yet been clarified is transparency in the process of eliciting design ideas from children. This remains an area where more needs to be done. Our group believes it would be beneficial to be able to tag idea development and are working methods for doing this. The aim would be to be able to identify key significant contributors to a final product. Whilst it is true that ideas developed using participatory design procedures cannot be copyrighted they can at least be attributed.

5. Conclusions

We have presented the ABCD framework for working ethically with children in participatory research, and explained how and why it has been developed over time in our work with children. Also, we have discussed how our approach links to the traditions of participatory design and value sensitive design, and explored some of the tensions and difficulties we experienced as we tried to develop our approach. Our work continues, and future work aims to improve the clarity of our dialogue with children.

6. References

Bodker, S., P. Ehn, D. Sjogren and Y. Sundblad (2000). Cooperative Design - Perspectives on 20 years with 'the Scandinavian IT Design Model'. NordiCHI 2000. Stockholm, Sweden.

Christensen, P. and A. Prout (2002). Working with ethical symmetry in social research with children. Childhood 9(4): 477-497.

Friedman, B. (1996). Value-sensitive Design. ACM Interactions 3(6): 17-23.

Friedman, B. and P. H. Kahn (1992). Human Agency and Responsible Computing: Implications for Computer System Design. Journal of Systems and Software 17(7-14).

Iversen, O. S., K. Halskov and T. W. Leong (2010). Rekindling Values in Participatory Design. 11th Biennial Participatory Design Conference, 2010.
Mazzone, E., J. C. Read and R. Beale (2008). Understanding Children's Contributions during Informant Design. BCS-HCI 2008. Liverpool, UK.
Mazzone, E., R. Tikkanen, J. C. Read, N. Iivari and R. Beale (2012). Integrating Children's Contributions in the Interaction Design Process. International Journal of Arts and Technology 5(2-4): 319-346.
Read, J. C. (2005). The Usability of Digital Ink Technologies for Children and Teenagers. BCS-HCI 2005. Edinburgh, UK.
Read, J. C. (2011). MESS Days: Working with Children to Design and Deliver Worthwhile Mobile Experiences. User Experience 10(1).
Read, J. C., D. Fitton, B. Cowan, R. Beale, Y. Guo and M. Horton (2011). Understanding and Designing Cool Technologies for Teenagers. CHI 2011. Vancouver, Canada.
Read, J. C. and M. Fredrikson (2011). What do we Take? What do we Keep? What do we Tell? Ethical Concerns in the Design of Inclusive Socially Connected Technology for Children. ETHICOMP 2011. Sheffield, UK.
Read, J. C., P. Gregory, S. J. MacFarlane, B. McManus, P. Gray and R. Patel (2002). An Investigation of Participatory Design with Children - Informant, Balanced and Facilitated Design. Interaction Design and Children, Maastricht, Holland.
Read, J. C., M. Horton, G. Sim, P. Gregory, D. Fitton and B. Cassidy (2013). CHECk: A Tool to Inform and Encourage Ethical Practice in Participatory Design with Children. CHI'13. Paris, France, ACM.
van den Hoven, J. (2006). ICT and Value Sensitive Design. Proceedings of the Conference "Information Society: Governance, Ethics and Social Consequences". P. Goujon, S. Lavelle, P. Duquenoy, K. Kimppa and V. Laurent. Namur, Belgium, IFIP. Part 2**:** 67-72.
Yarosh, S., I. Radu, S. Hunter and E. Rosenbaum (2011). Examining Values: An Analysis of Nine Years of IDC Research. IDC 2011. Ann Arbor, Michigan, US.