Towards Bridging the Participation and Power Barriers Through the Power of Play

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Abstract

We propose to describe two projects we have conducted in the past 4 years. The first project involved an exploration of the ways in which participatory design sessions can be conducted with children across borders and distances at minimal expense in order to overcome funding shortages. The second project explored approaches to designing games that enable players of digital games to outplay power outages as a means of overcoming (and taking advantage of the opportunities offered by) electrical power outages in locations where power failures are a frequent occurrence due to under developed infrastructure. We believe both projects offer a good starting point for further discussion and collaboration.

Author Keywords

Participatory design; Children; Play; gameplay; ICT4D; HCI4D; Design.

ACM Classification Keywords

H.5.0. Information interfaces and presentation (e.g., HCI): General

Bridging the Participation Barrier

People who work across borders have to contend with many borders, there are disciplinary and cultural "borders" that constrain thought and behavior, there are resource "borders" that control and limit the use of certain technologies and resources, there are political borders that govern the physical access to certain regions and thus limit the ability to work across the border.

Many of these borders can be overcome with an open mind, a mind willing and wanting to embrace the richness and difference of others and a mind ingenious enough to find novel solutions to resource scarcity. However open minds are often also wandering minds as solutions are frequently found elsewhere (in different disciplines, different cultural practices and more often than not different geographies, and while wondering maybe cheap in monetary terms, wandering is anything but and can easily constrain the physical movement (and thus perspective) of anyone (even those in the most resource endowed countries).

To get around this hurdle we have been experimenting with ways of overcoming the costs associated with gathering a more diverse set of perspectives for design work (primarily centered around games and entertainment but the approach could be applied to any domain) by conducting participatory design (PD) sessions in the following two ways:

1. Conducting the sessions as part of an international conference thus providing researchers and practitioners with the ability to conduct PD work in a novel location and subsuming most of the cost and logistical effort into the conference (most of the logistical effort is borne by the conference organizers and attending the PD session adds no extra cost other than the costs already paid in order to participate in the conference). So far we have organized 4 such workshops, each consisting of 4-5 PD sessions running in parallel as part of the Advances in Computer Entertainment Technology (ACE) conference in Kathmandu, Nepal, Twente, the Netherlands, Funchal, Portugal and Johor, Malaysia between 2012 and 2015. Some discussion of the Nepal workshop can be found in [1].

2. Developing a PD session kit that is then sent out to willing organizers who then conduct the workshop at their location and send short videos to the designers as a source of inspiration and an indication of expectation. As part of ACE 2013 we deployed a kit designed to explore how children thought about the cities they were living in as a source of ideas for game developers in a hacketon conducted as part of the conference. We deployed the kit in 8 locations: Freilassing (Germany), Enschede (Netherlands), Funchal (Madeira, Portugal), Kingston (Ontario, Canada), Porto Alegre & São Paulo (Brazil), Nairobi (Kenya), and Lahore (Pakistan). The children at each location explored their notions of place and game ideas via a series of PD exercise and then produced a short video as a way of illustrating their ideas and creating a memento of the activity. The videos were later watched by the participants of the hacketon who used the videos as an inspiration for a video game which they developed and which (when possible) was sent to the children who participated in the

workshops. A discussion of the workshops and some of the produced video can be found in [5].

By accounts of all the participants over the years the workshops were a success in terms of the new insights and experiences gleaned by the organizers and participants and the foundation they laid for future work. However, the workshops suffer from a sustainability problem due for the most part in lack of funding and lack of manpower beyond that offered by the conference and we would like to use the HCI Across Borders Development Consortium as venue for exploring ideas and gaining momentum for the continuation of the PD workshops concept beyond its current framework.

Bridging the Power Barrier

When it comes to digital games there are two kinds of power at play, the power of electricity, i.e. the current that drives the devices that facilitate digital play and the power of play, i.e. the spark of engagement that fuels the desire of the player to continue playing the game.

Both of these powers are exogenous elements that do not come in the "box" with the rest of the game elements but are added when gameplay commences. In addition both are "flow" dependent. Digital devices are dependent on a constant flow of electricity for their operation and players require a constant flow of experiences to engage them with the game and to make them want to continue to play it.

The roots of this work lie in Nepal, a country with a sorely lacking electric infrastructure where electric power is often available for only 8 hours a day. We [3]

initially set out to explore the development of digital games that will continue to engage the player in play when the power fails and the electronic components die out but have since [2,4] further developed the idea into a concept that treats the lack of electrical power as an opportunity for further exploration. Thus we have started to explore the development of games that deliberately alternate between power and no power states as core element of their design as a way of weaving together the analog and digital worlds.

Potential Collaboration and Work

Our contribution to the workshop can be in one or a combination of the following forms:

1. From the thematic perspective we can describe the methodology we used in the workshops conducted over the past 4 years and the lessons we have learned and see how we can help any of the other participants incorporate and harness the ideas in their own work. At this point we have not contacted the collaborators from previous iterations of the ACE workshops but we could do that and see if any are interested in joining one of the other proposed projects.

2. From the project perspective we would like to collaborate with participants interested in the creation of hybrid analog/digital games that play with notions of power and no power in all the possible meanings and permutations of the terms.

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