Our Toys – Proposal for a Dissemination Project

Letizia Jaccheri, 08.05.2012

Short description

We propose a workshop program to aim at increased visibility of Information and Communication Technology (ICT) issues among children of age 12. Workshops will be held at ReMida center and linked to bigger events and meaningful context, concretely the Art and Technology event Meta.Morph 2012 in Trondheim.

This project builds on:

1. research results in the software engineering group in the field of open source software applied to creativity and learning [1] [2]

2. connections to the local IT and electronic industry [4];

3. previous dissemination efforts in the area of art and IT [5] [6] [7] [8] [9]

4. connections to user communities [3].

Our experience indicates that combining physical artifacts, programming languages and sensors is a promising approach to increase interest in both art and technology, in a workshop setting. When creating interactive ICT experiences the following three conditions should be strived for: 1) active engagement in the learning process; 2) personal connection and 3) creating projects that are of value to a larger community.

ReMida centers work according to Reggio Emilia education principles. This means that the initiative for creative actions should spring from the child itself. ReMida centers are magic places with a lot of appealing objects where children start to work without being activated by adults.

The project builds on the experience gained in the ArTe project with implementation and dissemination of creative workshops for children based on makers event based on open source hardware/software (like Arduino, 3D printers) and recycled materials.

MetaMorph is a technology and art biennale that receives a lot of attention in the local and National media and that lasts from September 27 to October 28, 2012. The workshop will be held during this period.

The project will start 1st of June 2012 and finish 31 November 2012.

Goal and user group

The practical goals of the project reported in this paper are to strengthen pupils' interest in computer science and art, and to present pupils with possibilities of becoming creators of ICT interactive experiences rather than pure consumers. We have previously worked with children of age 12, attending their last year at primary schools (Barneskolen) as we aim at making them aware of ICT possibilities and significance before they enter high school (Ungdomskole) and they get trapped into stereotyped roles

(like "nerd boys like ICT", "girls do not like science") that may discourage them to get interest in ICT. We have previously worked with the goal of recruiting girls to ICT [10].

The project Our Toys goes a step further by aiming at involving children with disabilities with focus on blind children in the process of creating interactive digital experience, here called toys with basic sound, tactile, and motor skills.

Responsible and Human Resources

- Letizia Jaccheri, professor IDI, NTNU: Scientific responsible, workshop organization, contact with blind children organization, management of ethical issues, dissemination in the media. She will allocate 10% of her time for 6 months (this corresponds to 76 KNOK own effort).

- Professor Einar Aas, professor NTNU: Electronics expert, contact with Electronics companies such as Atmel, Nordic Semiconductor, dissemination in the media. He will allocate 5% of his time, corresponds to (this corresponds to approximately 40 KNOK own effort).

- Pål Bøyesen Remida: Art, creativity, sound, children, Workshop host. He will use one week of his time, supported by Trondheim Municipality.

- Espen Gangvik: Meta.Morph director. He will use coordination time, supported by Teks.

- One project responsible: workshop leadership, contact with user organizations and schools, contact with media 100 hours a 700 NOK hour 70KNOK to be requested to IME

Resources

Recycled material will be provided by ReMida.

Scratch Picoboard will be provided by IDI (already available).

3D printer: will be acquired, see http://www.makerbot.com/distributors/ 3000€ will get you started right away with a nice (dual extrusion machine) and plenty of plastic. 25KNOK

Total Budget

Total budget of 211 KNOK of which 95KNOK to be requested to IME. The total budget of 211 KNOK does not comprise the efforts of the involved artists. This effort is not quantified here but it has to be seen as resources provided to the project.

References

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3.   Andrea Bocelli Foundation, http://www.andreabocellifoundation.org

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5.   Harald Nortun, Letizia Jaccheri, Lise Hovik, Marianne Baudouin Lie og Vebjørg Tingstad Hva er Lek, Norwegian Culture Council, 2012 (In Norwegian) http://www.xn--kunstlftet-5cb.no/kunnskapsbasen/lek/

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6.   Julia Krankenhagen, Komputer + Kunst = Kreatrivitet, DRAMA N.04 2010

7.   Setter barn, kunst og teknologi i sentrum, Universitetsavisa, November 2010

8.   Kunst i vitenskapens tegn, Under Dusken, Januar 2011

9.   Åtte ynge kunstkritikere, Kultur Adresseavisen, November 2010

10. ArTe Art and technology, www.artentnu.com last accessed May 2012.

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